Electric Power Industry of Serbia

2018 Environmental Report



Belgrade, May 2019

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INTRODUCTION

Public Enterprise "Electric Power Industry of Serbia" 2018 Environmental Report was prepared on the basis of the recommendations regarding the contents and form - report template provided by the European Bank for Reconstruction and Development (<u>APPENDIX 1</u>) as well as on the basis of data on environment status monitoring submitted by the responsible persons of PE EPS organizational units.

Hazardous and harmful substances air emission data have been provided on the basis of calculation based on measured mass concentrations, i.e. their flows and units' (boilers) operating hours in 2018.

Outline of Serbian environmental legislation used to evaluate and compare the measured pollutant values and other parameters with the permissible values is provided in <u>APPENDIX 2</u>.

Abbreviations used in the Report are provided in <u>APPENDIX 3</u>.



I PUBLIC ENTERPRISE "ELECTRIC POWER INDUSTRY OF SERBIA"

Public Enterprise "Electric Power Industry of Serbia" Belgrade is a vertically organized enterprise, 100% stateowned. PE EPS is the founder and sole owner of two subsidiaries as follows:

- Distribution System Operator "EPS Distribucija" Ltd. Belgrade, for the performance of activities of electricity distribution and distribution system operation in the Republic of Serbia, and
- "EPS Trgovanje" Ltd. Ljubljana for the performance of activities of electricity trading abroad in order to optimize the use of its own resources.

EPS has founder's rights in three public companies in Kosovo and Metohija. Since June 1999, PE EPS has been unable to manage its capacities in Kosovo.

Until July 1st 2015, PE EPS operated through 13 subsidiaries, and after conducting status changes, an acquisition of 11 subsidiaries was made by the parent-controlling company.

The main activity of Public Enterprise "Electric Power Industry of Serbia" is energy activity: supply of electricity, industry code 35.14 – Electricity trading.

In addition to the main activity, Public Enterprise performs activities of electricity distribution and distribution system management, and economic entity management.



Coal Production in PE EPS

In PE EPS coal is produced by the following organisational units of PE EPS: Branch MB "Kolubara", "Kostolac" TPPs-OCMs Branch and PE "Kosovo" OCMs**. Amounts of produced raw and dried coal (except for Kosovo OCMs**) in 2018 are given in Table 1.

PUBLIC ENTERPRISE "E	LECTRIC POWE		OF SERBIA"					
COAL PRODUCTION IN 2018								
Branch		Coal production (t)			Overburden removal (m³čm)			
Diancii		Planned	Achieved	%	Planned	Achieved	%	
BRANCH MB "KOLUBAR	A" – OPEN CAS	ST MINES						
Field B		3,200,000	1,780,161	55,63	15,600,000	14,211,741	91,10	
Field D		8,870,000	9,617,455	108,43	22,580,000	18,417,558	81,56	
Field G		4,500,000	3,977,048	88,38	5,000,000	3,154,680	63,09	
Tamnava – West Field		12,380,000	12,998,959	105,00	26,685,000	30,317,602	113,61	
TOTAL (RAW COAL*):								
BRANCH MB "KOLUBARA" – OPEN		28,950,000	28,373,623	98,01	69,865,000	66,101,581	94,61	
CAST MINES								
Kolubara Prerada	With dust	550,000	421,957	76,72	-	-	-	
(dried coal)	Without dust	500,000	392,064	78,41	-	-	-	
TPPs-OCMs "KOSTOLAC	" - OPEN CAS	MINES						
Drmno		10,207,000	8,604,213	84,30	42,000,000	33,080,081	78,76	
TOTAL:								
"KOSTOLAC" TPPS-OCMS BRANCH –		10,207,000	8,604,213	84,30	42,000,000	33,080,081	78,76	
OPEN CAST MINES								
TOTAL: OPEN CAST MIN PE EPS	ES	39,157,000	36,977,836	94,43	111,865,000	99,181,662	88,66	

* Total raw coal amount, partially used for dried coal production

** As of June 1999, PE EPS does not operate its Kosovo and Metohija capacities

Electricity Generation in PE EPS

In PE EPS electricity is generated by the following thermal power plants: "Nikola Tesla" TPPs, "Kostolac" TPPs-OCMs, "Panonske" CHP, PE "Kosovo" TPPs*, and by the following hydropower plants: "Đerdap" HPP and "Drinsko – Limske" HPPs. Electricity generation data (except for PE "Kosovo" TPPs*) in 2018 are given in Table 2.

Branch	Unit	Electricity generation (GWh)			
Dianch	Ont	at the generator	at the generator		
BRANCH NIKOLA TESLA TPPs					
	A1 - A2	1.898,50	1.727,90		
NIKOLA TESLA A TPP	A3 - A5	4.990,50	4.540,10		
	A6	1.789,80	1.610,00		
NIKOLA TESLA B TPP	B1 - B2	8.233,00	7.733,10		
	A1 - A4	328,60	309,30		
KOLUBARA A TPP	A5	274,00	250,80		
MORAVA TPP	А	486,50	443,50		
TOTAL: BRANCH NIKOLA TESLA		18.000,90	16.614,70		
TPPs					



BRANCH "KOSTOLAC" TPPs-OCMs			
"Kaatalaa" A TDD	A1	635,90	585,60
KUSIOIAC A TPP	A2	1.537,90	1.424,80
"Kaatalaa" D TDD	B1	2.454,40	2.217,20
KOSIOIAC BIPP	B2	2.346,20	2.112,10
TOTAL: "KOSTOLAC" TPPs-OCMs		6.974,40	6.339,70
BRANCH "PANONSKE" PPs			
NOVI SAD CHPP		279,60	238,30
ZRENJANIN CHPP		-	-
SREMSKA MITROVICA CHPP		-	-
TOTAL: "PANONSKE" POWER		279,60	238,30
PLANTS			
TOTAL: TPPs and CHPs		25.254,90	23.192,70
HYDROPOWER PLANTS			
BRANCH "DERDAP" HPPs		7.226,50	7.189,10
"DRINSKO-LIMSKE" HPPs		3.933,70	3.920,00
SMALL HPPs		43,70	43,60
TOTAL: HYDRO POWER PLANTS		11.203,90	11.152,70
PE "ELEKTROKOSMET"*		-	
TOTAL: PE EPS (exclusive of K&M)		36.458,80	34.345,40

* As of June 1999, PE EPS does not operate its Kosovo and Metohija capacities

Fuel Consumption in PE EPS Thermal Power Plants

Table 3 shows the solid, liquid and gaseous fuel consumption data by PE EPS TPPs and CHPs in 2018.

						Table		
PUBLIC ENTERPRISE "E	LECTRIC P	OWER INDUSTRY	OF SERBIA"					
FUEL CONSUMPTION IN	2018							
		Fuel						
Organizational unit	Unit /boiler	Coal	Heavy fuel oil	Oil	Gas	Biomass		
		t	t	t	Stm ³	t		
BRANCH "NIKOLA TESL	A" TPPs"							
	A1	1.503.944,00	3.223,00	-	-	-		
	A2	1.551.180,00	3.275,00	-	-	-		
	A3	3.068.025,00	2.078,00	-	-	-		
NIKULA TESLA A TPP	A4	1.890.491,00	3.795,00	-	-	-		
	A5	3.030.954,00	2.189,00	-	-	-		
	A6	2.834.843,00	2.083,00	-	-	-		
	B1	6.056.628,00	8.693,00	-	-	-		
NIKULA TESLAD IFF	B2	6.537.266,00	8.997,00	-	-	-		
	K1	223.271,00	-	343,00	-	-		
	K2	-	-	-	-	-		
	K3	202.832,00	-	189,00	-	-		
KULUBARA A IPP	K4	102.324,00	-	108,00	-	-		
	K5	119.331,00	-	127,00	-	-		
	К6	453.004,00	-	885,00	-	-		
"MORAVA" TPP	A1	591.360,00	1.287,00	293,00	-	-		
TOTAL: "BRANCH NIKOL TESLA TPPs	A "	28.165.453,00	35.620,00	1.945,00	-	-		



BRANCH "KOSTOLAC"	FPPs-OCMs					
	A1	926.658,00	-	1.005,00	-	-
RUSTULAG A IFF	A2	1.934.953,00	-	686,00	-	-
	B1	2.807.800,00	3.016,00	-	-	-
KUSTULAC BIPP	B2	2.682.130,00	2.135,00	-	-	-
TOTAL: BRANCH "KOSTOLAC" TPPS- OCMS		8.351.541,00	5.151,00	1.691,00	-	-
BRANCH MB "KOLUBAR	a" – Orga	NIZATIONAL UN	T "PRERADA"	1	1	
VREOCI HEATING PLANT	К1 И К2	208.308,00	193,60	-	-	-
TOTAL: BRANCH MB KO	LUBARA	208.308,00	193,60	-	-	-
BRANCH "PANONSKE"	CHPs					
"NOVI SAD" CHP	А1 (К1 и К2)	-	-	-	0,43	-
	A2 (K3)	-	-	-	97.498,24	-
	A1	-	-	-		-
ZRENJANIN CHP	A2	-	-	-	120,22	-
	АЗ (КЗ и К4)	-	-	-	-	-
"SREMSKA MITROVICA" CHP	S2400 1-3	-	-	-	613,67	-
	Biomass boiler	-	-	-	91,54	5,95
TOTAL: BRANCH "PANC CHPs	NSKE"	-	-	-	98.324,10	5,95
TOTAL			Γ		1	ſ
PUBLIC ENTERPRISE "E POWER INDUSTRY OF S	LECTRIC ERBIA	36.725.302,00	40.964,60	3.636,00	98.324,10	5,95

Emission of Substances from Thermal power Plants Affecting the Air Quality

Complete data on emission of substances from thermal power plants affecting the air quality in 2018 for PE EPS organizational units (except for PE Kosovo TPPs*) are given in Table 4.

				Table 4
PUBLIC ENTERPRISE "ELECTRIC PO	WER INDUSTRY OF SE	RBIA"		
AMOUNTS OF EMISSION OF SUBSTA	NCES FROM THERMAL	. POWER PLANTS AF	FECTING THE AIR (QUALITY IN 2018
Organizational unit		t/ye	ar	
Organizational unit	Particulate matter	SO ₂	NO _x (NO ₂)	CO ₂
"NIKOLA TESLA" TPPs BRANCH	7.533,00	196.898,00	26.993,00	19.341.895,00
"KOSTOLAC" TPPs-OCMs BRANCH	1.883,00	157.828,00	12.354,00	7.375.613,85
"PANONSKE" CHP BRANCH	0,39	0,10	562,44	183.554,47
"KOLUBARA" MB BRANCH - ORGANIZATIONAL UNIT PRERADA	80,39	793,55	123,25	182.809,40
TOTAL: PUBLIC ENTERPRISE "ELECTRIC POWER INDUSTRY OF SERBIA"	9.496,78	355.519,65	40.032,69	27.083.872,72



Work Injuries in PE EPS

Table 5 shows data on the number of work injuries in 2018 for PE EPS Organizational units.

PUBLIC ENTERPRISE "ELECTRIC POWER INDUSTRY OF SERBIA"					T	able
WORK INJURIES IN 2018						
Organizational unit	Number of	Injurie	es - numbe	er of em	ployees	ratio
-	employees	Minor	Severe	Fatal	Total	%
"KOLUBARA" MB BRANCH	11.907	150	49	1	200	1,68
"KOSTOLAC" TPPs-OCMs BRANCH – OPEN CAST MINES	2.193	11	6	0	17	0,78
OPEN CAST MINES	14.100	161	55	1	217	1,54
"NIKOLA TESLA" TPPs BRANCH	2.039	18	5	0	23	1,13
"KOSTOLAC" TPPs-OCMs BRANCH – THERMAL POWER PLANTS	766	11	1	0	12	1,57
"PANONSKE" CHPs BRANCH	399	4	1	0	5	1,25
THERMAL POWER PLANTS:	3.204	33	7	0	40	1,25
"ĐERDAP" HPPS BRANCH	732	7	3	0	10	1.37
"DRINSKO-LIMSKE" HPPs BRANCH	434	1	1	0	2	0,46
"RENEWABLE ENERGY RESOURCES" BRANCH	50	0	0	0	0	0,00
HYDRO POWER PLANTS:	1.216	8	4	0	12	0,99
TC "BEOGRAD"	664	11	6	0	17	2,56
TC "NOVI SAD"	1.069	24	4	0	28	2,62
TC "KRALJEVO"	1.602	23	5	1	29	1,81
TC "KRAGUJEVAC"	446	13	2	0	15	3,36
TC "NIŠ"	876	12	3	0	15	1,71
TECHNICAL CENTERS:	4.657	83	20	1	104	2,23
PE EPS HQ	775	7	3	0	10	1,29
	1					
BRANCH "EPS SUPPLY"	1.143	1	3	0	4	0,35
	909	7	1	0	8	0.88
	724	6	1	0	7	0,00
DA "KRALJEVO"	903	9	1	0	10	1.11
DA "KRAGILIEVAC"	296	3	3	0	6	2.03
DA "NIŠ"	555	3	0	0	3	0.54
DISTRIBUTION SYSTEM OPERATOR	3.387	28	6	0	34	1,00
TOTAL: PUBLIC ENTERPRISE "ELECTRIC POWER INDUSTRY OF SERBIA"	28.482	321	98	2	421	1,48

Note: Relevant data on fatalities are given in the Section relating to the relevant PE EPS Organizational unit.

PE EPS Employees' Health Protection

Table 6 pretents data on employee's health protection, which includes obligatory medical examination prior to employment, as well as periodical examinations with the aim of determining employees' work ability, conducted during 2018 in PE EPS Organizational units.



PUBLIC ENTERPRISE "ELECTRIC POWER INDUSTRY OF SERBIA"

EMPLOYEE'S WORK ABILITY IN 2018

	of	F	Periodic e	xaminatio	ns			For	work		
Organizational unit	umber nploye	Refer exami	red to nation	Examine	ed	At	ole	Limite	d ability	Disa	bled
	ē Z	no.	%	no.	%	no.	%	no.	%	no.	%
"KOLUBARA" MB BRANCH	11.907	9.548	80,19	9.081	95,11	5.158	56,8	3.765	41,46	158	1,74
"KOSTOLAC" TPPs-OCMs BRANCH - OCM	2.193	1.188	54,17	1.131	95,20	1.008	89,12	108	9,55	12	1,06
OPEN CAST MINES:	14.100	10.736	76,14	10.212	95,12	6.166	60,38	3.873	37,93	170	1,66
	1	T	n			n	T	1			
"NIKOLA TESLA" TPPs BRANCH	2.039	1.627	79,79	1.608	98,83	1.447	89,99	137	8,52	24	1,49
"KOSTOLAC" TPPs-OCMs BRANCH – THERMAL POWER PLANTS	766	516	67,36	481	93,22	441	91,68	34	7,07	1	0,21
"PANONSKE" CHPs BRANCH	399	307	76,94	305	99,35	220	72,13	84	27,54	1	0,33
THERMAL POWER PLANTS:	3.204	2.450	76,47	2.394	97,71	2.108	88,05	255	10,65	26	1,09
		1	n	1		n	1	1	ſ	1	
"ĐERDAP" HPPS BRANCH	732	387	52,87	387	100,00	384	99,22	28	7,24	3	0,78
"DRINSKO-LIMSKE" HPPs BRANCH	434	135	31,11	133	98,52	114	85,71	16	12,03	3	2,26
"RENEWABLE ENERGY RESOURCES" BRANCH	50	43	86,00	43	100,00	43	100,00	0	0,00	0	0,00
HYDRO POWER PLANTS:	1.216	565	46,46	563	99,65	541	96,09	44	7,82	6	1,07
	-	-	-			-		-			
TC "BEOGRAD"	664	342	51,51	342	51,51	341	99,71	1	0,29	0	0,00
TC "NOVI SAD"	1.069	639	59,78	634	99,22	541	85,33	92	14,51	1	0,16
TC "KRALJEVO"	1.602	1.019	63,61	1.009	99,02	837	82,95	162	16,06	10	0,99
TC "KRAGUJEVAC"	446	264	59,19	264	100,00	210	79,55	52	19,70	2	0,76
TC "NIŠ"	876	516	58,90	513	99,42	456	88,89	43	8,38	14	2,73
TECHNICAL CENTERS:	4.657	2.780	59,70	2.762	99,35	2.385	86,35	350	12,67	27	0,98
	1			•		1					
PE EPS HQ	775	0	0,00	0	0,00	0	0,00	0	0.00	0	0.00
		I	,				,	1	,		,
BRANCH "EPS SUPPLY"	1,143	20	1.75	20	100.00	20	100.00	0	0.00	0	0.00
			.,		,		,	-	-,	-	-,
DA "BEOGRAD"	909	326	35.86	326	100.00	310	95.09	16	4,91	0	0,00
DA "NOVI SAD"	724	313	43.23	313	100.00	302	96.49	11	3,51	0	0,00
DA "KRALJEVO"	903	540	59.80	537	99,44	456	84.92	76	14.15	5	0,93
DA "KRAGUJEVAC"	296	155	52.36	154	99.35	126	81.82	23	14.94	5	3,25
DA "NIŠ"	555	300	54,05	293	97,67	252	86,01	38	12,97	3	1,02
DISTRIBUTION SYSTEM OPERATOR	3.387	1.634	48,24	1.623	99,33	1.446	89,09	164	10,10	13	0,80
TOTAL: PUBLIC ENTEPRPRISE "ELECTRIC POWER INDUSTRY OF SERBIA"	28.482	18.185	63,85	17.574	96,64	12.666	72,07	4.686	26,66	242	1,38



1 "KOLUBARA" MINE BASIN BRANCH

The core activities of "Kolubara" MB Branch comprise mining, processing and transportation of coal. Organizationally, it is comprised of the Head Office and four organizational units:

- 1. Open Cast Mines Baroševac;
- 2. Prerada, Vreoci,
- 3. Projekat and
- 4. Metal.

Organizational unit "Open Cast Mines –Baroševac" has four active open cast mines: 1. "Field B/C" 2. "Field D" 3. "Tamnava West Field" and 4. "Field G".

The Sector for Environmental Protection and Improvement deals with environmental tasks and its role is to prevent, control, mitigate and remediate all forms of environmental pollution. This sector comprises the following divisions: 1. Environment Protection and Enhancement Division – the organizational unit "Open Cast Mines – Baroševac"; 2. Biological Reclamation Division; 3. Waste and Hazardous Substances Division and 4. Environment Protection and Enhancement Division - organizational unit "Prerada" – Vreoci.

A KOLUBARA MB BRANCH – "OPEN CAST MINES –BAROŠEVAC" BRANCH

1.1. Overview and Status of Permits

Overview and status of permits, licenses and other necessary approvals realized in 2018 are shown in Table 7.

MB KOLUBARA BRANCH -	"OPEN CAST MINES –BAROŠEVAC" BRANCH		
Overview and status of peri	mits in 2018		
Open cast mine	Permits, licenses and other necessary approvals obtained in 2018 Project name and status	Applications for new or extension of existing permits	Note
	Water approval.		
	Water approval compliance report dated 10 May 2013.		
	Detailed Mining Design - Expansion of the Field C open cast mine, Projekt Branch, Lazarevac, 2009, Decision on the execution of mining works under the Detailed Mining Design No. 310-02- 0397/2010-06 dated 25 August 2010. Valid until 31 December 2014.	Mining Works	Collection of necessary
Field B/C	Decision No. 310-02-0397/2010-06 dated 6 June 2014 stipulating the execution of mining works in line with the Detailed Mining Design was obtained.	submitted under the Supplementary Mining Design 18	documentation for the "Kruševica" mine expansion is in progress."
	Supplementary Mining Design - Stone excavation at the "Kruševica" open cast mine, "Project" Branch, Lazarevac, 2011; Technical audit was executed.	August 2015.	
	Technical Mining Design – Field "C" outside dump and 1 st ECS system. Technical audit of the project was performed by the Mining Institute Ltd. Belgrade No. 2392 dated 18 June 2014.		



	Decision approving the "Kruševica" Open Cast Mine Stone Excavation Environmental Impact Assessment Study was obtained.		
	Decision No. 310-03-218/88-02 dated 24 June 2014 approving the "Kruševica" latite and latite breccia mining field was obtained.		
	Balance reserves certificate identifying latite and latite pyroclastics reserves of the "Kruševica" deposit was obtained, with the state as at 31 December 2011, Decision No. 310-02- 00494/2012-03 dated 06 March 2014.		
	Preparation of Detailed Mining Design for permanent cancellation of stone excavation at "Kruševica" open cast mine is in progress.		
	Supplementary Mining Design – "Field C" OCM. Technical audit conducted by the Tera & Gold Beograd, a company for production, engineering, designing and marketing, March 2015.		
	Water approval decision No. VIII-04-325.2- 12/2015 dated 21 July 2015.		
	Water approval decision for the OCM "Field D" Supplementary Mining Design dated 13 December 2013, was obtained.		
	"Field D" OCM Supplementary Mining Design, "Projekt" Branch, Lazarevac, 2009, Decision on the execution of mining works under the Supplementary Mining Design № 310-02- 0327/2010-06 dated 7 May 2010. Valid until 31 December 2017.		
Field D	Mining Design for the North-western area of OCM "Field D". Technical audit performed by the Mining Institute Ltd. Belgrade No. 3801 dated 24 October 2014.		
	Technical Mining Design – Overburden Removal and Coal Production at the Southern Slope of OCM "Field D". Technical audit conducted by the Institute for Mining and Metallurgy Bor.		
	Mining Design of OCM "Field D" dewatering in front of the ECS system inside the OCM "Field E" zone. Technical audit performed by the Mining and Metallurgy Institute Bor.		
	"Veliki Crljeni" Detailed Mining Design, "Projekt" Branch, Lazarevac, 2006.	The Deguest for	
	Decision on the execution of mining works under the "Veliki Crljeni" OCM Detailed Mining Design 310-02-0765/2008-06 dated 03 February 2010. Valid until 31 December 2014.	Approval of the Environmental Impact Assessment	Collection of necessary documents for submitting The Request for Conducting
Veliki Crljeni	Mining works approval decision under the Detailed Mining Design – "Veliki Crljeni" OCM No. 310-02-0765/2008-06 dated 22 April 2015.	Study for the Supplementary Mining Design – "Veliki Crieni"	Mining Works under the Supplementary Mining Design – "Veliki Crlieni" OCM is in
	Decision approving the use of dewatering structures developed under the Detailed Mining Design – "Veliki Crljeni" OCM No. 310-02- 0164/2013-03 dated 16 June 2014.	OCM was submitted.	progress.



	Water approval No. 325-04-976/2009-07 dated 6 August 2009.	
	Crushing Plant: Supplementary Mining Design of the "Tamnava" Coal Preparation Plant – Phase I, <i>Delta inzenjering</i> , Belgrade, 2011.	
	Supplementary Mining Design – "Veliki Crljeni" OCM Expansion. Technical audit conducted by the "Tera & Gold" Beograd, a company for	
	Environmental Impact Assessment Study for the Supplementary Mining Design – "Veliki Crijeni" OCM Expansion. Approval of the Environmental Impact Assessment Study for the Supplementary Mining Design – "Veliki Crijeni" OCM Expansion no. 353-02-345-2016-16 dated 16 September 2016.	
	Supplementary Mining Design – "Tamnava" Coal Preparation Plant Phase II, № 310-02- 00900/2014-02 dated 23 July 2015.	
	Decision of MME approving works under Supplementary Mining Design for transport, disposal, fine coal landfill, homogenization, taking and transport of fine coal at mining field 321A, at the territory of Lazarevac municipality and Ub municipality no. 310-02-00647/2015-02 dated 19 August 2016.	
	Water approval application submitted for buildings i.e. works for which water requirements were issued under Supplementary Mining Design – "Veliki Crljeni" OCM Expansion no.0402- 526782/1-16 dated 14 December 2016.	
	"Tamnava West Field" Supplementary Mining Design, Projekt Branch, Lazarevac 2014. Technical audit of the Tamnava West Field Supplementary Mining Design performed by the Mining and Metallurgy Institute Bor.	
	Decision approving the mining works No. 310-02- 00187587/2014-03 dated 25 August 2014.	
	Mining Design – "Veliki Crljeni" ECS System Operation at the "Tamnava West Field" OCM. Technical audit conducted by the Mining Institute Belgrade № 1723 dated 30 April 2014.	
Tamnava West Field	Decision № 310-02-01473/2013-03 dated 20 February 2014 approving the use of the mobile shifting station and BW.	
	Water approval decision for the Supplementary Mining Design – "Tamnava West Field" OCM No. 325-04-451/2104-07 dated 14 April 2014.	
	Technical Mining Design – Commissioning of the ECS system taken over from the "Veliki Crljeni" OCM. Technical audit report by Mining Institute Belgrade.	
	Technical Mining Design – ECS System Operation on the "Tamnava West Field" OCM. Technical audit performed by the Tera & Gold Beograd, a company for production, engineering, designing and marketing.	



	Decision on trial operation of excavator "SchRs" 740x25/6 on "TWF" OCM no. 310-02- 01525/2015/2 dated 08. August 2016. Application for use of mining constructions submitted – use permit for bucket wheel excavator "SchRs" 740 25/6 (G-V) no. 04.02- 475291/1-16 dated 17 November 2016.	
	MME Reserves Certificate, Committee for Establishment and Certification of Reserve Mineral Resources no. 310-02-00410/2010-06 dated 28 September 2010.	
	on the expanded mining field number 321A no.310-02-00311/90 dated 21 January 2015.	
	Detailed Mining Design- "Field G" OCM, prepared by OC Projekt biro (2012). Technical audit by Mining Institute Ltd. Belgrade.	
Field G	Approval of Environmental Impact Assessment Study – opening and construction of "Field G" OCM no. 353-02-1150/2012-02 dated 11 December 2012.	
	Decision on water approval under Detailed Mining Design – "Field G" (Belgrade City Administration, Secretariat for Water) d. VIII -04-325.2-32/2014 dated 02 March 2015.	
	MME decision approving mining works under Detailed Mining Design – "Field G" OCM no. 310- 02-00639/2015-02 dated 30 June 2015.	

1.2. Monitoring and Environmental Impacts

1.2.1. Air Quality Measurements

Systematic air quality monitoring in the vicinity of open cast mines of MB "Kolubara" Branch continued in February, April, June and August of 2018 at 12 measuring points – six in the vicinity of east and six in the vicinity of west mines (simultaneous measuring at six measuring points in the duration of 15 days, followed by the simultaneous measuring at the remaining 6 measuring points during the 15 days; after a month-long break, the series is repeated; UTM measured at 8 points). Data on air quality for 2018 are given in Table 8.



MB KOLUBARA BRANCH – "OPEN CAST MINES –BAROŠEVAC" BRANCH

Air quality in 2018

944	,	,		-																																															
				P (µ	M10 g/m³)						(n	As g/m	³)							(n	Cd g/m	1 ³)							(n	Ni g/m³)						(Pt (ng/i) n³)							ben py (ng	izo (a rene g/m³	a) e ³)		
		February			March		August-	September		February			March			September			February			March		40.1201 V	August- Sentember			February			March		August-	September		- 	rebiualy		March			August- Sentemher	000000		February			March		August-	September
	LV (µg/m³)	Average	No. Of days >	LV (µg/m³)	Average No. Of davs >	1 // (110/m ³)	Averade	No. Of days >	۲۸ (hg/m³)	Average	No. Of days >	LV (µg/m³)	Average	No. Of days >	LV (µg/m³)	Average	No. Uf days >	LV (µg/m³)	Average	No. Of days >	LV (µg/m³)	Average	No. Of days >	LV (µg/m³)	Average	No. Of days >	LV (µg/m³)	Average	No. Of days >	LV (µg/m³)	Average	No. UT days >	LV (µg/m ³)	No Of days >	1 1 1 1	LV (µg/m²)	No. Of days >	(Em/n) //	Average	No. Of days >	LV (µg/m³)	Average	No. Of days >	LV (µg/m³)	Average	No. Of days >	LV (µg/m³)	Average	No. Ut days >	LV (µg/m³) Åværade	No. Of days >
Radljevo Building	50			50	63,8 10	50	30 48.6	-0,0 6	6			6	4,38	0	6	3,46	0	5			5	4,7	0	5	0,27	0	20			20	10,5	0	20	, z	0			÷	7.9	0	1	11,9	0	-			1	1,03	0 .	ן הג	0,2
Kalenić Waterworks	50	32,6	0	50		ξÛ	34.1	-,-0	9	3,9	2	9			9	3,4	2	5	0,4	0	5			5	0,2	0	20	4,1	0	20		Q	20	3,Z		- 7	14, Z) .	_		-	10,7	0	-	1,6	10	.			1 60	0,0
Volujak	50			50	33,3	50	42.1	1	9			6	4,3	3	9	12,5	10	5			5	0,6	0	5	0,6	0	20			20	4,6	0	20	0'r	0 4			ţ	5.9	0	-	11,1	0	-			1	2,33 1	13	1 ח זב	0
Mali Crljeni	50	131,3	6	50		ξÛ	32.4	0	9	6,5	3	9			9	3,1	0	5	0,3	0	5			5	0,2	0	20	6,9	-	20		ç	20	,'c		_ r	7'C	•	-		~	7,8	0	-	5,45	14	-			1 1 2 7	7

Water supply Medoševac	50	9,3	8	50		50	36,7	1	9	8,2	12	9		¢	3 م	8,1	<u>2</u> u	20	t. c	o ro	,		5	0,4	0	20	5,9	0	20			20	14	7 7	1	1/,1		-		~	20,8	0	1	2,34	14	~		-	1	0,20
Pumping station	Kolubara 50	47,6	5	50		50	42,6	6	9	4,7	m I	6		c.	٥	2,6	- u	90	2. 0	ы с	,		5	0,2	0	20	4,7	0	20			20	13,9	т. Г		19,4	-	-		-	24,7	0	1	2,20	14	-			1	- 0
Erection yard Field E	50			50 55 2	7	50	23.5	0	9		,	9	9.6	12	٥	6.3	<u>v</u> <u>v</u>	>		ъ	0.5	0	5	0.2	0	20			20	4.2	0	20	7.4		-		-	9.3	0	-	8.4	0	1			-	8.34	15	1 00 0	0.20
Stara Montaža	50	40.9	4	50		50	26.9	0	9	3.8	2	9		c	٥	3.5 2	- u	~ ~ ~	t. c	o ro	,		5	0.2	0	20	5.1	0	20			20	5.1	0,		18./	-	-		-	9.8	0	1	2.56	11	-				0.12
Transformer station Jabučje	50			50 21 E	1	50	20.5	0	9		,	9	2.8	2 2	٥	 	o u	810	2.0	o ro	,		5	0.3	0	20			20	2.8	0	20	5.8	0,	-		-	2.4	0	-	6.5	0	1			-	2.25	11	1	0 0
TWF central control room	50			50 37 3	1.0	50	46.3	3	9		,	9	3.5	2 4	٥	4.1	י ר	>		л У	0.3	0	5	0.4	-	20			20	4.5	0	20	14.6	т п	-		-	. 1.8	0	-	13.7	0	1			1	3.19	14	1	0.24
Water Supply Prerada	50			50 506	2.00	50	56.9	10	9		,	9	6.5	- '	0	15.3	<u> </u>	>		ъ	0.3	0	5	0.4	0	20			20	5.4	0	20	11.1		-		-	7.7	0	-	14.6	0	1			-	4.22	13	1 1	4
Pumping station	Brerada 50	47.1	5	50		50	34.8	1	9	5.7	5	9		c	٥	3.6	л <u>г</u>	20	? c	л с	,		5	0.3	0	20	3.8	0	20			20	6.9	0,	1 1	7.01				-	10.7	0	1	2.24	13	L			1	0.0z

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1.2.2. Emission Measurements of Matters Affecting Water Quality

By joint engagement of internal laboratories "Tamnava", the Center for Coal and Wastewater Testing, and external laboratories, the legally defined analysis of wastewaters and surface waters is conducted in the area of MB "Kolubara".

Dewatering System Water

Water originating from the preliminary dewatering and dewatering systems represents a technological part of the coal production system. Waters pumped (mining wastewaters) from these systems are discharged over a sedimentation tank into the surrounding watercourses, as follows:

- OCM "Field B/C", Baroševac into the river Peštan and into the river Turija;
- OCM "Field D", Medoševac into the river Peštan;
- OCM "Tamnava West Field" into the river Kolubara.

In accordance with the law, the quality control of the recipients is carried out by the authorized laboratory.

Table 9 shows the pumped water quality results from open cast mines (from the sedimentation tank into the recipient) in 2018.

				Table 9
KOLUBARA BRANCH MB – BRANCH	"OPEN CAST MINES"	BAROŠEVAC		
Water quality in 2018				
Parameters	OCM "Field G"	OCM "Field B'/C', Baroševac	OCM "Field D" Medoševac	OCM "Tamnava West Field
Electrical conductivity (µs/cm)	468- 547	489- 621	729- 791	451- 588
рН	7,5- 8,0	7,1-7,5	7,4–7,8	7,7-7,9

Sanitary water

Open cast mines are supplied with drinking water from five regional water supply systems: Medoševac, Kalenić, Junkovac, Nova Montaža and Tamnava - East Field. The control of drinking water is conducted by the authorized laboratory of the Belgrade Public Health Institute.

Table 10 shows the data on the quantities of wastewater generated from the drainage of mines and quantities of drinking water used in 2018. The amount of generated sanitary wastewater can be estimated on the basis of the quantity of the supplied drinking water.

KOLUBARA BRANCH MB – BRANCH "(OPEN CAST MINES" BAROŠEVAC	
Water quantity in 2018 (m ³ /god.)		
Open cast mine	Total amounts of pumped water (m ³)	Supplied drinking water (m ³)
Field B/C	359.296	-
Field D	2.649.987,6	1.282.917
Field G	2.779.580	172.840
Tamnava West Field	12.606.834	938.441



1.2.3. Emission Measurements of Matters Affecting Soil Quality

Within the area of "Kolubara" MB there is no soil emission which is caused by the activities of the mine basin, which means there are no soil emission measurings.

During 2018, soil quality testing was conducted at 19 locations. The tested parameters were: clay content, humus content, organic carbon content (TOC), available phosphorus, total content of N, Cd, Cr, Cu, Ni, Pb, Zn, Hg, As, B, Ca, Mg, Mn, Fe, fluoride content (F⁻), chloride content (Cl⁻), nitrite content (NO2⁻), nitrate content (NO3⁻), bromide content (Br⁻), orthophosphate content (PO43⁻), sulfates content (SO42⁻), hydrocarbons of petroleum origin - gasoline (C6-C10), hydrocarbons of petroleum origin – diesel (C10-C28), mineral oils ((C10-C40), polycyclic aromatic hydrocarbons (RAH) – total, polichlorinated biphenyls (PCB). The next table shows the measured, limit values and remediation values [mg/kg] for metals, since exceedances were measured only for them. Table 11 shows the measured, limit values and remediation values of metals in soil.

KOLUBARA	BRANCH	MB – BRAN	NCH "OPE	N CAST MI	NES" BAR	OŠEVAC						
Measured, lii	mit values	and remed	liation valu	ues of meta	als in soil i	n 2018						
Tested parameter	Measured value	Limit value	Remediati on value	Measured value	Limit value	Remediati on value	Measured value	Limit value	Remediati on value	Measured value	Limit value	Remediati on value
	,	Veliki crljen	i	Kale	enić waterw	orks	Local co	ommunity C	vetovac		TS Kalenić	;
Chromium (Cr)	120,6	89,2	338,9	54,2	65,0	338,9	103,7	74,8	284,4	208,3	124,9	474,5
Copper (Cu)	62,4	29,9	157,9	15,9	21,7	157,9	34,1	25,4	134,2	33,9	38,14	200,9
Nickel (Ni)	103,2	29,6	177,5	42,0	17,5	177,5	78,3	22,4	134,5	170,6	47,4	284,0
Lead (Pb)	68,2	74,9	466,8	2,1	61,2	466,8	18,7	67,4	420,1	11,0	88,5	551,5
Zinc (Zn)	154,8	116,7	600,0	45,7	78,1	600,0	82,2	94,7	487,0	86,4	163,8	842,6
Mercury (Hg)	0,2	0,3	9,1	0,3	0,2	9,1	0,3	0,2	8,3	< 0,1	0,3	10,9
Arsenic (As)	6,8	24,9	47,3	4,0	19,5	37,0	6,1	21,9	41,6	6,9	30,4	57,6
		Radljevo		Vre	oci waterwo	orks	Ja	ukovac sch	ool		Strmovo	
Chromium (Cr)	214,9	118,4	449,9	152,4	142,8	542,8	85,8	79,6	302,3	87,5	109,4	415,9
Copper (Cu)	35,2	36,2	191,1	28,3	43,4	228,8	24,9	27,2	143,3	46,9	34,1	179,9
Nickel (Ni)	180,9	44,2	265,2	116,7	56,4	338,4	59,3	24,8	148,7	56,3	39,7	238,3
Lead (Pb)	13,4	85,3	532,1	8,9	97,3	606,4	17,9	70,3	438,1	7,6	81,8	510,2
Zinc (Zn)	83,8	154,3	793,6	79,7	190,5	979,7	64,7	102,6	527,5	62,4	142,3	731,9
Mercury (Hg)	< 0,1	0,3	10,5	< 0,1	0,4	11,9	< 0,1	0,3	8,6	< 0,1	0,3	10,1
Arsenic (As)	6,7	29,1	55,3	6,0	33,9	64,3	6,9	23,1	43,8	5,9	27,7	52,6
	Ν	/lercury (Hg	1)	Ν	/lercury (Ho	a)	Ν	Mercury (Hg	1)	Ν	/lercury (Ho	g)
Chromium (Cr)	115,3	99,5	378,1	73,2	69,8	265,2	36,9	74,7	284,0	59,3	65,0	247,0
Copper (Cu)	24,2	31,7	167,2	51,1	24,3	128,4	17,7	24,0	127,0	19,4	21,4	113,0
Nickel (Ni)	53,4	34,8	208,5	57,7	19,9	119,4	25,9	22,4	134,2	49,7	17,5	105,0
Lead (Pb)	13,8	77,8	485,2	41,9	65,6	408,7	27,0	65,1	405,9	27,3	60,7	378,3
Zinc (Zn)	69,5	128,8	662,6	115,0	88,2	453,5	55,8	91,2	469,0	66,0	77,3	397,3
Mercury (Hg)	< 0,1	0,3	9,6	0,4	0,2	8,1	0,8	0,2	8,2	0,4	0,2	7,6
Arsenic (As)	5,1	26,1	49,5	25,5	21,2	40,2	8,4	21,0	39,9	9,5	19,3	36,5
	C	eroviti strea	im	Mali	Borak rete	nzija	Ra	dljevo reten	zija		Skobalj	
Chromium (Cr)	41,0	69,9	265,6	75,5	119,6	454,4	60,5	119,8	455,4	159,8	109,9	417,6
Copper (Cu)	14,4	23,3	123	25,0	36,9	194,8	22,2	36,8	194	30,1	33,3	175,7
Nickel (Ni)	39,6	20,0	210,0	61,8	44,8	268,7	51,9	44,9	269,5	172,4	40,0	239,7
Lead (Pb)	24,4	63,8	398,0	24,2	86,5	539,4	20,3	86,3	537,9	9,5	80,5	501,8
Zinc (Zn)	71,3	85,7	440,6	66,2	157	807,2	69,9	156,8	806,2	80,1	140,6	723,2



Mercury (Hg)	0,9	0,2	8,0	0,4	0,3	10,6	0,5	0,3	10,6	0,1	0,3	10,0
Arsenic (As)	8,8	20,5	38,9	4,0	29,6	56,1	3,4	29,5	56,0	6,7	27,2	51,6
	Lukavic	a Kolubara	estuary	V	Vreoci Peštan		Šopić staklenik					
Chromium (Cr)	143,6	105,0	398,8	61,9	79,9	303,8	114,4	104,7	397,8			
Copper (Cu)	29,6	31,8	167,6	17,9	26,1	137,6	31,3	33,2	175,2			
Nickel (Ni)	165,6	37,5	224,9	51,6	25,0	149,8	94,3	37,3	224,0			
Lead (Pb)	18,0	77,9	485,9	19,8	68,5	426,8	3,6	80,3	500,9			
Zinc (Zn)	78,5	133,1	684,6	52,3	100,1	515,0	74,4	136,5	702,0			
Mercury (Hg)	0,2	0,3	9,7	1,3	0,3	8,5	< 0,1	0,3	9,9			
Arsenic (As)	5,3	26,2	49,6	6,7	22,4	42,4	5,7	27,1	51,5			

Overwiev of Reclaimed Areas

Maintenance of reclaimed areas is foreseen by the Branch business plan, together with temporary reclamation measures on new areas. Final reclamation measures are carried out after completion of mining operations, based on the adopted Kolubara Region Spatial Plan.

Within Biological Reclamation Division, Forestry Office manages 720.31 ha of areas reclaimed by afforestation (forests and forestry land), 7.5 ha out of which are outside of "Kolubara MB" Management Basis (Field "D" – 430.44 ha, "Tamnava East Field" – 60.63 ha, Field "B" – 111.65 ha and "Tamnava West Field" – 7.5 ha). Within the Management Basis, within Field "D", there are 49.28 ha of expropriated land and forestry land.

Within Biological Reclamation Division, Agriculture Office conducts the biological reclamation measures on a total area of 99.20 ha of reclaimed area. In 2018, infrastructural works were conducted on reclaimed area of 8.20 ha, so this area was not cultivated. Moreover, regular agricultural production is conducted on expropriated lots of 14.50 ha.

A review of areas recultivated prior to 2018 is shown in Table 12. Table 13 shows the expropriated areas at active mines in 2018.



KOLUBARA BRANCH MB – BRANCH "OPEN CAST MINES" BAROŠEVAC Table 12									e 12										
Review of expropr	iated areas prio	or to 2018																	
Open cast mine	Expropriate	Total land area registered in the land register (ha Expropriate		nd area d in the ster (ha)	Total land area whose use has Land con been changed building (ha)		ntaining gs (ha)	Du	mp site ar	reas(ha))	Reclaimed areas (ha)							
/Facilities	d areas (ha)*								de	Out	tside	Fore	sts	Arabl	e land	Orch	ards	Nurse	eries
		until 2017	in 2018	until 2017	in 2018	until 2017	in 2018	until 2017	in 2018	until 2017	in 2018	until 2017	in 2018	until 2017	in 2018	until 2017	in 2018	until 2017	in 2018
Field D	2.280,13	2.414,00	- 143,44	1.064,98	-200,51	30,15	-5,17	1.352,92	-146,47	0,00	0,00	430,44	0,00	51,00	0,00	7,00	0,00	0,00	0,00
Field B	1.177,28	1.058,81	114,60	402,34	122,64	20,01	-0,70	470,40	-3,66	0,00	0,00	111,65	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Auxiliary machinery	5,38	10,46	- 5,08	0,00	1,95	5,38	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Mines HQ	18,65	18,65	-0,14	0,00	10,48	17,94	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
South Field	444,44	412,06	4,57	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Field G	300,58	235,27	13,18	0,00	0,09	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Field E	431,22	345,45	77,96	0,00	10,04	0,00	20,80	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Tamnava East Field	2.090,94	1.943,23	1,41	82,67	0,00	94,04	0,00	792,39	0,00	0,00	0,00	60,63	0,00	49,40	0,00	0.00	0,00	0,00	0,00
Veliki Crljeni Field	197,81	194,76	15,48	0,00	0,00	1,66	0,00	12,33	6,21	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Tamnava West Field	1.735,71	1.743,70	-12,99	70,13	0,00	48,37	0,00	836,20	-104,81	0,00	0,00	7,50	1,08	0,00	0,00	0,00	0,00	0,00	0,00
Radljevo	339.89	260,87	74,10	0,00	0,00	0,18	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Kladnica	45,58	45,58	-	0,00	-	0,00	-	0,00	-	0,00	-	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
TOTAL:	9.067,61	8.82	2,49	1.56	4,81	232,	66	3.215	,51	0	,00	611,	30	100	,40	7,0	0	0,()0



KOLUBARA BRANCH	KOLUBARA BRANCH MB – BRANCH "OPEN CAST MINES" BAROŠEVAC									
Expropriated areas on active open cast mines of MB Kolubara in 2018 (ha)										
Year	OCM Field B/C	OCM Field D	OCM Veliki Crljeni	OCM Tamnava – West Field	Vilage Vreoci resettlement	OCM Field E	OCM Radljevo	Watercourse and dam repair – The Kolubara, Vranicina, Skobaljski Potok rivers and Kladnica Dam		
2016.	-	-	0,18	1,20	87,80	28,83	42,40	3,75		
2017.	5,46	-	-	-	64,80	20,15	86,33	4,63		
2018.	-	-	-	3,42	40,04	26,94	64,88	-		
Total expropriated areas	5,46	-	0,18	4,62	192,64	75,92	193,61	8,38		



1.2.4. Environmental Noise Measurement

Measuring point for environment noise measurement in 2018:

- Measuring point "Baroševac" 25 July 2018 Baroševac;
- Measuring point "Strana" 25 July 2018 Baroševac;
- Measuring point "Naselje Radljevo" 25 July 2018 Radljevo ;
- Measuring point "Kalenić" 11 July 2018 Kalenić.

Noise measurement results are shown in the Table 14.

Table 14

KOLUBARA BRANCH MB – BRANCH "(OPEN CAST MINES" BAROSEVAC	
Measuring date	25 J	uly 2018
Measuring point	Bar	oševac
	Equivalent level (dB)	Permitted level (dB)
Day level	63.5	65
Evening level	59.4	65
Night level	62.3	55
Measuring date	25 Ju	uly 2018.
Measuring point	"Strana"	Baroševac
	Equivalent level (dB)	Permitted level (dB)
Day level	44.6	65
Evening level	44.9	65
Night level	43.0	55
Measuring date	25.0	7.2018.
Measuring point	"Насеље Рад	љево"/ Радљево
	Equivalent level (dB)	Permitted level (dB)
Day level	48.5	65
Evening level	42.3	65
Night level	40.0	55
Measuring date	11.0	07.2018.
Measuring point	"Калени	ћ"/ Каленић
	Equivalent level (dB)	Permitted level (dB)
Day level	47.7	65
Evening level	52.1	65
Night level	49.3	55

Measurement were carried out with our equipment and by our employees. Preparation of the documents for laboratory certification for environmental noise measurement within the Environmental Department is in progress.



1.2.5. Waste

In 2018, Waste and Hazardous Substances Division activities involved the establishment of waste management systems, procurement of waste management equipment, signing of contracts with the operators licensed to sell – handle waste, reporting to the competent authorities, elaboration of tender documentation and waste sale contracts implementation.

Waste generated within the Branch "Open Cast Mines Baroševac" in 2018 is shown in the Table 15, in line with the Serbian waste management regulations.



KO	OLUBARA BRANCH MB – BRANCH "OPEN CAST MINES" BAROŠEVAC												
Wa	ste generated in 2018		-	-									
			_	Open cast mine/Facility									
	Official nomenclature of the Rules defining waste cat testing and classification, OG RS No. 56/10	cial nomenclature of the Rules defining waste categories, its ing and classification, OG RS No. 56/10		"Field D"	"Field B"	"Tamnav West Field	a d" East Field"	Auxiliary Machi.	Total	Note			
	Name	Index number				G e	enerated	waste a	ımounts				
1.	Used printer cartridge other than the one indicated under 08 03 17	08 03 18	t	0,004	0,000	0,015	0,020	0,000	0,039	Used printer cartridge			
2.	Scraping and processing of ferrous metals	12 01 01	t	5,000	2,000	0,000	0,000	0,000	7,000	Iron and steel scrapings			
3.	Scraping and processing of non-ferrous metals	12 01 03	t	0,300	0,000	0,000	0,000	0,000	0,300	Non-ferrous metals processing scrapings			
4.	Mineral non-chlorinated motor oils, gearbox and lubricating oils	13 02 05*	t	0,000	0,000	0,530	0,120	22,701	23,351	Motor oil, industrial gear oils			
5.	Insulating and heat transfer oils containing PCB	13 03 01	t	0,000	5,780	0,000	0,000	0,000	5,780	Used transformer oils containing PCB			
6.	Mineral non-chlorinated hydraulic oils	13 01 10*	t	0,000	0,000	0,000	0,000	0,000	0,000	Hydraulic oil			
7.	Sludge from oil/water separator	13 05 02*	t	0,000	2,500	0,000	0,000	24,540	27,040	Residue from oil/water separator			
8.	Waste not otherwise specified	13 08 99*	t	0,000	0,000	0,000	0,000	0,000	0,000	Grease and oils containing impurities, filtration oil residue			
9.	Packaging containing residues of substances or contaminated by hazardous substances	15 01 10*	t	0,000	1,450	0,000	0,000	30,460	31,910	Waste metal packaging used for oil and lubricants			
10.	Absorbent and filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	0,730	2,860	0,180	0,500	2,940	7,210	Oil and air filters, oily wiping cloth, working clothes			
				0,000	0,000	0,000	0,000	80,140	80,140	Tires			
11.	Used tires	16 01 03	t	100,04	1,000	0,000	285,000	0,000	386,040	Waste conveyor belting with steel cord, wipers			
12.	Used vehicles, containing neither liquids nor other hazardous components	16 01 06	t	0,000	0,000	0,000	0,000	385,480	385,480	Used vehicles and their parts			
13.	Brake pads containing asbestos	16 01 11*	t	0,000	0,000	0,000	0,250	0,000	0,250	Waste from asbestos packing and brake pads			



14.	Lead batteries	16 06 01*	t	0,225	0,000	0,110	0,000	0,000	0,335	Lead accumulators
15.	Ni-Cd batteries	16 06 02*	t	0,000	0,150	0,002	0,000	0,000	0,152	Ni-Cd batteries
16.	Copper, bronze, brass	17 04 01	t	0,502	0,000	0,000	0,000	0,000	0,502	Copper
17.	Aluminum	17 04 02	t	0,000	0,000	0,000	0,000	0,000	0,000	Used aluminum
				50,000	21,000	7,000	14,320	0,000	92,320	Alloy steel (crawler platforms, crusher hammers, excavator teeth)
				0,000	2,400	0,000	15,420	0,000	17,820	Iron and steel with rubber coating
18.	Iron and steel	17 04 05	t	0,000	0,000	0,000	21,500	0,000	21,500	Iron over 6 mm
				50,000	53,669	46,734	134,000	0,000	284,403	Iron and steel sheets up to 3 mm (switching cabinets, vulcanization containers)
				131,300	247,220	9,662	0,000	98,340	486,522	Iron and steel over 3 mm (sheets, idlers, shafts, structures, steel ropes)
10	Cables other than those specified under 17.0/.10	17 0/ 11	+	61,000	0,360	13,660	1,120	0,000	76,140	High voltage copper cables with insulation
13.		17 04 11	Ľ	29,000	0,000	0,000	0,000	0,000	29,000	Low voltage copper cables with insulation
20.	Insulation materials containing asbestos	17 06 01*	t	0,000	0,000	0,000	0,000	0,000	0,000	Constructing insulation boards containing asbestos
21.	Plastics and rubber	19 12 04	t	0,000	0,000	14,200	0,000	0,000	14,200	Wipers, rubber gaskets, rubber idler rings
22.	Other waste from waste mechanical treatment containing hazardous substances	19 12 11*	t	4,500	0,000	0,000	0,000	0,000	4,500	Oily rubber-plastic gaskets and hydraulic tubes
23.	Fluorescent tubes and other waste containing mercury	20 01 21*	t	0,000	0,000	0,0045	0,018	0,000	0,0225	Oily rubber-plastic gaskets and hydraulic tubes
24.	Paints, inks, adhesives and resins containing hazardous substances	20 01 27*	t	0,000	0,000	0,000	0,000	0,000	0,000	Paint with an expired shelf life
25.	Discarded electrical and electronic equipment other than those indicated under 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	t	0,195	6,990	1,660	7,000	0,000	15,650	Electro-hydraulic thruster brake, other
	Discarded electrical and electronic equipment other			19,270	10,584	0,000	2,000	0,000	31,854	Waste electric motors
26.	than those indicated under y 20 01 21, 20 01 23 and 20 01 35	20 01 36	t	0,000	0,000	0,164	48,000	0,000	48.164	El. Tools, devices and equipment



27.	Scrap metal contaminated with hazardous substances	17 04 09*	t	19,800	0,000	0,000	0,000	0,000	19,800	Oiled idler bearings
28.	Paper and cardboard	20 01 01	t	0,000	0,000	1,240	0,000	0,000	1,240	Used paper and cardboard
29.	Plastics	20 01 39 15 01 02	t	0,000	0,000	0,012	0,000	0,000	0,012	PET packaging



B MB KOLUBARA BRANCH - "PRERADA" BRANCH AND "KOLUBARA METAL" BRANCH

B.1. "PRERADA" BRANCH

MB "Kolubara" Branch – "Prerada" Branch performs the processing and enrichment of raw coal from "Field B/C" and "Field D" open cast mines. Obtained coal is used to supply the power plants, market sale, for industrial consumers, etc.

MB "Kolubara" Branch comprises "Prerada" Branch, which comprises of the following organizational units:

- Operations centre
- Dry separation unit
- Coal enrichment unit
 - Wet separation
 - Drying and classification plant
 - Heating plant
 - Maintenance
- Railway transport unit

- Coal and wastewater testing centre (accredited laboratory)

All units were constructed based on the valid designs and they possess the necessary utilisation permits.

1.1. Overview and Status of Permits

In 2018, "Prerada" Branch did not obtain any new permits. Overview and status of permits is given in Table 16.

MB KOLUBARA BRANCH – "PRERADA" BRANCH							
Overview and Status of Permits in 2018							
Unit	Permits, licenses and other necessary approvals, obtained in 2018 (number and date) Project name and status	New requests for obtaining or extension of valid permits	Note				
Enrichment Unit RU Heating plant	PWSE Srbijavode issues a water permit with a new term of validity of PE "Elektroprivreda Srbije" Branch MB Kolubara OU "Prerada" for the storage of petroleum products for the needs of the facility "Toplana" and discharge of atmospheric waste water and condensates of the steam used to heat the oil within the "Heating Plant" complex within the branch "Prerada", located at CP 1828/1 CM Vreoci Lazarevac Municipality on the territory of the city of Belgrade No.04.08-301484/1-2017 as of June 19th, 2017.	-	2 years from the date of receiving the decision.				
OC "Prerada", Vreoci	The permit is issued to the project manager, "Kolubara" Branch OU "Prerada" – Lazarevac, for the Environmental Impact Assessment study of the Project of the construction of WWTP within OU "Prerada", on the cadastral plot no. 1820 CM Vreoci, 1820 KO Вреоци, Lazarevac Municipality no. 353-02- 1837/2017-02 dated 26 January 2018.	-	-				



1.2. Monitoring and Environmental Impact

1.2.1. Air Quality Measurements

No air quality measurements and monitoring were performed within the "Prerada" Branch impact zone in 2018. Air quality in the area covered by the MB "Kolubara" Branch organisational units is monitored by the City of Belgrade automatic air quality monitoring network.

Belgrade automatic air quality monitoring network, under the jurisdiction of the City of Belgrade, inter alia includes the measuring points on the territory of Lazarevac in the town centre, where soot, SO_2 , NO_2 , O_3 and PM_{10} are measured.

1.2.2. Emission Measurements of Matters Affecting Air Quality

OU Heating Plant Vreoci is a thermal and power facility generating superheated steam used by technological processes, for heating of industrial facilities and the town of Lazarevac, of the capacity 2x60 MW. Flue gases are treated by an electrostatic precipitator and discharged into the air through an 80m high stack.

During 2018, individual measurements of air pollutants were conducted by an accredited laboratory of the Occupational Safety Institute Novi Sad. The Monitoring Programme included measurements of flue gas conditions (temperature, pressure and humidity), flow rate, oxygen content, mass concentrations and emission factors for sulphur dioxide (SO₂), nitrogen oxides (NOx–NO₂), carbon monoxide (CO), hydrogen chloride, hydrogen fluoride and powdery substances.

Legal compliance was evaluated by comparing the measured emissions prescribed by the Regulation stipulating air pollutants emission limit values (OG RS No. 6/2016) and the Large Combustion Plants Directive 2001/80/EC.

Table 17 provides an overview of the results of individual air pollutants measurements for the Vreoci Heating Plant conducted in 2018.

MB KOLUBARA BRANCH -	MB KOLUBARA BRANCH – "PRERADA" BRANCH							
Individual measurements of	Individual measurements of air pollutants emission for 2018							
Mass concentrations of air	Mass concentrations of air pollutants (mg/Nm ³)							
Heat output MWth120 (2 x	Heat output MWth120 (2 x 60MW)							
Organisational unit		Heating Plant Vreoci						
Boiler	1	1 2						
Date	14 May 2018	23 January 2018	12 October 2018					
SO ₂	1.372,98	1.156,4	1.288,11					
NO _x (NO ₂)	190,90	250,09	166,11					
CO	210,31	268,92	240,88					
Particulate matter	55,28	492,23	57,67					

Note: Pursuant to the Directive on the limitation of emissions of certain pollutants into the air from large combustion plants (Off. Gazette of RS, no. 6/16), Article 5 stipulates that old large combustion plants do not have to comply with individual ELVs if from the date of entry into force of the mentioned Directive they are included in the preliminary application for the National Emission Reduction Plan from the stationary large combustion plants. OC Vreoci is included in the National Emission Reduction Plan.

Table 18 provides an overview of air pollutants emissions: powdery substances, SO₂, NO₂ and CO₂ for the "Prerada" Branch in 2018. Annual SO₂ and NO₂ emissions were calculated using the measured mass concentrations, flue gas flow rate and unit operating hours, while CO₂ emissions were determined based on fuel consumption data (given in table 19) and ECF - emission correction factor.



MB KOLUBARA BRANCH – "PRERADA" BRANCH								
Air pollutants emissions in 2018 - Individual emission measurements								
	Vreoci Heating Plant							
Објекат		t/year	,					
	Particulate matter	SO ₂	NO _x (NO ₂)	CO ₂				
Boiler 1	11,95	394,38	54,09	-				
Boiler 2	68,44	399,17	69,16	-				
TOTAL: MB KOLUBARA BRANCH – "PRERADA" BRANCH	80,39	793,55	123,25	182.809,40				

Table 19

MB KOLUBARA BRANC	MB KOLUBARA BRANCH – "PRERADA" BRANCH						
Fuel consumption in 20	Fuel consumption in 2018						
	Vreoci Hea	ating Plant					
Facility	t/y	ear					
	coal	oil fuel					
BOILER 1	208 308 00	103.60					
BOILER 2	200.300,00	193,00					
TOTAL: MB Kolubara Branch – "Prerada" Branch	208.308,00	193,60					

1.2.3. Emission Measurements of Matters Affecting Water Quality

Process water is used in the technological process and coal enrichment (wet separation, drying plant, heating plant) from the water intake from the Kolubara River reservoir. The largest process water amounts are used in the "Prerada" Branch to generate superheated steam, ash and slag transport and wet coal separation. "Prerada" Branch also operates the Vreoci waterworks, supplying potable water to industrial facilities and the Vreoci village.

Wastewater is generated during the technological process of lignite processing and enrichment (wet separation, drying plant, heating plant) - chemical treatment of boiler water and sanitary water treated by the wastewater treatment plant.

Wastewater treatment plant comprises a receiving tank, filter sedimentation tank, fast mixing tank, Emser filters, secondary sedimentation tank, lagoons and purified water collectors. The treated water from the wastewater treatment plant is discharged through the gauge station into a channel and transported to the Kolubara River via a 7km long channel.

The Monitoring Programme includes the following types of water:

- The Kolubara River water upstream of the wastewater discharge;
- Wastewater entering the treatment system;
- Wastewater leaving the treatment system;
- The Kolubara River water upstream of the wastewater discharge.

Testing includes the determination of physical-chemical and microbiological characteristics of water which are of hygiene, water management and technical-technological importance, as follows: water appearance, visible waste materials, water temperature, air temperature, turbidity, colour, pH, sulphates, conductivity, ammonia, total nitrogen, chloride, KMnO4 demand, COD, BOD₅, iron, manganese, and filtered water vaporisation residue, unfiltered water vaporisation residue, suspended solids, particulate matter, phenol matter, arsenic, mineral oil, and microbiological analysis of water.

Quality control of groundwater was performed in 7 piezometers.



During 2018, testing was carried out by the authorized and accredited laboratory of the Occupational Safety Institute Novi Sad. Reports presenting the quality control of the wastewater, treated water, Kolubara River water and groundwater within the "Prerada" Branch impact zone are submitted to: the Ministry of Environmental Protection, Public Water Company "Srbijavode", City Administration - Department for Utilities and Housing Services - Water Division, PE Electric Power Industry of Serbia, and the Secretariat (City of Belgrade Environmental Division for environmental protection).

Table 20 shows the groundwater quality data analysis in the vicinity of the wastewater treatment plant. Evaluation of legal compliance was done by comparing the hazardous and harmful substances concentrations values measured in piezometers with remediation values of hazardous and harmful substances concentration and values indicating considerable groundwater contamination.

Table 20

Table 21

MB KOLUBARA BRANCI	MB KOLUBARA BRANCH – "PRERADA" BRANCH					
Groundwater quality in 2018						
Concentration	RV ¹	Organizational Unit Prerada				
Arsenic (mg/l)	0,06	All measured values were below remediation value (<0,003-0,032)				
Phenols (mg/l)	2	All measured values were below remediation value (<0,1- <0,001)				
Mineral oils (mg/l)	0,6	All measured values were below remediation value (<0,01- 0,542)				

RV¹ - remediation values of concentrations of hazardous and harmful substances and values potentially indicating significant groundwater contamination under the Regulation establishing a program of systematic soil quality monitoring, indicators for assessing the risk of soil degradation and remediation programs development methodology (OG RS No. 88/2010).

Table 21 shows wastewater quality data analysis at the treatment plant inlet and outlet in 2018.

Wastewater treatment plant discharges do not adversely affect the quality of the recipient, i.e. the Kolubara River; there is no significant change in water quality of the Kolubara River.

MB KOLUBARA BRANCH – "PRERADA" BRANCH							
Wastewater treatment plant operating results in 2018							
Parameter	Concentration (mg/l)						
Pollutant	Plant inlet	Plant outlet					
Suspended solids	3.550,00-6.200,00	71,00-830,00					
Organic substances COD	3.740,88-6.657,12	211,29-1.512,06					
Phenols	2,056-4,256	0,026-0,321					
Arsenic	0,008-0,227	<0,004-0,13					

1.2.4. Emission Measurements of Matters Affecting Soil Quality

During 2018 no physical-chemical soil testing in the "Prerada" Branch site was carried out, considering that the analysed soil samples for 2011 and 2012 did not reach values requiring remediation measures in accordance with the Regulation establishing a program of systematic soil quality monitoring, indicators for assessing the risk of soil degradation and remediation programs development methodology (OG RS No. 88/10).



1.2.5. Environmental Noise Measurements

Noise level measurements and the "Prerada Branch" living environment noise impact assessment in 2018 was conducted by the accredited laboratory "Occupational Safety Institute" Novi Sad. Noise level measurements was conducted at two measuring points, namely:

Measuring point 1 is in the northern part of the complex, in the direction of the Drying plant at approximately 380m distance from the facility, and 50m from the railway line. On a clear space with no facilities or any reflecting surfaces in the immediate proximity.

Measuring point 2 is in the southern part of the complex, in the direction of Dry separation at approximatell 200m distance from the facility, and 50m from the railway line. On a clear space with no facilities or any reflecting surfaces in the immediate proximity.

Table 22 shows noise measurements data for "Prerada" Branch unit in 2018.

The assessment of measured noise levels was conducted on the basis of noise indicators limit values at open space and relevant noise levels (additional noise indicators) proscribed by Regulation on Noise Indicators, Limit Values, Methods for Evaluating Indicators of Noise, Disturbance and Harmful Effects of Noise in the Environment ("RS Official Gazette", No. 75/10).

MB KOLUBARA BRANCH – "PRERADA" BRANCH										
Noise levels in 2018 dB (A)										
Noise indicators limit values, Regulation stipulating noise indicators, limit values, methods assessing noise indicators, disturbance levels and harmful living environment noise effects, "RS Official Gazette" No. 75/2010)	*Closed areas				Da ev	y and Night				
						35 30				
	Open areas	Tourist areas, camps and school zones				50	45			
		Purely residential areas				55	45			
		Business and residential areas, trading-residential areas and children's playgrounds				60	50			
		City centre, trading, crafts, administrative zones containing flats, zones along motorways, state and city roads				65	55			
		Industrial, storage and service areas and transport routes without residential buildings			At the border of this zone noise must not exceed the limit value in the zone with which it is bounded.					
"Prerada" Branch	Measuring point 1			leasuring point 2						
05.06.2018										
Referent measuring time interval (h)	*LAeq,30min.		**LRAeq,30min.)	*LAeq,30min.		**LRAeq,30min)				
12 Day and evening 06 - 18 hours	57,0		57	52		53				
	56,1		56	52,1		52				
4 Day and evening 18 - 22 hours	54,3		54	51,7		52				

*Noise levels LAeq,30min. dB(A) for day and evening

**Relevant noise levels LRAeq,30min. dB(A)


1.2.6. Waste

Waste amounts generated in 2018 in "Prerada" Branch are shown in Table 23, according to Serbian waste management legislation.

					Table 23
MB KOLU	IBARA BRANCH – "PRERADA"	BRANCH			
Generate	d types of waste in 2018				
Official n "RS Offic	omenclature of the Rules definir ial Gazette", No. 56/10 dated 10	ig waste categorie August 2010	s, its testing	and classification	
Number	Name	Index number	Unit	Waste amount	Note
1.	Used printer cartridges other than the one indicated under 08 03 17	08 03 18	t	0,194	Used cartridges
2.	Packaging containing residues of substances or contaminated by hazardous substances	15 01 10*	t	1,580	Packaging waste from the used oils and lubricants
3.	Lead batteries	16 06 01*	t	3,360	Lead accumulators
4.	Iron and steel	17 04 05	t	17,500	Iron and steel over 3 mm (idlers, ropes, shafts, other)
5.	Plastics and rubber	19 12 04	t	54,920	Conveyor belts with cloth
6.	Paper and cardboard	20 01 01	t	21,620	Waste paper and cardboard
7.	Discarded electrical and electronic equipment other than the one indicated under 20 01 21; 20 01 23 and 20 01 35 containing hazardous substances	20 01 35*	t	6,660	Waste electronic equipment (computers)
8.	Plastics	20 01 39	t	1,300	PET packaging



B.2. "KOLUBARA-METAL" BRANCH

Within MB "Kolubara" Branch – "Kolubara-Metal" Branch performs designing, production, assembly and maintenance of mining, energy and processing equipment.

"Kolubara-Metal" Branch comprises of the following organizational parts, with short descriptions of technological processes:

- Operations Centre;
- **Production unit:** mechanical and thermal treatment of materials and molding, washing machine parts, washing oily and greasy surfaces of the spare parts;
- **Overhaul unit:** overhaul of mining equipment, washing machine parts, cleaning of oily and greasy surfaces of the spare parts;
- **Montaža Unit**, relocated from the Branch, performs electromechanical assembly of mining, processing and thermal power equipment and facilities;
- **ELMONT Unit,** relocated from the Branch, manufactures spare parts and assemblies workshops, revitalization and regeneration of electrical equipment, maintenance of power and telecommunication facilities on the field and, car and electrical equipment washing;
- Own maintenance.

All the above units were constructed based on the valid designs and they possess utilisation permits.

1.1. Overview and Status of Permits

There were no new permits for Kolubara-Metal Branch in 2018. Overview and status of inspections and decisions are given in the Table 24.

"KOLUBA	"KOLUBARA MB" BRANCH – "KOLUBARA-METAL" BRANCH											
Overview and status of inspections and divisions in 2018												
No. Mark Name												
1.	353-03-00925/61/2018-07, 15.06.2018.	Order for inspection										
2.	353-03-01413/2018-07, 20.06.2018.	Minutes on performed inspection										
3.	353-03-01413/2018-07, 25.06.2018.	Decision of the Environment protection Republic Inspector										
4.	501-91/2018-08, 20.11.2018.	Minutes on inspection in Elmont Unit										

1.2. Monitoring and Environmental Impact

1.2.1. Emission Measurements of Matters Affecting Air Quality

In accordance with the Law and Decision of Environmental Protection Inspector of the competent Ministry, Kolubara-Metal Branch shall measure air emissions from the production capacities within Production Unit as well as boiler emission measurements within Montaža and ELMONT Units.

In 2018, according to the Contract no. 04.04-15264/440-17 dated 21 November 2017 for provision of the service "Air Quality Analysis", individual air emission measurements were performed by accredited laboratory Occupational Safety Institute, Novi Sad. The Monitoring Programme included measurements of flue gas conditions (temperature, pressure and humidity), flow rate, mass concentrations and emission factors for sulphur dioxide (SO₂), nitrogen oxides (NOx–NO₂), carbon monoxide (CO), dust, and organic compounds expressed as a total carbon.

Measured emission values were compared to emission limit values prescribed by the Regulation. Emission measurement results are given in tables 25 and 26, per metering points.



"KOLUBARA MB"	BRANCH – "KOLU	BARA-METAL" BRA	NCH			
Air emission meas	urements in 2018					
Emitted matter	GOSTOL line (E _M) (mg/Nm³)	Steel structures- left outlet hall (E _M) (mg/Nm ³)	structures- Steel structures- putlet hall right outlet hall ELV F (E _M) (E _M) (mg/Nm ³) f ng/Nm ³) (mg/Nm ³)		For mass flow (g/h)	Assessment of results
Nitrogen oxides NO ₂	<2,05	<2,05	<2,05	350	≥1.800	Compliant with legal regulations*
Sulphur oxides SO ₂	<2,86	<2,86	<2,86	350	≥1.800	Compliant with legal regulations*
Particulate matter	1,59	1,07	1,07	150	≥200	Compliant with legal regulations*

 E_{M} - the highest value of emission measurement results reduced by the value of the measurement uncertainty.

"KOLUBARA MB" BR	ANCH – "KOLUBARA-ME	TAL" BRANCH										
Air emission measurements in 2018												
Emitted matter	Painting facility emitter/line two-left outlet (Ем)(mg/Nm³)	Painting facility emitter/line two-right outlet (Ем) (mg/Nm³)	ELV (mg/Nm³)	Assessment of results								
Organic compounds expressed as a total carbon	143,83	104,88	75	Not compliant with legal regulations*								

EM - the highest value of emission measurement results reduced by the value of the measurement uncertainty.

*Legal regulations: Regulation prescribing air emission measurements from stationary sources of pollution (Official Gazette of RS, no. 5/2016), Regulation prescribing emission limit values for air emissions from stationary sources of pollution, except for combustion plants (Official Gazette of RS, no.111/2015) - Annex, General emission limit values, Emission limit values for total dust and Emission limit values for non-organic gaseous substances.

Analysis results show there is no excess emission according to the Regulation, except for the boiler rooms in the Unit for mounting and Unit ELMONT in Lajkovac and painting facility, within the specific part of the new steel structures hall in the Production Unit. The above mentioned off limits occurred due to obsolescence of the boiler in mounting Unit, that was replaced with the new one in the meantime, and in the Unit ELMONT it occurred due to congestion during heating.

1.2.2. Emission Measurements of Matters Affecting Water Quality

Treated water from wastewater treatment plant (separator), installed at washing points of mining equipment and car parts, as well as regenerated parts of equipment for excavators, flows into collectors of atmospheric wastewaters and is transported from Kolubara-Metal Branch with rain sewage into PUTOKS facility and then through the canal into Kolubara River.

According to the Law on Waters (RS Official Gazette, no. 30/10, 93/12 and 101/16), wastewater and treated water, Kolubara River water and ground water quality control is regularly conducted by the authorized and accredited laboratory four times a year.

In 2018, in accordance with the Contracts No. 04.04-15264/238-17 dated 17 May 2917 and 04.04-204/288-18 dated 06 July 2018, testing was conducted by the authorized and accredited laboratory of Occupational Safety Institute, Novi Sad. Four series of wastewater and treated water quality testing were performed. Testing included physical-chemical and microbiological characteristics of water which are of hygiene, water management and technical-technological importance, as follows: water appearance, visible waste materials, water temperature,



air temperature, turbidity, colour, pH value, sulphates, specific conductivity, ammonia, total nitrogen, chloride, KMnO₄ demand, COD, BOD₅, iron, manganese, filtered water vaporisation residue, unfiltered water vaporisation residue, suspended solids, particulate matter, total phosphates, phenol matter, arsenic, mineral oil, and microbiological analysis of water. Results of physical-chemical testing of wastewater for 2018 are given in Tables 27, 28, 29 and 30. Table 27

"KOLUBARA MB" BRANCH – "KOLUE	BARA-ME	TAL" BRA	NCH								
Wastewater physical-chemical testing	in 2018 –	the first of	quarter								
Tested parameter			Measur	ed value			Poforonco valuo*				
rested parameter		II		IV	V	VI					
Water temperature (°C)	7,9	8,9	17,4	6,8	7,8	7,8	30				
Turbidity (NTU) 23 36 79 51 30 96 -											
Conductivity (µS/cm)	571	575	319	563	353	406	-				
Total phosphorus (mg/l)	0,07	0,66	0,29	0,17	0,08	0,22	-				
Fe (mg/l)	0,639	1,201	3,658	1,661	0,825	1,968	-				
Mn (mg/l)	0,075	0,442	0,277	0,072	0,16	0,284	-				
As (mg/l)	<0,003	<0,003	0,011	0,005	0,004	<0,003	-				
Mineral oil (TPH) (mg/l)	0,315	0,878	0,136	0,827	0,647	0,292	10				
Total number of fecal coliform bacteria (cfu/100ml)	60	60	1,2x10 ³	1,2x10 ²	8,1x10 ³	<60	_				

"KOLUBARA MB" BRANCH – "KOLUBA	ARA-ME	TAL" BRA	NCH				
Wastewater physical-chemical testing i	n 2018 –	second q	uarter				
Tested parameter				Deference volue**			
	I	I		IV	V	VI	
Water temperature (°C)	27,9	26,6	22,6	26,0	21,6	25,1	30
Turbidity (NTU)	1,9	286	11,1	110	45	59	-
Conductivity (µS/cm)	600	429	613	259	615	176	-
Total phosphorus (mg/l)	0,03	0,44	0,05	0,03	0,21	0,07	-
Fe (mg/l)	0,55	6,07	1,95	1,71	1,50	0,18	-
Mn (mg/l)	0,03	0,33	0,33	0,09	0,08	2,15	-
As (mg/l)	0,004	0,012	0,005	0,009	0,007	0,013	-
Mineral oil (TPH) (mg/l)	<0,01	45,60	<0,01	15,917	0,181	1,64	10
Total number of fecal coliform bacteria (cfu/100ml)	4x10 ²	1,4x10 ⁴	2,4x10 ⁴	<60	3,9x10 ⁴	3,1x10 ²	-

Table 29

Table 28

"KOLUBARA MB" BRANCH – "KOLUB	ARA-MET	AL" BRAN	СН				
Wastewater physical-chemical testing	in 2018 – t	hird quart	er				
Tested parameter				Poforonoo valuo*			
Tested parameter			=	IV	V	VI	Reference value
Water temperature (°C)	19,4	18,7	20,0	17,9	19,2	19,8	30
Turbidity (NTU)	3,6	116	9,8	35	2,7	115	-
Conductivity (µS/cm)	597	530	580	622	629	396	-
Total phosphorus (mg/l)	0,013	0,78	0,075	0,032	0,208	0,14	-
Fe (mg/l)	<0,05	0,11	0,33	0,07	<0,05	0,22	-
Mn (mg/l)	<0,05	0,21	0,20	0,18	0,05	0,62	-
As (mg/l)	<0,004	0,01	0,01	0,007	0,007	0,03	-
Mineral oil (TPH) (mg/l)	<0,01	1,015	<0,01	0,067	0,081	60,22	10
Total number of fecal coliform bacteria (cfu/100ml)	2,4x10 ³	9,3x10 ²	7,6x10 ²	7x10 ²	2,4x10 ⁴	8,8x10 ²	-

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"KOLUBARA MB" BRANCH – "KOLUBARA-METAL" BRANCH Wastewater physical-chemical testing in 2018 - fourth quarter Measured value **Tested parameter Reference value*** Π V VI L Ш IV Water temperature (°C) 9.4 8,4 22,2 8,4 12,2 9.6 30 Turbidity (NTU) 12,9 428 510 90 2,5 81 -Conductivity (µS/cm) 840 427 447 244 204 599 _ Total phosphorus (mg/l) 0,063 0,407 0,057 0,06 0,167 0,057 _ 0.38 8.25 0.89 1.74 Fe (mg/l) 1.91 6.48 _ 0,10 0,27 Mn (mg/l) 0.06 0.17 0.11 0.05 -As (mg/l) <0,004 < 0,004 < 0,004 <0,004 0,005 0,004 _ Mineral oil (TPH) (mg/l) 0.163 0,741 <0.01 0.052 0,176 3.985 10 Total number of fecal coliform bacteria 3x10² 1.2x10² 3.4x10⁴ <60 1.5x10⁴ 6x10² (cfu/100ml)

* Reference value: Regulation prescribing water emission limit values and deadlines for their reaching ("RS Official Gazette" no. 67/2011, 48//2012 μ 1/2016). Emission limit values for wastewater containing mineral oil, Table 4.1. Emission limit values at surface water discharge point.

Measuring points I, II, IV and VI represent outlets from the separator within Production and Regeneration Unit, Overhaul Unit and ELMONT Unit in Lajkovac, and measuring points III and V are outlets of rain sewage from Production and Regeneration Unit and Overhaul Unit.

During the sampling on certain measuring points, per quarters, samples at outlets were not taken due to separators clogging. Certain represented results do not give a real picture of the separators efficiency due to their clogging and heavy precipitation in intervals prior to and after the sampling.

Based on the represented results it is concluded that the efficiency of wastewaters treatment was reduced and that the wastewaters at separators outlets were not categorized as having satisfactory quality regarding reaching the levels proscribed by the Regulation, and that separators do not perform their function. Likewise, the concentration of suspended solids, organic matter (COD) was significantly increased, while the concentration of iron, phenol and arsenic in wastewaters at the separator outlet fluctuate in great extent. The reason for this reduction in the efficiency of wastewaters treatment is the impossibility of cleaning the oily sludge separators, due to non-existing hazardous waste disposal, during 2018. Namely, in order to maintain the functionality of the plant for wastewaters treatment (separators), the cleaning of oily sludge is necessary, by using the service of hazardous waste disposal which is, by contract, provided by operators – authorized persons for hazardous waste management.

1.2.3. Waste

Waste amounts generated in 2018 in "Kolubara-Metal" Branch are presented in Table 31, according to Serbian waste management legislation.



"KOLUB	ARA MB" BRANCH – "KOLUBARA-METAL" BRANCH				
Generate	d types of waste in 2018				
Official n	omenclature of the Rules defining waste categories, its	testing and classificati	on OG RS No. 56/10		
Number	Name	Index number	Unit of measure	Waste amount	Note
1.	Chips from ferrous metals processing	12 01 01	t	119,180	Chips from iron and steel
2.	Chips from non-ferrous metals processing	12 01 03	t	10,500	Chips from ferrous metals processing (copper, bronze, aluminum)
3.	Used wax and grease	12 01 12*	t	1,800	Waste used lubricants
4.	Non-chlorinated mineral engine oils	13 01 10*	t	5,754	Waste hydraulic oil
5.	Other emulsions	13 08 02*	t	24,460	Sludge from washing points
6.	Waste not otherwise specified	13 08 99*	t	29,900	Waste fuel oil
7.	Absorbent, filter materials (including filter oils not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	4,500	Oily wiping cloth
8.	Lead batteries	16 06 01*	t	1,700	Lead accumulators
9.	Copper, bronze, brass	17 04 01	t	11,300	One-piece sliding bearings made of bronze, electrical parts copper
10.	Aluminum	17 04 02	t	10,400	Aluminum ropes
11.	Iron and steel	17 04 05	t	232,540	Waste steel idlers
				288,240	Iron and steel over 3 mm (idlers, ropes, shafts)
12.	Insulating materials other than those indicated under 17 06 01 and 17 06 03	17 06 04	t	0,780	Insulating materials – glass wool
13.	Plastics and rubber	19 12 04	t	4,880	Rubber rings, rubber gaskets, wipers
14.	Paper and cardboard	20 01 01	t	5,300	Waste paper and cardboard
15.	Discarded electrical and electronic equipment other than the one indicated under 20 01 21 and 20 01 23 containing hazardous substances	20 01 35*	t	3,280	Discarded electrical and electronic equipment (computers)
16.	Discarded electrical and electronic equipment other than the one indicated under 20 01 21, 20 01 23 и 20 01 35	20 01 36	t	16,880	El, tools and equipment
17	Plastics	20.01.39	t	0.080	PET nackaging

The cumulative amount of waste for the Kolubara MB (Open Cast Mines "Baroševac" Branch, "Prerada" Branch and "Kolubara-Meta" I Branch) generated in 2018 is shown in Table 32, in line with the Republic of Serbia waste management legislation.



KOLUE								Gonorate	d types of	f wasta in 2	019		
					"C	Open cast mi	ne – Baroše	evac"	u types o	i waste ili z			
	defining waste categories, its testing and classification "RS Official Gazette", no. 56/10		Unit	"Field D"	"Fielld B"	Tamnava West Field	Tamnava East Field	Auxiliary mechanization	Total: OCM	Total: Prerada	Total: Kolubara Metal	TOTAL: Kolubara Me	Note
	Name	Index number			Generated waste amount								
1.	Used printer cartridges other than the one indicated under 08 03 17	08 03 18	t	0,004	0,000	0,015	0,020	0,000	0,039	0,194	0,000	0,233	Used cartridges
2.	Chips from ferrous metals processing	12 01 01	t	5,000	2,000	0,000	0,000	0,000	7,000	0,000	119,180	126,180	Chips from steel and iron
3.	Chips from non-ferrous metals processing	12 01 03	t	0,300	0,000	0,000	0,000	0,000	0,300	0,000	10,500	10,800	Chips from non- ferrous metals processing
4.	Non-chlorinated mineral engine oils, gearbox oils and lubricating oils	13 02 05*	t	0,000	0,000	0,530	0,120	22,701	23,351	0,000	0,000	23,351	Motor oil, gearbox oil
5.	Oils for insulation and heat transfer containing PCB	13 03 01	t	0,000	5,780	0,000	0,000	0,000	5,780	0,000	0,000	5,780	Waste tranformator oil containing PCB
6.	Non-chlorinated mineral engine oils	13 01 10*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	5,754	5,754	Hydraulic oil
7.	Silt from oil/water separator	13 05 02*	t	0,000	2,500	0,000	0,000	24,540	27,040	0,000	0,000	27,040	Oil/water separator residue
8.	Other emulsions	13 08 02*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	24,460	24,460	Silt from washing points
9.	Wastes not otherwise specified	13 08 99*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	29,900	29,900	Waste mixed used oils
10.	Packaging containing residues of substances or	15 01 10*	t	0,000	1,450	0,000	0,000	30,460	31,910	1,580	0,000	33,490	Used metal barrels from oil and lubricants



	contaminated by hazardous substances												
11.	Absorbent and filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	0,730	2,860	0,180	0,500	2,940	7,210	0,000	4,500	11,710	Oil and air filters, oily cotton wiping cloth, working clothes
				0,000	0,000	0,000	0,000	80,140	80,140	0,000	0,000	80,140	Pneumatics
12.	Used tires	16 01 03	t	100,04	1,000	0,000	285,000	0,000	386,040	0,000	0,000	386,040	Waste conveyor belting with steel cord
13.	Used vehicles	16 01 06	t	0,000	0,000	0,000	0,000	385,480	385,480	0,000	0,000	385,480	Used vehicles and parts
14.	Brake pads containing asbestos	16 01 11*	t	0,000	0,000	0,000	0,250	0,000	0,250	0,000	0,000	0,250	Waste from asbestos brake linings and packagings
15.	Lead batteries	16 06 01*	t	0,225	0,000	0,110	0,000	0,000	0,335	3,360	1,700	5,395	Lead accumulators
16.	Ni-Cd batteries	16 06 02*	t	0,000	0,150	0,002	0,000	0,000	0,152	0,000	0,000	0,152	Ni-Cd batteries
17.	Copper, bronze, brass	17 04 01	t	0,502	0,000	0,000	0,000	0,000	0,502	0,000	11,300	11,802	Sliding bearings made of bronze, copper from electrical parts
18.	Aluminum	17 04 02	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	10,400	10,400	Aluminum cords
				50,000	21,000	7,000	14,320	0,000	92,320	0,000	0,000	92,320	Alloy steel (plate segments, crusher hammers, excavator teeth)
				0,000	2,400	0,000	15,420	0,000	17,820	0,000	0,000	17,820	Iron and steel with rubber lining
19.	Iron and steel	17 04 05	t	0,000	0,000	0,000	21,500	0,000	21,500	0,000	0,000	21,500	Iron over 6 mm
				50,000	53,669	46,734	134,000	0,000	284,403	0,000	0,000	284,403	Iron and steel sheets up to 3 mm (switching cabinets, vulcanization containers)
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	232,540	232,540	Used steel rolls



				0,000	247,220	9,662	0,000	98,340	486,522	17,500	288,240	792,262	Iron and steel over 3 mm (sheet, rolls, shafts, constructions, steel cords)
20.	Scrap metal contaminated with hazardous substances	17 04 09*	t	19,800	0,000	0,000	0,000	0,000	19,800	0,000	0,000	19,800	Oily idler bearings
01	Cables other than those	17 04 11	+	61,000	0,360	13,660	1,120	0,000	76,140	0,000	0,000	76,140	High voltage copper cables with insulation
21.	indicated in 17 04 10	17 04 11	L	29,000	0,000	0,000	0,000	0,000	29,000	0,000	0,000	29,000	Low voltage copper cables with insulation
22.	Insulating materials containing asbestos	17 06 01*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Construction insulation boards containing asbestos
23.	Insulation materials other than those indicated under 17 06 01 and 17 06 03	17 06 04	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,780	0,780	Insulation materials – glass wool
24.	Plastics and rubber	19 12 04	t	0,000	0,000	14,200	0,000	0,000	14,200	54,920	4,880	74,000	Wipers, rubber idler rings
25.	Other waste from mechanical waste treatment that contains hazardous substances	19 12 11*	t	4,500	0,000	0,000	0,000	0,000	4,500	0,000	0,000	4,500	Greasy rubber-plastic seals and hydraulic hoses
26	Paper and cardboard	20 01 01	t	0,000	0,000	1,240	0,000	0,000	1,240	21,620	5,300	28,160	Waste paper and cardboard
27.	Fluorescent tubes and other mercury-containing waste	20 01 21*	t	0,000	0,000	0,0045	0,018	0,000	0,0225	0,000	0,000	0,0225	Fluorescent tubes
28.	Paints, inks, adhesives and resins containing hazardous substances	20 01 27*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Paint with an expired shelf life
29.	Discarded electrical and electronic equipment other than those indicated under 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	t	0,195	6,990	1,660	7,000	0,000	15,845	6,660	3,280	25,785	Computers, electro- hydraulic thruster brake, other
	Discarded electrical and	00.04.00		19,270	10,584	0,000	2,000	0,000	31,854	0.000	0,000	31,854	Waste electric motors
30.	electronic equipment other than those indicated under y	20 01 36	t	0,000	0,000	0,164	48,000	0,000	48,164	0.000	16,880	65,044	El. tools and equipment



	20 01 21, 20 01 23 and 20 01 35												
31.	Plastics	20 01 39 15 01 02	t	0,000	0,000	0,012	0,000	0,000	0,012	1,300	0,080	1,392	PET packaging

Table 33 shows the implementation of the takeover amount of waste that "Kolubara" MB Branch had in the period 01 January – 31 December 2018.

"KOLUBA	"KOLUBARA" MB BRANCH									
Takeover	amount of waste in 2018									
Number	Waste name	Index number of waste Takeover amount (t)		Note						
1.	Used printing cartridges other than those indicated in 08 03 17*	08 03 18	0,300	Used cartridges						
2.	Scraping and processing of ferro-metal	12 01 01	219,180	Iron and steel scrapings without additions						
3.	Scraping and processing of non-ferrous metals	12 01 03	10,300	Bronze spools						
4.	Non-chlorinated mineral hydraulic oils	13 01 10* 13 01 13*	6,039	Waste hydraulic oils						
5.	Non-chlorinated mineral engine oils, gearbox oils and lubricating oils	13 02 05*	48,058	Motor oil, gearbox oil						
6.	Packaging containing residues of substances or contaminated by hazardous substances	15 01 10*	32,040	Used metal barrels from oil and lubricants						
7.	Llood tiroc	16.01.03	63,760	Pneumatics						
8.	Used lifes	10 01 03	457,880	Waste conveyor belting with steel cord						
9.	Waste vehicles that do not contain any liquid or other hazardous components	16 01 06	385,480	Passenger and large goods used vehicles						
10.	Lead batteries	16 06 01*	17,260	Waste lead accumulators						
11.	Connor bronzo bross	17.04.01	5,800	Waste enameled wire and copper wire						
12.	Copper, bronze, brass	17 04 01	5,500	Sliding bearings made of bronze						
13.	Aluminum	17 04 02	10,400	Aluminum cords and parts of couplings						
14.			318,500	Up to mm (sheet, other)						
15.			20,400	Mixed categories						
16.			712,860	Over 3 mm (sheet, profiles, rolls, shafts, steel cords)						
17.	Iron and steel	17 04 05	232,540	Rolls and shafts						
18.			259,640	Iron and steel of various dimensions and shapes						
19.			93,160	Iron and steel with rubber lining						
20.			84,320	Alloy steel, plate segments, crusher hammers, excavator teeth						



01	Scrap metal contaminated with hazardous substances	17 04 09*	46.740	Oik idlas kassinsa		
21.	Hazardous components other than those indicated in 16 01 07 up to 16 01 11 and 16 01 13 и 16 01 14	16 01 21*	10,740	Ony rater bearings		
22.	Cables other than those indicated in 17 04 10	17 04 11	210,240	HV, LV и telephone copper cables with insulation		
23.	Direction and rubbar	10 12 04	54,920	Steel cord ribbon		
24.	Plastics and rubber	19 12 04	16,380	Waste wipers, rubber idler rings		
25.	Paper and cardboard	20 01 01	24,440	Used paper and cardboard		
26.	Discarded electrical and electronic equipment other than those indicated under 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	24,360	Electro-hydraulic thruster brake		
27.	Discarded electrical and electronic equipment other		55,600	Waste electric motors, other		
28.	than those indicated under y 20 01 21, 20 01 23 and 20 01 35	20 01 36	16,500	Welding apparatus with copper coil		
20	Plastics	20 01 39	1 280	Weste DET packaging		
29.	Plastic packaging	15 01 02	1,300	vvasie FET packaging		
TOTAL: I	MB KOLUBARA BRANCH		3.403,977			

Table 34 shows an overview of the realization of the disposed waste of "Kolubara" MB in the period 01 January -31 December 2018.

Tabl	e 3	4
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"KOLU	IBARA" MB BRANCH			
Dispos	sed waste in 2018			
Num ber	Name of waste	Index number	Taken amount (t)	Note
1	Used waxes and greases	31 700	Wiping cloth and small pieces of metal, plastics	
1.	Waste not otherwise specified	13 08 09*	51,700	Mixed oils, and oils containing impurities
2.	Oils for insulation and heat transfer containing PCB	13 03 01*	5,780	
3.	Silt from oil/water separator	13 05 02*	26,980	
4	Other emulsions	13 08 02*	24 460	Cleaning of washing point, washing point residue
4.	Waste not otherwise specified	13 08 99*	24,400	Cleaning of washing point, washing point residue
5.	Packaging containing residues of substances or contaminated by hazardous substances	15 01 10*	16,520	Barrels from lubricants and oils
6.	Absorbent and filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	4,500	Oiled wiping cloth, filters
7.	Insulation materials other than those indicated under 17 06 01 and 17 06 03	17 06 04	0,780	Insulation materials – glass wool
TOTAL	: KOLUBARA MB BRANCH	110,720		



1.3. Working Environment Monitoring, Occupational Health and Safety

The 2018 Occupational Safety and Health Reports include the following elements:

- Working Environment Monitoring
 - working environment noise measurement

Occupational Safety

- training
- work injuries
- Health

1.3.1. Working Environment Monitoring

Working Environment Noise Measurements

Working environment noise levels measurements results are given in Table 35.

"KOLUBARA" MB BRANCH									
Working environment noise in 2018									
Organisational unit Unit Unit Registered noise level (dB(A)) Permitted noise level (dB(A))									
Open Cast Mines	There was no measuring in 2018								
Prerada	There was no measuring in 2018								
Metal	There was no measuring in 2018	There was no measuring in 2018							
HQ	At 12 points the measured noise was within the proscribed boundaries 85								
Project	At 12 points the measured noise was within the proscribed boundaries 85								

1.3.2. Occupational Safety

Analysis of high-risk jobs was carried out and it was established that such workplaces (jobs) are adequately protected in line with legislation.

Training

Occupational health and safety training is conducted when new employees are recruited, when existing employees are transferred to other positions, when new technologies and tools are introduced. Trainings are both theoretical and practical.

Theoretical (general) training is performed by the Health and Safety Division introducing normative acts in the field of occupational safety and health to employees. Practical training is conducted at the workplace and implemented by line managers. Theoretical training of newly recruited employees and the ones transferred to new positions is performed regularly.

In 2018, occupational health and safety training was performed for 7,734 persons in "Kolubara" MB (employment, transfer to other positions, contractors, students employed under temporary and provisional contracts).

Under the Law on Mining and Geological Exploration, Occupational Health and Safety Law, Law on Fire Protection, OHS Regulations, and FP Regulations, the employer is under the obligation to perform OHS and FP testing of employees.



The training of employees is conducted in accordance with "Occupational Health and Safety Training Programme". Training and testing is conducted for employees working at job positions with higher risk, as well as for employees working at job positions that are not of higher risk.

OHS and FP testing is obligatory for all "Kolubara" MB Branch employees, as well as for all employees working at the Branch (temporary and provisional contracts, and contractors performing the works for "Kolubara" MB).

Table 36 shows the number of employees who were tested to assess their knowledge.

			Table 36						
"KOLUBARA" MB BRANCH									
Testing in 2018									
Organisational unit	Invited	Tested	%						
Open Cast Mines	6.625	5.907	89,16						
Prerada	1.540	685	44,48						
Metal	2.009	1.832	91,19						
HQ	1.645	1.197	72,77						
Projekt	88	88	100,00						
"KOLUBARA" MB BRANCH	11.907	9.709	81,54						

Work Injuries

Table 37 shows the 2018 work injuries data.

"KOLUBARA" MB BRANCH									
Work injuries in 2018									
	Number of	Injuries – employees ratio							
Organisational unit	employees	Minor	Severe	Fatal	Total	%			
Open Cast Mines	6.625	90	27	1	118	1,78			
Prerada	1.540	7	9	0	16	1,04			
Metal	2.009	49	10	0	59	2,94			
HQ	1.645	4	3	0	7	0,43			
Projekt	88	0	0	0	0	0,00			
"KOLUBARA" MB BRANCH	11.907	150	49	1	200	1,68			

In 2018, one fatal injury occured in "Kolubara" MB Branch.

1.3.3. Health

Medical examinations are performed by the Occupational Health Department of the Lazarevac Medical Centre. Periodic medical examinations are performed annually. Employees working in high-risk workplaces and those operating at computer screens are referred to examination.

Table 38 presents 2018 periodic examinations data for employees working in high-risk workplaces.



"KOLUBARA" MB BRANCH											
Employees' work capability in 2018											
Ormaniaatianal		Pre	vious an examin	d periodica ations	Work capability						
unit	ьрој запослених	Referred to examination		Examined		Capable		Limited capability		Not capable	
		number	%	number	%	number	%	number	%	number	%
Open Cast Mines	6.625	6.602	99,65	6.286	95,21	4.416	70,25	1.758	27,97	112	1,78
Prerada	1.540	1.265	82,14	1.194	94,39	418	35,01	755	63,23	21	1,76
Metal	2.009	1.246	62,02	1.206	96,79	46	3,81	1.138	94,36	22	1,82
HQ	1.645	422	25,65	386	91,47	275	71,24	109	28,24	2	0,52
Projekt	ekt 88 10 11,36 9 90,		90,00	3 33,33		5	55,56	1	11,11		
TOTAL: "KOLUBARA" MB BRANCH	11.907	9.545	80,19	9.081	95,11	5.158	56,8	3.765	41,46	158	1,74

1.4. Public Complaints

In 2018, there were no public complaints regarding the environment.



2. "KOSTOLAC" TPPS & OCMS BRANCH - OPEN CAST MINES

"Kostolac" TPPs and OCMs Branch comprise four organisational units:

- "Kostolac" A TPP
- "Kostolac" B TPP
- "Drmno" Open Cast Mine (Drmno OCM)
- "Ćirikovac" Open Cast Mine (Ćirikovac OCM)

2.1. Overview and Status of Permits

In 2018 there were no overview and status of permits, licenses and other necessary approvals. New requests for permits have not been drafted.

2.2. Monitoring and Environmental Impact

2.2.1. Air Quality Measurements

Air quality measurements in the vicinity of mines and "Kostolac" A and "Kostolac" B TPPs are conducted under an integral network of measuring points.

2.2.2. Emission Measurements of Matters Affecting Water Quality

Dewatering System Waters

Water from the "Drmno" OCM dewatering system is mainly transported to the "Kostolac" B TPP cooling water reservoir, while smaller amounts are discharged into the Mlava River. Water from the Ćirikovac OCM dewatering system is accumulated in the mine vicinity. "Klenovnik" OCM water amounts are low and therefore not measured.

Drainage water quality control originating from the Drmno OCM dewatering system in 2018 was carried out by an accredited laboratory for chemical testing of Mining and Metallurgy Institute - Bor.

Table 39 shows the drainage water quality results for "Drmno" OCM in 2018.

					Table 3					
KOSTOLAC TPPs & OCMs BR	KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES									
Drainage water quality in 2018										
Drmno OCM	Draining well 3 (drainage lake inlet TEKO B)	Draining well 75 (northern section Drmno OCM)	Spillway station - Mlava Drmno OCM	Draining well 3 (drainage lake inlet TEKO B)	Draining well 75 (northern section Drmno OCM)					
Sulfates (mg/l)	6,53-600	4,0-21,30	24,79-148,50	6,53-600	4,0-21,30					
Phenols (mg/l)	0,002-0,48	0,002-0,05	0,002-0,05	0,002-0,48	0,002-0,05					
Electrical conductivity (µs/cm)	827-1.280	642-2.140	661-945	827-1280	642-2.140					
Arsenic (mg/l)	0,0021-0,008	0,0020-0,005	0,0021-0,005	0,0021-0,008	0,0020-0,005					

Sanitary Water

Potable and sanitary water used by the Drmno OCM comes from Bradarac water source. Potable water quality is controlled by the Požarevac Public Health Institute. Water amounts are not recorded.



Potable water used by the Cirikovac and Klenovnik OCMs comes from the city waterworks system. Quality is controlled by the Pozarevac Public Health Institute. Water amounts are not recorded. Sanitary wastewater is not treated; it is discharged into the internal sewage system.

Table 40 shows the potable and sanitary water data amounts, together with the drainage water amounts for the Drmno OCM in 2018.

				Table 40					
KOSTOLAC	KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES								
Water amou	ınts in 2018 (m³/y)								
	0	Dewatering	Sanitary waters used	by the OCM					
	Open cast mine	Total water amounts	Water supply	Total amount					
Klenovnik		7.830	Kostolac measurements 340	8.170					
Óirikausa	Ash landfill dewatering	124.763,74	Ćirikovac ash disposal system – Kostolac measurements 939	- 134.044,740					
CIFIKOVAC	Pit	5.122	Ćirikovac OCM Center – Kostolac measurements 3.220						
Drmno	Surface dewatering	7.370.000	Produros (astimato) 20.121	26 240 121					
	Deep dewatering	28.850.000	Diaudiau (estimate) – 20.131	30.240.131					
TOTAL: KO	STOLAC TPPs & OCMs OPEN CAST MINES	36.357.715,74	24.630	36.382.345,74					

2.2.3. Emission Measurements of Matters Affecting Soil Quality

"Kostolac" TPPs and OCMs Branch monitors the pollutants emission in soil every two years. In accordance with the Regulation establishing a program of systematic monitoring of soil guality, indicators needed to assess the soil degradation risks and remediation programs development methodology ("RS Official Gazette No. 88/2010), soil quality monitoring is performed in vegetative and non-vegetative period. According to the above mentioned, monitoring and sampling of soil in vegetative period was performed in the summer 2014, and sampling and monitoring in non-vegetative period was performed in the winter 2015. Test results from 2018 show that the average value of the total content of heavy metals in soil of tested areas is common for agricultural land. The total content of most of the heavy metals such as zinc (Zn), mercury (Hg), lead (Pb), cadmium (Cd), copper (Cu), chromium (Cr), does not exceed the maximum allowable concentration (MAC) in any sample. The total content of arsenic (As) in one sample is above MAC, while nickel (Ni) is in 40% of samples above the MAC. The values are far below the remediation when remedial measures are necessary, except in one sample where the concentration of As is in the level of remediation values. Analyzing all the results of soil investigation it can be concluded that the investigated area is not polluted with most heavy metals. Nickel (Ni) occurs as a common pollutant, whose high content is largely conditioned by the geochemical composition of the native substrate. Likewise, the differences in mean metal values in zones do not clearly identify the impact of pollutants position to the pollutant content, especially due to the large variation in values within the same zone.

Soil quality monitoring in the proximity of "Kostolac" TPPs and OCMs Branch was performed in vegetative and non-vegetative period in 2018.

Overview of Reclaimed Areas

Areas expropriated in 2018, along with the ones whose use has been changed, are given in Table 41.Total expropriated areas until 2018 were 4,265.13 ha. In 2018, 33.05 ha of new areas (registered in the cadaster) were purchased, and there was no land use change. Land area containing structures remained the same as in 2017. As for the areas under dumpsites, area of inside dumps remained at 769,20 ha. When it comes to the reclaimed area under the forests, they increased by 27.20 ha, i.e. on Drmno OCM by 7.2 ha, and by 20.00 ha on Cirikovac OCM. Recultivated areas under arable land in 2018 amounted to 38.40 ha, while there were no reclaimed areas under the orchards.



KOSTOLAC TR	OSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES																		
Reclaimed are	as overview ir	า 2018																	
Open cost mine	Total reclaimed	Total are regist (ha	land ea tered a)	Total area w use has change	land /hose s been ed (ha)	Land conta structu	Land area containing ructures (ha)		DUMP SITE A		DUMP SITE AREAS (ha)			Reclaimed areas (ha)					
	area (ha)	Until	In	Until	In	Until	Until In 2017 2018	Insid	le	Outsi	ide	Fores	sts	Arable	land	Orcha	ards	Nuse	əry
		2017	2018	2017	2018	2017		Until 2017	In 2018	Until 2017	In 2018	Until 2017	In 2018	Until 2017	In 2018	Until 2017	In 2018	Until 2017	In 2018
Klenovnik	472,00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ćirikovac	1.047,00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drmno	2.576,58	181,00	12,60	322,00	-	1,41	-	769,20	-	-	-	8,93	7,2	274,40	38,4	2,00	-	7,50	-
Kličevac	169,55	-	20,45	-	-	-	-	-	-	-	-	65,70	20,0	-	-	-	-	-	-
TOTAL	4.265,13	214	,05	322	,00	1,	41	769,2	20	-		101,8	33	312	,80	2,0	0	7,5	0



2.2.4. Living Environment Noise Measurements

Noise measurements in 2018 were done at two measuring locations in accordance with the Law on protection against noise in the environement (Official Gazette of RS, No.36/2009 and 88/2010), the Rulebook on noise measurement methods, contents and form of the report for noise measurements (Official Gazette of RS, No. 72/2010) and Regulation on noise indicators, limit values, methods for noise indicators evaluation, nuisance and harmful effects of noise in the environment (Official Gazette of RS, No. 75/2010).

Measurements were done at the following locations:

- 1. OCM Drmno Vidikovac
- 2. OCM Drmno a road towards Kličevac

Table 42 shows data on measured noise levels in the environment in 2018 for Kostolac TPP, Organizational Unit "Open-cast mine", separately for summer and winter.

KOSTOLAC TPPs AN	D OCMs BRANCH	
Noise level in 2018 (di		
		ement - winter
Measuring	Theasure	OCM Drmno
locations	Vidikovac	A road towards Kličevac
For day	55,5	55,4
For day	54,7	55,2
For evening	59,5	54,1
For night	55,2	54,6
For night	55,1	53,8
	ll measure	ment - summer
Measuring		OCM Drmno
locations	Vidikovac	Vidikovac
For day	55,0	51,0
For day	54,2	51,2
For evening	55,6	51,6
For night	54,7	50,8
For night	54,6	50,6

2.2.5. Waste

Table 43 indicates waste production in 2018 for Kostolac TPP&OCM Branch (the branch sections OCM Drmno and OCM Ćirikovac).

Table 44 indicates quantities of the submitted waste in 2018 from Kostolac TPP&OCM Branch (the branch sections OCM Drmno and OCM Ćirikovac).



Kostol	ac TPPs and OCMs Branch						
Waste	generated in 2018						-
No	Official nomenclature of the Rules defining waste categories, its testing and classification OG RS № 56/10	Index number		Note			
	Name		Drmno OCM	Cirikovac OCM	HQ warehouse	Total	
1	Waste paints and varnish containing organic solvents or other dangerous substances	08 01 11*	0,009	0,000	0,000	0,009	-
2	Waste printer cartridges other than the ones indicated under 08 03 17	08 03 18 08 03 99	0,346	0,279	0,000	0,625	-
3	Waste bonds and seals containing organic components or other hazardous substances	08 04 09*	0,001	0,000	0,000	0,001	-
1	lised wayes and graases	12 01 12*	4,190	0,000	0,000	4,190	Used waxes and greases
4	Used wakes and greases	12 01 12	1,872	0,000	0,000	1,872	Other fuels (including mixtures)
5	Mineral non-chlorinated hydraulic oil	13 01 10*	29,144	0,000	0,000	29,144	-
6	Synthetic non-hlorinated hydraulic oil	13 01 11*	0,300	0,000	0,000	0,300	
7	Mineral non-chlorinated motor oils, gearbox oils and lubrication oils	13 02 05*	17,375	0,000	0,000	17,375	-
8	Oils for insulation and heat transfer – transformer oil	13 03 10*	0,178	0,000	0,000	0,178	-
9	Other motor oils, gearbox oils and lubrication oils - additive D2	13 02 08*	0,170	0,000	0,000	0,170	-
10	Packaging containing residues of hazardous substances or contaminated by hazardous substances	15 01 10*	6,480	0,000	0,000	6,480	Iron packaging oil tanks
11	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing, contaminated with hazardous substances	15 02 02*	5,280	0,000	0,000	5,280	Cotton



12	Absorbents, filter materials, wiping cloths and protective	15 02 03	9,716	0,000	0,000	9,716	Air filter
	clotning other than those indicated under 15 02 02		0,575	0,000	0,000	0,575	Protective equipment – HTZ boots
13	Used tires	16 01 03	41,130	0,000	0,000	41,130	Car tires
14	Waste vehicles	16 01 06	314,665	0,000	0,000	314,665	-
15	Waste oil filters	16 01 07*	2,400	0,000	0,000	2,400	-
16	Brake pads	16 01 11*	0,070	0,000	0,000	0,70	-
17	Antifreeze solution	16 01 14*	0,006	0,000	0,000	0,006	-
18	Discarded equipment different from the one indicated under 16 02 09 to 16 02 12	16 02 13*	12,100	0,000	0,000	12,100	-
19	Other emulsions	16 03 05*	0,002	0,000	0,000	0,002	-
20	Lead batteries	16 06 01*	12,926	0,000	0,000	12,926	Accumulator battery
21	Nickel-cadmium batteries	16 06 02*	1,830	0,000	0,000	1,830	-
22	Other batteries and accummulators (alkaline batteries)	16 06 05	0,012	0,000	0,000	0,012	-
23	Waste glass	17 02 02	1,002	0,000	0,000	1,002	-
24	Plastics	17 02 03	4,135	0,000	0,000	4,135	-
25	Copper bronze brass	17 04 01	1,275	0,250	0,000	1,525	-
26	Aluminium	17 04 02	2,292	0,00	0,000	2,292	-
27	Iron and steel	17 04 05	165,770	561,961	0,000	727,731	Different thickness
20	Cables other than these indicated under 17.04.10	17.04.11	61,961	29,500	0,000	91,461	Copper cables
20		17 04 11	1,100	0,000	0,000	1,100	Aluminia cables
29	Earth and stone containing hazardous substances	17 05 03*	4,225	1,500	0,000	5,725	Earth and sand soaked with oil



	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing, contaminated with hazardous substances	15 02 02*					
20	Plastics and rubber	19 12 04	437,850	0,000	0,000	437,850	Rubber bands
50			9,210	0,000	0,000	9,210	Rubber material
31	Sludge from remediation of soil containing dangerous substances	19 13 03*	8,480	0,000	0,000	8,480	-
	Other emulsions	13 08 02*					
31	Fluorescent tubes and other waste containing mercury	20 01 21*	0,077	0,000	0,000	0,077	-
32	Discarded electrical and electronic equipment other than the one indicated under 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	6,110	0,000	0,650	6,760	-

Kostolac TPPs and OCMs Branch Waste delivereed in 2018												
No.	Official nomenclature of the Rules defining waste categories, its testing and classification, OG RS № 56/10	Index number	Index number Organizational unit									
	Name		OCM Drmno	OCM Cirikovac	HQ Warehouse	Total						
1	Waste paints and varnish containing organic solvents or other dangerous substances	08 01 11*	0,009	0,000	0,000	0,009	Contract on waste treatment Service					
2	Waste bonds and seals containing organic components or other dangerous substances	08 04 09*	0,001	0,000	0,000	0,001	Contract on waste treatment Service					
3	Mineral non-chlorinated hydraulic oil	13 01 10*	21,010	0,000	0,000	21,010	Sale					
4	Mineral non-chlorinated motor oils, gearbox oils and lubrication oils	13 02 05*	16,625	0,000	0,000	16,625	Sale					
5	Oils for insulation and heat transfer	13 03 10*	0,178	0,000	0,000	0,178	Sale					
6	Copper, bronze, brass	17 04 01	1,275	0,250	0,000	1,525	Sale					
7	Aluminium	17 04 02	2,000	0,000	0,000	2,000	Sale					



8	Iron and steel	17 04 05	159,770	484,850	0,000	644,620	Sale
9	Cables other than mentioned in 17 04 10	17 04 11	28,400	12,850	0,000	41,250	Sale copper cables
10			1,100	0,000	0,000	1,100	Sale aluminium cables
	Soil and stone containing dangerous substances	17 05 03*					Contract on waste
11	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing, contaminated with hazardous substances	15 02 02*	4,075	0,000	0,000	4,075	treatment Service
12	Plastic and rubber	19 12 04	42,950	0,000	0,000	42,950	Sale
13	Sludge from remediation of soil containing dangerous substances	19 13 03*	6 240 0 000		0.000	6,240	Contract on EEE takeover and recycling
10	Other emulsions	13 08 02*	0,240	0,000	0,000	0,240	without compensation Service
14	Fluorescent tubes and other waste containing mercury	20 01 21*	0,076	0,000	0,000	0,076	Contract on EEE takeover and recycling without compensation
15	Discarded electrical and electronic equipment other than the one indicated under 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	5,950	0,000	0,650	6,600	Contract on EEE takeover and recycling without compensation



2.3. Working Environment Monitoring, Occupational Health and Safety

The 2018 Occupational Health and Safety Reports include the following elements:

Working environment monitoring

-working environment noise measurements

Safety

- training
- work injuries
- Health

2.3.1. Working Environment Monitoring

Working environment noise measurements

2018 at OCM Drmno and OCM Cirikovac there were working environment monitoring and periodical inspections of working conditions performed at 175 positions at OCM Drmno and 19 positions at OCM Cirikovac. Measurements were conducted for the following parameters of working environment:

- micro climate in summer period
- light
- physical harmfulness
- chemical harmfulness

Noise measurement in working environment was also measured within physical harmfulness. At all working postions where measurments have been taken, 194 positions at OCM Drmno and OCM Cirikovac in total, the measured noise value does not exceed the limit value.

2.3.2. Occupational Safety

Training

Employees are trained according to the Health and Safety Training Programme. Testing of occupational safety competence and knowledge is carried out at least once a year in accordance with Kostolac Branch Risk Assessment Act and in accordance with Mining and Geological Investigation and Occupational Health and Safety Act. According to Occupational Health and Safety Act, training within Kostolac Mining Basin is performed whenever new workers are recruited, deployed to new workplaces, during technological process changes and the introduction of new equipment and work tools. Updating and checking of knowledge is performed for employees working at increased risk working positions.

Table 45 shows the number of workers foreseen for training and the number of trained workers in 2018.

					l able 45						
KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES											
Training in 2018											
Organizational units	Numer of employees	For tr	aining	Trained							
Organisational units	Numer of employees	Number	%	Number	%						
Drmno OCM	1.550	1.160	74,84	1.115	96,12						
Cirikovac OCM	73	47	64,38	47	100,00						
HQ	570	58	10,18	58	100,00						
TOTAL: KOSTOLAC TPPs & OCMs	2 193	1 265	57 68	1 220	96 44						
BRANCH – OPEN CAST MINES	2:155	1.200	57,00	1.220	50,44						

Note: Some workers hase passed more than one training, e.g. because they were transferred to other workplaces, etc.



Work injuries

Table 46 provides the work injuries data for 2018.

KOSTOLAC TPPS & OCMs BRAN	ICH – OPEN CAST M	INES									
Work injuries in 2018											
	Numer of		Injuries – employee number ratio								
Organisational units	employees	Easy	Heavy	Fatalities	Total	%					
Drmno OCM	1.550	10	5	0	15	0,97					
Cirikovac OCM	73	0	0	0	0	0,00					
HQ	570	1	1	0	2	0,35					
TOTAL: KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES	2.193	11	6	0	17	0,78					

2.3.3. Health

All employees from the Kostolac Open-cast mines are subject to pre-employment and/or periodical medical examinations. Employees to be employed or during transfer to some other work post with high risk are referred to pre-employment medical examinations. Employees working at high-risk posts are referred to periodic medical examinations done once a year. In 2018, periodic medical examinations were done in the Occupational Medicine Clinic within Požarevac Health Center.

Table 47 provides data on periodic medical examinations which checked work capability of employees for 2018.

KOSTOLAC TPPS & OCMs BRANCH - OPEN CAST MINES												
Work capability in 2018												
		Per	iodical ex	aminati	ons		V	Vork ca	pability			
Organisational units	Numer of employees	Referred to examination		Examined		Capable		Limited capability		Not capable		
		No.	%	No.	%	No.	%	No.	%	No.	%	
Drmno OCM	1.550	1.067	68,84	1.010	94,66	898	88,91	100	9,90	9	0,89	
Cirikovac OCM	73	47	64,38	47	100,00	38	80,85	8	17,02	1	2,13	
HQ	570	74	12,98	74	100,00	72	97,30	0	0,00	2	2,70	
TOTAL: KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES	2.193	1.188	54,17	1.131	95,20	1.008	89,12	108	9,55	12	1,06	

2.4. Public Complaints

There were no public complaints in 2018.



3. NIKOLA TESLA TPPS BRANCH

Nikola Tesla TPPs (TENT) comprise of five organisational units:

- Nikola Tesla A TPP (TENT A);
- Nikola Tesla B TPP (TENT B);
- Kolubara A TPP (Kolubara A TPP);
- Morava TPP (Morava TPP);
- Railway transport (RT).

3.1. Overwiev and Status of Permits

Table 48 provides an overview of obtained permits and applications for new permits or extension of existing ones in 2017.

			Table 48							
NIKOLA TESLA	TPPSs BRANCH									
Overwiev and status of permits in 2018										
Organisational unit	Obtained permits and approvals (number and date)	Applications for new or extension of existing permits	Note							
TENT A	-	-	-							
TENT B	-	-	-							
KOLUBARA A TPP	 Decision of the Ministry of Construction, Traffic and Infrastruture no. 351-03-01355/2013-04 dated 03.04.2018 Building permit allowing execution of works on 	-	-							
	warehouse construction for temporary storage of industrial waste in Kolubara TPP									
	- Decision of the Ministry of Agriculture, Forestry and Water management (Republic Directorate for Water) no. 325-04-00226/2018-07 dated 07.09.2018									
MORAVA TPP	- Decision on issuing water permit (issue water permit for collection, treatment and usage of ground and underwater and for collection, cleaning and discharging of waste water into Velika Morava) Validity term for water permit is up to 07.09.2019	-								
	- Decision of the Ministry of Construction, Traffic and Infrastructure no. 351-04-01375/2018-14 dated 21.08.2018. Exploitation permit is issued on the base of: Decision on building permit of the Ministry of Construction, Traffic and Infrastructure no. 351- 02-00001/2017-07 dated 02.03.2017	-	Approved usage of executed works on upgrading and reconstruction of ESP in Morava Svilajnac TPP.							

3.2. Monitoring and Environmental Impact

3.2.1. Air Quality Measurements

Air quality monitoring in the vicinity of the TENT Branch organizational units is carried out as part of the monitoring financed and organized by individual organizational units. It should be noted that the air quality monitoring is within the competence of the legislator; therefore air quality monitoring is carried out as part of the



national automatic air quality monitoring network, comprising measuring points located around the TENT Branch.

During 2018 air quality measurements in the TENT A, TENT B and Kolubara TPP area were performed. Around the Kolubara TPP, measurements were conducted by the company AD Zasita na radu i zastita zivotne sredine – Belgrade, while air quality monitoring in the areas of TENT A and TENT B was not executed by an accredited laboratory from 01.04 to 31.12.2018, but internally by the TENT Environmental Division laboratory.

TENT A and TENT B

In 2018, around TENT A and TENT B, measurements of the total particulate matter content (TPM), sulphur dioxide and soot concentrations were performed by accredited laboratory. Total particulate matter (TPM) was measured on 18 measuring points, and SO₂ and soot were measured on 2 measuring points and suspended matter smaller than 10µm (PM₁₀) on one measuring point. Table 49 shows data on air quality in vicinity of TENT A and TENT B based on measurements of Public Health Department referring to period April-December 2018.

During 2018 there were no stormy winds potentially causing ash dispersion from ash landfills. There were no complaints by citizens to air pollution. All existing active cassettes protection systems on TENT A and TENT B ash landfills were in operation, water lens was covering an optimal area in accordance with the technical requirements. In addition, wetting of dry surfaces was also executed.

Kolubara A TPP

Air quality measurements in the Kolubara A TPP surroundings have been performed for over twenty years. Monthly and annual air quality monitoring reports for the Kolubara A TPP surroundings are sent to the local self-government authorities and governmental agencies, upon their request. During 2018 TPM levels were measured on 8 measuring points, while SO₂, soot and total suspended particles PM₁₀ were measured on 1 measuring point. Measurements were performed in period 01.01.2018 to 30.09.2018.

Morava TPP

There was no air quality monitoring in 2018.

Table 49 shows the 2018 air quality data in terms of the TENT organisational units' legal compliance.

Air quality was evaluated based on the measurement results compared with the limit and tolerable values for SO₂, TPM, total suspended matter PM₁₀ and soot specified by the Regulation stipulating air quality monitoring conditions and requirements (OG RS Nº 11/2010, 75/2010, 63/2013). The above regulation is aligned with the European Union legislation.

				Tab	le 49	
NIKOLA TESLA T	[PPs B	RANCH				
Air quality in 201	8					
Legal compliance	e (data	or days exceeding legal limits)				
		Total particulate matters levels - TPM (mg/m²/day)	Concentra	ation of SO ₂ (μg/m³)	
Air quality indicators		Maximum permissible value (MPV)	LV	тv	TL	
Averaging period						
One hour			350	350	0	
*One day			1	25	-	
**One month	1	450		•		
***Calender year		200	Ę	50	-	
TENT A and * TENT B		-	No exceedance from totally data. Measurements perfo on two points.			



		Data exceeding MPV, out of total 162 data (3.09%), of whi	18 measuring poin ch:	its, makes 5 of	
		-2 measuring points, TENT A 11,11% out of total data;	landfill area, 2 ex	ceedance -	
		-3 measuring points, TENT B	landfill area, no e	xceedance;	
	**	-4 measuring points TENT A 2,78% out of total data ;	surroundings, 1 ex	kceedance -	-
		-5 measuring points TENT B 4,44% out of total data;	surroundings, 2 ex	kceedance –	
		-4 measuring points in Obren exceedance;	ovac and its surro	undings, no	
		-1 measuring point in Vladimi	rci, no exceedanc	e	
	***	-			
	*		-		No exceedance
	**	No exceedance			-
Kolubara A TPP	***	On measuring point "TEK a Building, mean annual value 225.45 mg/m2/day. There wa	-		
	**				
Morava TPP	***	No measurements			No measurements
		No measurements			
Air quality indic	ators	Total particulate m	Soot (µg/m³)		
Averaging per	iod	LV	TV TL		Maximum permissible concentration (MPC)
*One day		50	50	0	50
***Calendar ye	ear	40	40	0	50
TENT A and TENT B	*	Number of data exceeding LV is total 55 (in December 16 and in October– 12, which makes 20% out of total 275. Measurement is performed at one measuring point daily.	-	-	No exceedance of totally 550 data. Measurement were taken at two measuring points.
	**	-	-	-	-
	***	-	-	-	No exceedance
Kolubara A TPP	*	Number of data exceeding LV is total 57 (mostly during winter months), which amounts 20.88% (of total 273 data). Measurement is performed at one measuring point daily.	-	-	Number of data exceeding MPV- 6 as follows: in January- 1 day, in February – 3 days and in March - 2 days amounting to 2.21% of totally 271 data. Measurement is performed at one measuring point daily.
	***	Below LV - 38.34 µg/m3	-	-	-

LV – Limit value, TV – Tolerance value, TL – Tolerance limit

Following the long-term air quality monitoring in this area, the following may be concluded:

- SO₂ concentrations are below the prescribed average daily and annual mean limit values and tolerance values.



- Air pollution by ash particles PM₁₀ is of local significance, mainly the result of power plant operation and other sources of pollution (traffic, household furnces and the like). Pollution is higher during winter months.

3.2.2. Emission Measurements of Matters Affecting Air Quality

Total sulphur content in lignite supplied to the Nikola Tesla TPPs Branches is ca. 0.5%. Flue gases containing sulphur dioxide, nitrogen oxides, carbon dioxide and dust, after treatment and dust separation by electrostatic precipitators, are emitted into the air through stacks of the following heights:

- TENT A 150m (units A1, A2 and A3) and 220m (units A4, A5 and A6)
- TENT B 280m (units B1 and B2)
- Kolubara A TPP -105m (boiler K1), 105m (boilers K2 i K3) and 130m (unit A5)
- Morava TPP 105m

In line with the legal requirements individual pollutants air emission measurements are carried out regularly, while continuous measurements are carried out on the majority of the TENT Branch units.

Periodic emission measurements of matters affecting air quality

During 2018, periodic emission measurements of matters affecting air quality were done once a year at TENT A all units – except of unit A5, on both units of TENT B, on KOLUBARA A TPP chimney 2 (boiler K3, K4, K5) and on chimney 3 (unit A5,K6), and twice a year on chimney 1 (boiler K1) KOLUBARA TPP. In MORAVA TPP there were two individual measurements of air emission which affects the quality of air, the first measurement was taken on ESP, and the second on chimney because in the meantime the measuring point on chimney complied with the standard. Monitoring Programme included the flue gas conditions measurements (temperature, pressure, and humidity), flow rate, oxygen content, mass concentrations and emission factors for sulphur dioxide (SO2), nitrogen oxides (NOx - NO2), carbon monoxide (CO), chlorine (HCI) and fluorine (HF) compounds and dust. Furthermore, technical and elementary coal analysis was performed. In addition, macro-elements, combustible substances, particle size distribution and electrical resistance of fly ash measurements were also executed.

Emission measurements of matters affecting air quality were performed by accredited laboratories of the Nuclear Science Institute Vinča and Mining Institute - Belgrade, in line with the Pollutants Air Emissions Individual Measurements Plan.

NIKOLA TESLA TPP	NIKOLA TESLA TPPs BRANCH										
Periodic emission measurements of matters affecting air quility in 2018											
Mass concentrations of matters affecting air quility (mg/Nm3)											
Organizational unit			TEN	Α		TENT B					
Unit	A1	A2	A3	A4	A5	A6	B1	B2			
Power MWth	660	660	932	943	934	934	1.809	1.826			
SO ₂	3.779	1.565	1.835	1.440	-	1.341	2.169	2.093			
NO _x (NO ₂)	460	335	375	212	-	439	393	295			
CO 62 75 64 94 - 107 23 101								101			
Particulate matter	218	292	52	39	-	29	40	45			

Table 50 provides the results of emission measurements of matters affecting air quality for the TENT Brach, done in 2018.



Organizational unit		KOLUBARA A TPP						
Unit, boiler	Unit, boiler K1 K3, K4 and K5		A5, K6	Morava TPP				
Power MWth	125,6	376,8	333,5	420,0				
SO ₂	2.230	1 959		4.437				
•••	2.398	11000						
	411	303		100				
	319	525						
со	31	36 No measure		30				
	44							
Particulate matter	729	794		28				
	860							
Organizational unit		KOLUBARA A TPP						
Unit, boiler	A1	A2, A3	A5	Morava TPP				
Power MWth	125,6	376,8	333,5	420,0				
50,	1.749	1.817	1 107	5.303				
302	1.837	-	1.107					
	374	396	416	800				
$NO_{X}(NO_{2})$	393	-	410	000				
00	45	45	65	16				
	46	-	00	10				
Particulate matter	951	1.187	70	3/				
	1.121 -		10	54				

Note: Pursuant to the Directive on the limitation of emissions of certain pollutants into the air from large combustion plants (Off. Gazette of RS, no. 6/16), Article 5 stipulates that old large combustion plants do not have to comply with individual ELVs if from the date of entry into force of the mentioned Directive they are included in the preliminary application for the National Emission Reduction Plan from station big combustion plants. TENT A and TENT B are included by National Emission Reduction Plan.

Also, in Art.6 of this Directive, authorized body can exclude huge combustion plants from implementation of limit values of pollutant air emissions and from obligation determined by National Emission Reduction Plan of old combustion plants on condition that these were in exemption mechanism due to its limited life. TEM and TEK are included in this mechanism due to the limited lif of the plant.

Pursuant to the Directive on the limitation of emissions of certain pollutants into the air from large combustion plants (Off. Gazette of RS, no. 6/16), Article 37 stipulates that for the facilities included in Art. 6 and 8 of this Directive, the operator is obliged to ensure the smooth operation of the existing emission reduction device, or to ensure that the emissions from the combustion plant are less or equal to the ELV from the contract on the latest reconstruction of the existing emission reduction device, that is, from the contract for the construction of this device in the event that its reconstruction has not been implemented, within the period from the date of entry into force of this Directive until the expiration of the deadlines referred to in Art. 6 and 8 of this Directive.

On units A3, A4 and A5 at TENT A, burners were reconstructed to reduce nitrogen oxide emissions and increase unit capacity (unit A4).

During 2018 the reconstruction of the measuring point on chimney was performed pursuant to the standard requirments SRPS EN 15259. This is why the emission measurement on ESP Plant was done in the first half of year and the second one after harmonization of the measuring point.



• Continuous emissions measurements of matters affecting air quality

Between 2004 and late 2014 equipment for continuous emissions measurements of matters affecting air quility was installed on TENT Branch units. In addition to the basic equipment for measuring mass concentration of dust and gases, some additonal measuring equipment was installed for oxygen (O_2) , carbon dioxide (CO_2) and humidity as well as temperature (t), pressure (p) and flue gases flow rate. Data acquisition and processing equipment was also installed.

As part of the project funded through an IPA donation, including design, supply, delivery, installation, commissioning, calibration - QAL2 certification of the continuous measuring system for sulphur dioxide (SO₂), nitrogen oxides (NO_x - NO₂), carbon monoxide (CO), carbon dioxide (CO₂), dust on:

- all units (A1-A6) in Nikola Tesla A TPP (completion of existing equipment),
- units B1 and B2 Nikola Tesla B TPP and
- unit A5 Kolubara A TPP

CEMS Reports were established in line with the Large Combustion Plants Directive 2001/80/EC and Serbian legislation. The entire system was reconciled with EN 14181 (QAL1, QAL2 and QAL3) standard and national legislation.

Pursuant to the Air Protection Act (Official Gazette of RS No. 36/09 and 10/13) and the Rulebook on conditions for giving approval to operators for air quality measurements and/or emissions from stationary pollution sources (Official Gazette of RS No. 16/12), TENT A, TENT B and TEK A5 obtained approvals for continuous emission measurements from stationary pollution sources.

Table 51 shows the overview of results for continuous emissions measurement of matters affecting air quality (mean annual mass concentration) for TENT Branch in 2018.

		1						10010 01	
Continuous emission measurements of matters affecting air quality in 2018									
Mass concentrations of metters effecting air quality (mg/Nm2)									
mass concentrations of matters affecting air quality (mg/nm3)									
Organizational	TENT A TENT B								
unit									
Unit	A1	A2	A3	A4	A5	A6	B1	B2	
Power MWth	660	660	932	943	934	934	1.809	1.826	
SO ₂	2.471	2.336	2.394	2.488	2.285	2.352	2.663	2.401	
NO _x (NO ₂)	342	309	328	305	255	413	342	349	
CO	105	106	71	85	76	123	33	37	
Particulate	167	045	E1	47	10	20	41	FF	
matter	107	240	51	47	43	32	41	55	
Organizational			V		D*			Marrowa	
unit			n	olubara A IP	Ρ"			worava	
Unit		К1		K3, K4	and K5	A5	, K6		
Power MWth		125,6		376,8		333,5		420,0	
SO ₂		-		1.790		1.323		-	
NO _x (NO ₂)		-		282		475		-	
CO		-		268		8	31	-	
Particulate matter	-			1.179		126		-	

*In November 2018, there was disturbance in the continous emission measurement system operation in TPP Kolubara, thus table 51 shows mean monthly values for period from January to October 2018.

Table 52 shows data on equipment in TPP units for continuous emission measurement of matters affecting air quality in TENT branch organizational sections.



NIKOLA IESLA IPPS BRANCH											
Equipri		Fritted matter	Isuren	Parameters							
			Gases		Content						
Organiz ui	zational nit	Particulate matter (PM)	SO ₂ , NO _x (NO ₂), CO	HCI and HF	Humidity	CO ₂	O 2	р	t	Flow	
	A1		One measuring device installed								
<	A2	Measuring devices	per unit. Sampling is carried out on flue ducts,		Humidity adopted Installation T of 6 more m measuring d	Total: 6 measuring devices	Measuring devices installed on each unit, on flue ducts after the left and right ESP, ID fan.				
	A3	unit on flue ducts									
TENT	A4	right ESP, behind ID fan.	continuously, behind the left and	-						ght ESP,	
	A5	Total: 12 measuring	gas is mixed and		devices planned.		Total: 12 sets of measured devices		easuring		
	A6	devices.	devices for gases Total: 6 sets of measuring devices								
	B1	Measuring device in duct, at the elevation stack lining.	nstalled on the flue n 55.1m in the inner	Measuring device installed on the flue duct, at the level 55.1m in the inner stack lining.							
B		Platform located at the elevation 54m, inner stack lining Total: 1 set of measuring devices									
LN B2		Measuring device in duct, at the elevation stack lining	Measuring device installed on the flue duct, at the level 55.1m in the inner stack lining.								
		Platform located at th Total: 1 set of measu	ne elevation 54m, inne uring devices	er stack	lining						
	K1	-	-	-			-				
	K3	Measuring devices (except HC and HF dev	/ices) ir	nstalled at the el	evation of 46.	25m, ou	ter sta	ick lini	ng.	
	K4	Platform is located at	t the elevation of 45m,	outer	stack lining.						
	K5	Control measuremer	its openings at the ele	vation	of 46.75m. Stac	k height - 105	m				
KOLUBARA A TPP	A5-K6	Installed: • behind ESP after ID fan: Left ESP	Installed on the stack	-	Installed: Installed on the stack Installed on the stack Installed on the stack Installed: Instal			D	Installed on the stack		
		Right ESP Measuring devices installed at the elevation of 51m, outer stack lining. Platform i located at the elevation of 50m, outer stack lining. Measuring plane with measurin opening for control measurements located at the elevation of 51.5m. Stack height 130m.							Platform is measuring k height -		
MORAVA TPPAt the measuring section of the stack thee measuring platforms were located (50,3m 50,7m и 56,7m).In the measuring platform MP1 at the elevation 50,3m there are openings for AMS. Measuring devices for pressure, gases and dust on the outer side of the stack lining. Measuring platform MP2 at 50,7m have openings for CPM. MP3 is located at 56,7m. Inlet part of the platform is at 46,7m and the outer is at 48,3m. Platform is at the elevation 49m. Stack height is 105m.						n). ces for					



Data acquisition and processing equipment (software) is an integral part of the above automatic measuring system (AMS).

Decisions issued by the competent ministries: 02.12.2013 - Ministry of Energy, Development and Environment, 22.12.2014 and 16.01.2017 - Ministry of Agriculture and Environment approved independent continuous stationary pollutant sources measurements by TENT, for the following pollutants: SO2, NOx (NO2), CO and total particulate matter – TENT A, units A1 to A6, TENT B units B1 and B2 and Kolubara A TPP unit A5.

The above devices for boilers K3,K4, K5 - Kolubara A TPP were installed on stack № 2 (105m high), at the elevation 46.25m. The first calibration of devices - QAL2 tests of basic and additional equipment were conducted in November 2014 by an accredited laboratory AEROLAB d.o.o. Beograd. TENT has obtained a decision of the Ministry of Agriculture and Environment of 30.11.2015, and a decision of the Ministry of the Environmental Protection of 11.10.2017, approving continuous measurement of pollutant emissions from stationary pollution sources for boilers K3,K4, K5 - Kolubara TPP.

Equipment for the continuous emissions measurements of air pollutants at the Morava TPP was installed on the stack in 2018. The equipment is in operation and calibrated under QAL-2 but still not approved by the Ministry for contionuous emission measurement from stationary pollutant sources.

• Annual emissions of matters affecting air quality

Table 53 provides an overview of air emissions: dust, SO₂, NO₂ and CO₂ for TENT Branch in 2018.

Annual dust, SO₂ and NO₂ emissions were calculated on the basis of mean annual flow rates, mean annual concentration of pollutants obtained from continuous measurements and emission measurements and operating periods (h) of each unit (stack), according to CEMS (there might be correctios regarding emission calculation method.

There is no equipment for continuous emission measurement of matters affecting air quality on stack D1 (boiler K1) in Kolubara TPP. For boiler K1 emissions are calculated by multiplying operating periods (h) with output pollutant flow rate (Nm³/h) and mean measured mass concentration (mg/Nm³) obtained by periodic emission measurement in 2018.

				l able 5
NIKOLA TESLA TPPs BRAI	NCH			
Emissions of matters affect	ting air quality in 2018 (t/	'year)		
Organizational unit	Particulate matter	SO ₂	NO _x (NO ₂)	CO ₂
	TF	PP NIKOLA TESLA A		
A1-A2-A3	2.081	35.681	4.862	4.183.110
A4-A5-A6	918	53.025	7.165	5.289.996
Total: TENT A	2.999	88.706	12.027	9.473.106
	TF	PP NIKOLA TESLA B		·
Total: TENT B	1.731	89.045	12.014	8.531.319
		KOLUBARA A TPP	•	·
K1	663	1.933	305	158.803
K3, K4 and K5	1.829	3.526	569	301.213
A5, K6	241	2.659	852	324.300
Total: KOLUBARA A TPP	2.733	8.118	1.726	784.316
		MORAVA TPP		•
Total: MORAVA TPP	70	11.029	1.219	553.154
TOTAL: NIKOLA TESLA TPP BRANCH	7.533	196.898	26.986	19.341.895

Calculation for CO_2 was done based on the fuel consumption, presented in Table 54 and CEF – correction emission factor.



NIKOLA TESLA TPPS BRANCH									
Fuel consumption in 2018									
Organisational unit	TI	ENTA		TENT B	KOLUBARA A TPP		MORAVA TPP	Total for Branch	
Raw material	Unit	(t/year)	Unit		Boiler	(t/year)	(t/year)	(t/year)	
	A1	1.503.944	B1	6.056.628	K1	223.271	591.360		
	A2	1.551.180	B2	6.537.266	K2	-			
0041	A3	3.068.025			K3	202.832			
COAL	A4	1.890.491			K4	102.324		28.165.453	
	A5	3.030.954			K5	119.331			
	A6	2.834.843			K6	453.004			
	TOTAL	13.879.437		12.593.894		1.100.762	591.360		
	A1	3.223	B1	8.693	K1	-	1.287		
	A2	3.275	B2	8.997	K2	-			
	A3	2.078			K3	-			
HEAVY FUEL OIL	A4	3.795			K4	-		35.620	
	A5	2.189			K5	-			
	A6	2.083			K6	-			
	TOTAL	16.643		17.690		-	1.287		
	A1	-	B1	-	K1	343	293		
	A2	-	B2	-	K2	-			
OIL	A3	-			K3	189			
	A4	-			K4	108		1.945	
	A5	-			K5	127			
	A6	-			K6	885			
	TOTAL	-		-		1.652	293		

- Harmonisation of emissions of matters affecting air quality with EU ragulations

Particulate matter

Unit A3 electrostatic precipitator was reconstructed in 2014. This means that to date electrostatic precipitators of all the Nikola Tesla A TPP units (A1, A2, A3, A4, A5 and A6) were reconstructed, along with the Nikola Tesla B units (B1 and B2) and unit A5 of the Kolubara A TPP. Outlet dust mass concentration guaranteed by the equipment supplier is ≤ 50 mg/Nm3, which is in line with EU and Serbian legislation.

Electrostatic precipitator of the Morava TPP was reconstructed in order to achieve the output dust concentration of 50 mg/Nm3, during the 2016 overhaul. Individual measurements of matters affecting air quality carried out in 2017 confirmed an outlet dust mass concentration within the values guaranteed by the equipment supplier.

Sulphur dioxide

During the designing and construction of the Nikola Tesla A and B TPPs no sulphur oxides emissions reduction measures were undertaken. To reduce sulphur oxide emissions below 200mg/Nm3 in line with the Serbian and EU legislation flue gas desulphurization plants should be introduced in the forthcoming period.



In 2011, the Japanese Government approved a loan to introduce the flue gas desulphurisation system at the Nikola Tesla TPPs. During 2012 a consultantc, Japanese company TEPSCO, was selected and the preparation of the tender and pre-qualification documents for the procurement, installation and commissioning of the TENT A FGD plant equipment was initiated. TEPSCO conducted a Report on the preliminary design of FGD TENT A (A3 - A6). After Basic Design for A3- A6 Units FGD Plant Nikola Tesla A TPP had been revised, TEPSCO prepared a project report used to draft the tender documents in late 2013. In early 2014 call for tenders was published for the potential equipment and works suppliers. Following the tender procedure, a consortium led by Mitsubishi Hitachi Power Systems was selected as the contractor in September 2017. The signed contract with the contractor has been valid from November 2017. The start of the works at TENT A site is planned for the first quarter of 2019. The implementation of the Flue Gas Desulphurization Project will last for 42 months. During 2018, in addition to numerous activities a New General Regulation Plan for TENT A was developed and adopted by the authorities in June 2018. Public discussion and presentation of the Study on environmental impact of FGD on units A3-A6 at TPP "TENT A" were conducted in November 2018. After getting the approval for the Study from the Ministry for environmental protection the conditions will be fullfilled for building permit acquisition.

Nitrogen oxides

In the previous period, primary measures have been introduced on units A3 and A5 TENT A and during capital overhaul in 2018 also on unit A4. Guarantee measurment were performed – TEST A by acredited laboratory which confirmed guarantee parameters of the system of nitrogen oxide emission reduction on unit A4.

The plan is to introduce primary nitrogen oxide reduction measures in the coming period on unit A6 TENT A, as well as on units B1 and B2 TENT B.

3.2.3. Emission Measurements of Matters Affecting Water Quality

Water used for condenser water vapour cooling has the highest share in the total amount of make-up water used by PE EPS Nikola Tesla TPPs Branch. River water is captured, used to cool condensers and subsequently discharged via the return tunnel back into the recipient. TENT A and TENT B use the Sava River water for cooling, while the Morava TPP uses the Morava River water. They have an open cooling system. Kolubara A TPP uses the Kolubara River water and it has a closed cooling system - towers.

Some 2.5% of captured water is used for thin slurry (ash and slag) transport in TENT A. Additionally 0.7% of captured water in the TENT B is used for ash and slag transport and wetting of the disposal.

Wastewater originating from the thin slurry transportation system is discharged directly or indirectly into the recipient in the form of overflow and drainage water, where ash water ratio is 1:10 – TENT A, Kolubara A TPP. Drainage and overflow waters in TPP Morava are returned by pumps to the system for ash and slag transport.

In the case of the thick slurry transport (ash/water ratio - 1:1) used by TENT B there is no overflow and discharge of drainage water into the recipient. This water is stored in winter and used for disposal site wetting in summer.

Demineralized water (demi water) used by boilers and the water-vapour system is produced by a chemical water treatment plant. Demi water is produced by chemical treatment of groundwater in ion exchangers. Kolubara A TPP demi water is obtained by treating decarbonised water in ion exchangers - columns. Raw water is captured from tube wells located are along the riverbank. HCl or NaOH solution is used to regenerate ion masses, resulting in acid and alkaline wastewater used for ash and slag transport.

Sanitary wastewater is after mechanical-biological treatment under aerobic conditions (TENT A and TENT B) discharged directly or indirectly into the river. The equipment for sanitary wastewater treatment Biodisk, in TENT A has a UV lamp for water desinfection before it is released into the Sava. At the Morava TPP, sanitary water is discharged into the city sewer network.

Water containing oil and/or fuel oil is after oil or fuel oil removal from the water surface by means of adsorption agents indirectly via storm drainage or a return cooling water tunnel discharged back into the recipient (TENT B, TEK and TEM).



Waste water treatment plant was constructed and commissioned at TENT A in 2016, and it consists of several units:

- storm water from the concrete surfaces and roofs of the administrative building, the maintenance building, the turbine hall and the rolling stock, as well as other facilities at site runs through the main collector, and from the concrete surfaces and roofs of the RT buildings, warehouse and the external rolling stock runs through the secondary collector and flow into the return cooling water channel. Storm water and other wastewater from the coal landfill, (water from wagons defrosting, washing of inclined bridges and conveyor belts, from bulldozer depots) after purification at the wastewater treatment plant (G1), are discharged into the old drainage channel of the ash landfill;

- waste waters from drainage pit of heavy oil station, condensate expander and drainage pits of heavy oil heating stations, after treatment at the plant for pretreatment of heavy oil waste waters (UM1), are taken to the oily waste water treatment plant (U1),

- except for the heavy oil waste waters which were pretreated on API- separator (UM1), waste waters from machine hall drainage pits are treated at U1 plant and then discharged into the old ash landfill drainage channel;

- plant for treatment of waste waters resulting from the flue gas desulphurization process (FGD) is not in operation at this time because the construction of FGD plant is still underway;

Waste water control in the facilities of TENT Branch and its impact on recipients and groundwater is done 4 times a year, except for the return cooling water at TENT A and TENT B and and water at the oil separator outlet at TENT A waste disposal, which are analyzed once a month. Tests are carried out by Accredited Laboratories.

The program of control of each organizational part of the TENT Branch includes the physical and chemical, bacteriological and radiological parameters that are given as necessary for monitoring the compliance with the legal regulations related to certain types of water.

Control program includes the following types of water:

- Waste waters at discharging points into the river;

- River waters- recepients on the profiles upstream and downstream of the waste water discharge point;

- Groundwater in the vicinity of ash and slag landfill (piezometers and rural wells)

Within the control program, monitoring of the efficiency of devices for wastewater treatment is also carried out at TENT A (G1, UM1, Biodisk)

Ash and slag landfills groundwater quality impact is monitored by testing water quality in the piezometers and rural wells located in the landfill vicinity. Long-term studies have shown that concentrations of sulphate and arsenic are relevant parameters to monitor the groundwater impact of ash and slag landfills. Sulphate ion, originating from the landfill is characterised by the fastest migration and is considered to be an excellent tracer for monitoring of the landfill groundwater impact.

There is groundwater control in piezometers in vicinity of coal storage and waste storage in TENT A.

TENT B recorded the current state (so-called initial state) of groundwater quality prior to the comencement of ash landfill site exploitation. Groundwater quality data (initial state) are of great importance for further monitoring and evaluation of the ash landfill groundwater quality impact.

Annual surface and groundwater quality reports for each TENT unit are submitted to Serbian Environmental Protection Agency, to the competent inspectors upon their request, as well as to the relevant institutions during the permitting process.

Results of water quality measurements are presented in the Environmental Report developed each year for every organisational unit. Additionally, data are presented in the National Pollution Sources Registry delivered by PE EPS TENT Branch each year to the Environmental Protection Agency in line with the legal regulations.



Surface and groundwater quality monitoring for the first two quarters in 2018 was executed by accredited laboratories - Anahem Laboratory, Belgrade (TENT B, Kostolac TPP and Morava TPP) and City Institute of Public Health Belgrade (TENT A) and for the third and fourth quarter at all four locations the water quality control was performed by the Institute for occupational protection Novi Sad.

Table 55 shows the analysis of wastewater, watercourse and recipient quality data for 2018 in terms of their legal compliance.

In case of surface waters, legal compliance was evaluated by comparing the measured values of hazardous and harmful substances with the limits defined by the Regulation stipulating limit values for pollutants in surface and ground waters and sediments, and due dates for their achievement (Official Gazette of RS No. 50/2012) while wastewater values were compared with the limits defined by the Regulation stipulating limit values of pollutants in water and due dates for their achievement (Official Gazette of RS No. 67/2011, 48/2012 and 1/2016).

NIKOLA TESLA TPPs BRANCH									
Water quality in 2018									
Organizational unit	TENT A	TENT B	KOLUBARA A TPP	MORAVA TPP					
Water type	Waste water and recipients								
Drainage wastewater from the landfill	 suspended solids: <1 - 194mg/l, no LV exceedance arsenic: 4 - 67µg/l, LV exceedance of 10µg/l in waste water of old and new drainage channel sulphates: 30-528mg/l Below LV-2.000mg/l 	 suspended solids: 2,5 - 12 mg/l, arsenic: 12 - 18µg/l, sulphates: 147- 698mg/l NOT DISCHARGED 	-	Not discharged into recipient					
Overflow wastewater from the landfill	 suspended solids: <1 - 84 mg/l, no LV exceedance arsenic: 58 - 375µg/l. above LV- 10µg/l sulphates: 216 – 507mg/l. below LV-2000mg/l Note: analysed sample is a mixture of overflow and drainage waters with mostly overflow waters 	 suspended solids <1 231 mg/l, below LV arsenic: 45 - 380µg/l. Above LV- 10 µg/l. sulphates: 123 – 499mg/l NOT DISCHARGED 	suspended solids 1,3- 86,5 mg/l one sample exceeds MPC (35 mg/l) arsenic: 0,02-0,1832 mg/l above MPC (0,01 mg/l) sulphates: 119-459.8 mg/l below MPC (2000mg/l)	pH 10,7-11,97 suspended matter 25-334 mg/l As 0,02 mg/l (III quarter) Pb 0,02-0,13 mg/l Not discharged into recipeint.					
Recipient	No changes of the Sava River quality upstream - downstream of TENT A for: • arsenic: not exceeding LV - 10µg/l • sulphates:17- 52mg/l. Below LV -100 mg/l • mineral oil: not identified	No changes of the Sava River water quality upstream- downstream of TENT B: • arsenic: not exceeding LV -10µg/l •sulphates:9.8 – 25 mg/l, below LV-100 mg/l	Turija River: -arsenic: upstream - above MPC (0,01 mg/l) was one sample and downstream two samples are below MPC -sulphates: upstream – all samples below MPC (100 mg/l), downstream	Velika Morava River upstream wastewater discharge: pH 7.94-8.1 suspended matter 4.5-124mg/l BOD5 1-7.3 mgO2/l COD 7.9-22 mgO2/l NO3 – 0,33-8,3 mgN/l NO2 – 0,006-0,147 mgN/l					


differences (TENT A upstream and downstream) do not exceed 3°C (legal limit) and it amounts to 1,0°C.	 mineral oil: not identified Sava River temperature differences (TENT B upstream and downstream) do not exceed 3°C (legal limit) and it amounts to 1,0°C. 	MPC (138,7 mg/l.) Kolubara River: -arsenic: upstream and downstream all samples below MPC (0,01 mg/l) -sulphates: upstream and downstream all samples below MPC (100 mg/l) - Mineral oils in Kolubara upstream and downstream <0.01 mg/l - Kolubara River temperature difference upstream and downstream from TEK is within the legal limit (3°C).	Total N 0,26-8,5 mg/l TOTAL P 0,04-0,52 mg/l As 0,0042- 0,017 mg/l Fe 0,067-0,574 mg/l Increased number of heterotrophs (I quarter) Velika Morava River downstream wastewater intake : pH 8-9 suspended matter 24-136 mg/l BOD 0,5-7,1 mgO2/l COD 6,9-22 mgO2/l NO2 – 0,145 mgN/l (IV quarter) Total C (TOC) 2,88-7,6 mg/l Total N 0,22-10,1 mg/l Total N 0,22-10,1 mg/l Total P 0,03-0,79 mg/l Fe 0,041-0,583 mg/l Velika Morava River during sand filters wastewater discharge: pH 8,5-11,3 suspended matter 6,8-445 mg/l Disolved O2 6 mg/l BOD 0,5-22 mgO2/l NO3 – 5 mgN/l (II quarter) NO2 – 0,479 mgN/l (IV quarter) Total C (TOC) 2,88-12,9 mg/l Total N 0,3-5,71 mg/l As 0,005-0,016 mg/l Fe 0,045-0,915 mg/l Mn 0,123 mg/l (III quarter) CI- 13,12-796 mg/l Total mineralization 2.164 mg/l (II quarter) Electric conductivity 435- 3.592 µS/cm
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Table 56 shows the groundwater quality data analysis in the ash and slag landfill site vicinity in 2018 in terms of their legal compliance. Analysis was provided for certain tested parameters of greater importance.

During 2018 groundwater quality monitoring in TENT A was conducted in 14 piezometers and 3 rural wells, TENT B – 7 piezometers and 4 rural wells, TPP KOLUBARA A - 5 piezometers and 4 rural wells and TPP Morava 1 piezometer and 3 rural wells.

Legal compliance is evaluated by comparing the groundwater measuring values from piezometers with remediation values of hazardous and harmful substances and values indicating serious groundwater



contamination in line with the Regulation stipulating the systematic monitoring programme including soil quality indicators, indicators used to assess soil degradation risks and remediation programme development methodology (Official Gazette of RS No. 88/2010), while the rural wells water data are compared with the maximum permissible concentrations (MPCs) stipulated by the Rules defining potable water quality (Official Gazette of FRY No. 42/98 and 44/99).

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NIKOLA TESLA TPPs BRANCH									
Grou	Groundwater quality around ash and slag landfills in 2018								
	Perm va	issible lues	Organisational unit						
	* **		TENT A	TENT B KOLUBARA TPP A		MORAVA TPP			
Sulphates (mg/l)	250		Highest in piezometers: P24/a, P7-3, Π6-3 and P2 (from 49 mg/l – 596 mg/l). Below MPC in all samples of rural wells.	Highest in piezemeters: P9/1, P80 and P2: 158mg/l-476 mg/l Below MPC in all samples of rural wells.	In wells: •N2, 124 – 617,8 mg/l , in three samples over MPC; •N4, 93 - 483 mg/l, in two samples over MPC. Below MPC in all samples of rural wells.	In controlled piezometer 61-225,6 mg/l. Above MPC in 1 well measured 293 mg/l.			
Arsenic (µg/l)	10	60	Above MPC in one piezometer P7-3 (0.1mg/l) Above MPC in one sample from the well in Urovci (0,012 mg/l).	Below MPC in all piezoemeters. Below MPC in all rural wells.	In wells below MPC in all samples. In piezometers above MPC in two piezometers of one sampling series (VIII-1 and XV-1) and in one piezometer in two sampling series (I-2).	In controlled piezometer below MPC. Above MPC in 4 wells measured 6,7-23 µg/l.			
Lead and cadmium (mg/l)	Pb 0,01	Pb 0,075 Cd 0,006	Lead above MPC in two samples of piezometer P7-3 and one P19 and Π7a (0,076 – 0,081mg/l). Cadmium above MPC in two samples of piezometers P19 and one P7a and P21. (0,0072 – 0,013mg/l).	Both lead and cadmium below MPC limit in all piezometers	In wells Pb is below MPC in all samples In piezometers Pb and Cd are below MPC in all samples excapt in sample VIII-1 in one sampling series.	In controlled piezometer Pb is below MPC. Below MPC in all wells.			
Zinc (mg/l)	3,0	0,8	Above MPC in most samples of piezometers (0,87 – 30,7 mg/l)	Above MPC in some samples of piezometers P59, P4 and P35 (1,7 – 3,3 mg/l)	Zinc below MPC in all samples in wells and piezometers	In controlled piezometer zinc is below MPC. Below MPC in all wells.			



Manganese (mg/l)	0,05		Above MPC in one rural well 2 in Krtinska– 0,066 mg/l.	Above MPC in some samples of well 2 in Grabovac. Measured concentrations over MPC to 0,37 mg/l.	In Wells : N1 - 0,068 mg/l , 0,16 mg/l and 0,426 mg/l, in three samples above MPC. N2 – 0,397-3,53 mg/l, in all samples above MPC. N3 - 0,512 mg/l and 0,764 mg/l in two samples above MPC. N4 – below MPC in all samples.	In controlled piezometer below MPC. Above MPC in 2 wells measured 0,441-0,773mg/l.
Ammonia (mg/l)	0,03		Ammonia is below MPC in all samples of rural wells. Nitrites above MPC registered in all	Ammonia above MPC in some samples from well Dren and well 2 in Grabovac (0,17 – 0,29 mg/l). Nitrites above MPC in MPC in some samples	Ammonia below MPC in all wells and piezometers except in one sampling series from well N2:4,51 mg/l Nitrites are below MPC	In controlled piezometer below MPC. Above MPC in 1 well measured 2,09 mg/l. In controlled
Nitrites (mg/l)	Nitrites (mg/l)		samples (0,034 – 1,86 mg/l)	from wells in Dren, Grabovac 2 and Usce (0,10 – 0,38 mg/l).	in N1, N2 и N4 wells, above MPC one samping in well N3: 3,31 mg/l	piezometer below MPC. Above MPC in 2 wells measured 0,169-2,41 mg/l.
Nitrates (mg/l)	50		Above MPC in most samples taken from all wells (62 - 285 mg/l)	Nitrites below MPC in all rural wells	Below MPC in all samples taken from wells	In controlled piezometer below MPC. Below MPC in all wells

*MPC of potable water;

**Remediation values of hazardous and harmful substances and values indicating serious groundwater contamination

As the concentration of manganese in the overflow and drainage waters of ash landfill is low, increased manganese in rural wells water is probably caused by the high level of this element in soil, which can be concluded from the fact that concentrations of manganese and nitrites in the rural wells water are increased as well as bacteria around the TENT B ash landfill established by the initial state testing.

Measured high concentration of zinc in piezometers on TENT A and TENT B is the result of dissolution of metal from galvanized pipes piezometers are made of.

Bacteriological analysis of rural wells water indicated the presence of coliform bacteria. Occurrence of the increased ammonia, nitrite and nitrate concentrations is of faecal origin which is caused by the proximity of septic tanks and stables, which is concluded based on the data on initial state.

Table 57 provides the analysis of sanitary wastewater quality data at the treatment plant inlet and outlet for 2018.



Tabla 50

NIKOLA TESLA TPPs BRANCH									
Sanitary wastewater treatment plant operation in 2018									
Pollutants concentration (mg/l) MPC (mg/l) Biodisk plant TENT A Putoks plant TENT B									
Suspended solids (mg/l)									
Plant inlet	-	35 - 164	26 – 84						
Plant outlet	75	4 - 38	3,5 – 42						
Biological oxygen demand for	Biological oxygen demand for 5 days (BPK5)								
Plant inlet - 51,4 - 78 17 - 45									
Plant outlet	50	7 – 19,6	6 – 60						

• Water amounts

Table 58 provides an overview of water amounts captured and discharged by TENT Branch organisational units for 2018. TENT A and TENT B calculation of annual amounts of captured surface waters and discharged return cooling water, as well as overflow and drainage water on TENT A is prepared based on the data on capacity and operating time of the pumps for capturing i.e.discharging water. In TENT A and TENT B, there are flow meters both for captured and dischared water. In the case of gravitational wastewater discharges calculations were made based on previous wastewater measurements (overflow and drainage water from the ash and slag landfill). Veliki Crijeni potable water treatment plant supplies Veliki Crijeni and Kolubara A TPP with potable water. A gauge was installed for the line running towards the Kolubara A TPP, also supplying one part of the settlement and the sports centre.

NIKOLA TESLA TPPs BRANCH										
Water amounts in 2018 (m	³ / year x10 ³)									
Reservoir Discharged wastewater										
	Used a	amounts		Wastewater	Overflow and	Sanitary				
Organizational unit	Surface	*Subterranean waters	Used amounts	discharged into Bare Channel	drainage water – ash disposal site	wastewater Surface				
Nikola Tesla A TPP	1.180.067	950	1.149.734	-	28.872	64				
Nikola Tesla B TPP	1.219.283	357	1.210.868	-	-	46				
Kolubara A TPP	5.012	-	-	650	210	410				
Morava TPP	60.517	76	58.909	-	-	9,4				
TOTAL: NIKOLA TESLA TPP BRANCH	2.464.879	1.383	2.419.511	650	29.082	529,4				

For raw water preparation

Improvements aimed at reducing surface and groundwater wastewater impacts

One of the conditions to obtain the integrated permit for further operation of TENT A and TENT B and operation after 2017 is to reduce emissions to water in accordance with the Water Act (Official Gazette of RS No. 30/10) and the Regulation stipulating pollutants limit values in waters and due dates for their achievement (Official Gazette of RS No. 67/2011, 48/2012 and 1/2016).

TENT A

Wastewater treatment plant was constructed in 2016 and it includes treatment plant for coal contaminated waste water (G1), oil contaminated waste water (U1) including pre-treatment of heavy oil contaminated waste waters



(UM1) and FGD wastewaters (that is not operating since FGD plant has not been built yet). The efficiency of treatment plant was monitored quarterly in 2018.

TENT B

Detail Design for the TENT B Wastewater Treatment Plant Construction has been prepared and a Contractor has been selected but the construction of the plant has not started yet due to the impossibility of the Contractor to execute works. Plant Design was implemented through decentralized system for IPA Projects management (EU Delegation was responsible for management of the project), having in mind a fact that the construction of the plant was approved for financing from IPA 2011 Funds.

3.2.4. Emission Measurements of Matters Affecting Soil Quality

During 2018 the testing of soil quality and the content of total and available forms of heavy metals and potentially harmful elements in soil was continued, together with the monitoring of chemical composition and water quality in the melioration channels around TENT to identify landfill soil and water impacts. Annual monitoring reports covering ash and slag landfill soil and melioration channels impacts for each of the PE EPS organisational unit are made available to the inspection upon request. Soil quality measurement results are presented in an Environmental Report prepared by each organisational unit. In addition, they are presented in the National Polluters' Register of Serbia submitted by TENT to the Environmental Protection Agency in line with the legal obligations.

Sampling and testing was performed by Institue 'Vatrogas' Novi Sad, once in 2018 in vegetation period at locations of TENT A, TENT B, TPP Kolubara and TPP Morava. Samples were analysed for: physical properties of soil, chemical properties of soil, soil reaction, topsoil content, total nitrogen and organic carbon soil content, nitrate and nitrite ions content, available phosphorus and potassium content, heavy metals content and other toxic elements.

The programme included: field and laboratory measurements on representative sampling points entered into the topographic map (GPS identified points), allowing future monitoring of changes of the studied parameters at the same measuring points.

Measuring points are defined depending on their distance from the landfill. A total four sampling zones has been defined (three impact zones and one control zone) as follows

- Zone 1 up to one kilometre from the landfill,
- Zone 2 between one and three kilometres from the landfill,
- Zone 3 –three to five kilometres from the landfill, and
- Zone 4 represents control sample taken at the distance of more than five kilometres from the landfill.

The content of heavy metals and other toxic elements in ash and soil was within normal ranges and below remedation values for: chromium (Cr), lead (Pb), copper (Cu), zinc (Zn), cadmium (Cd), mercury (Hg), arsenic (As) and boron (B).

Data were evaluated based on the Regulation stipulating the systematic monitoring programme including soil quality indicators, indicators used to assess soil degradation risks and remediation programme development methodology (Official Gazette of RS No. 88/2010) and the Regulation stipulating permissible hazardous and harmful substances content in soil and irrigation water and their testing methods (Official Gazette of RS № 23/94 and by Regulation on limit values for pollutant, harmful and dangerous substances in soil (Official Gazette of RS No. 30/2018).

TENT A and B

In TENT A, ash is disposed by uniform discharge of a water and ash mixture (slurry) into the storage area (active cassette), while the remaining area is temporarily idle (passive cassette). Uniform ash disposal is achieved by changing the unloading points on the active cassette, as well as by switching from one to another cassette,



every 5 to 6 years (transitional period). The landfill occupies a total area of 400 ha. The entire area is divided into 3 cassettes. Disposal of ash and slag takes place in cassette II and cassette III has been idled since April 2018.

Total area of the disposal of TENT B is 600 ha, out of which 400 ha were used for ash and slag disposal. Technology of collecting, transport and disposal of ash was changed from thin to thick slurry (on 4th October 2009 unit B2 was connected to new system, while B1 was connected on 30th May 2010). Currently cassette II is active, and cassette I is idle.

On TENT A and TENT B locations, ash and 30 soil samples were analysed.

KOLUBARA A TPP

In 1979, the Kolubara TPP introduced a new ash separation system from flue gases, cyclones were replaced by electrostatic precipitators, and instead transporting the ash by a cable car, the hydraulic transport of ash and slag was introduced.

The reconstruction of ash handling system of Unit A5 Kolubara TPP in 2009 is part of a joint project, which also included a reconstruction of an electrostatic precipitator plants aimed at reducing dust emissions to the limit values.

Ash and slag landfill area is 78ha and has four cassettes. Two cassettes (1 and 2) were permanently recultivated by foresting in 2009.

At the Kolubara TPP, ash and 16 soil samples were analysed taken from the landfill.

MORAVA TPP

Retention of ash and slag is achieved by constructing peripheral embankments. In total there are eight bunds (cassettes), of which I, II, III, IV, V and Vi were biologically re-cultivated (grass sowing, planting of fruit and other plants), cassettes VII is the area where ash is used for cement plants needs, and cassette VII is active and ash and slag are disposed there. In 2014 overflow reservoir system is built where drainage water from ash and slag landfill is collected and then returned by pump system into excavator station for further ash and slag transport.

At the Morava TPP, ash and 17 soil samples were analysed taken from the landfill.

Table 59 contains measurement results evaluation in accordance with the above legislation. Data show pollutant content in ash as a potential pollution source, however data were not evaluated since the above mentioned legislation refers to soil not ash.

						l able 59					
NIKOLA	NIKOLA TESLA TPP BRANCH										
Conten	t of pollu	tants	in soil around ash	landfill affecting the soil	quality in 2018						
content mg/kg)	۲۸	RV	TENT A	ТЕМТ В Б	KOLUBARA TPP	MORAVA TPP					
00	mg/ł	g									
Chromium (Cr)	100	380	Ash: 24.1 (± 7.88) Soil: Out of 24 samples, 5 exceed LV. None exceeds RV. Soil, control zone:	Ash: 24.5 (± 7.60) Soil: Out of 23 samples, 2 exceed LV. None exceeds RV. Soil, control zone: Out of 4 samples none exceeds neither LV nor RV Zone across Sava:	Ash: 97.5 (±34.1) Soil: Out of 15 samples, 1 exceed LV. None exceeds RV. Soil, control zone:	Out of 17 samples in 9 of them (No.1,2,3,4,5,12,13,14,17) chromium exceeds LV.					



			Out of 5 samples one exceedes LV. None exceeds RV.	Out of 2 samples none exceeds neither LV nor RV	Control sample not exceeding LV and RV.	
Nickel (Ni)	35	210	Ash: 50.2 (±15.56) Soil: Out of 24 samples, 22 exceed LV. None exceeds RV. Soil, control zone: All 5 samples exceede LV. None exceeds RV.	Ash: 30.02 (± 10.06) Soil: Out of 23 samples, 18 exceed LV. None exceeds RV. Soil, control zone: Out of 4 samples 2 exceedes LV. None exceeds RV. Zone across Sava: Out of 2 samples one exceeds LV. None exceeds RV.	Ash: 126.4 (±39.2) Soil: All 15 samples exceed LV. One sample exceeds RV. Soil, control zone: control sample exceeds LV, but not RV.	Out of 17 samples in 13 of them (No.1,2,4,5,6,7,8,9,10,11,13,15,16) nickle content exceeds LV. Out of 17 samples in 4 of them (3,12,14,17) nickle content exceeds RV.
Lead (Pb)	85	530	Ash: 16.00 (± 14,85) Soil: Out of 24 samples, none exceeds LV and RV. Soil, control zone: out of 5 samples non exceeds LV and RV.	Ash: 5.40 (± 1.85) Soil: Out of 23 samples none exceeds LV and RV. Soil, control zone: Out of 4 samples, non exceeds LV and RV. Zone across Sava: out of 2 samples non exceeds LV or RV.	Ash: 5.8 (±2.1) Soil: Out of 15 samples none exceeds LV and RV. Soil, control zone: Control sample does not exceed LV and RV.	Out of 17 samples in 4 of them (бр.4,12,14,17) lead content exceeds LV
Copper (Cu)	36	190	Ash: 38.8 (±12.03) Soil: Out of 24 samples, 15 exceed LV. None exceeds RV. Soil, control zone: Out of 5 samples 1 exceeds LV. None exceeds RV.	Ash: 10.9 (± 3.2) Soil: Out of 23 samples, 6 exceed LV. None exceeds RV. Soil, control zone: Out of 4 samples 1 exceeds LV. None exceeds RV Zone across Sava: Both samples exceed LV. None sample exceeds RV.	Ash: 7.1 (±2.2) Soil: Out of 15 samples, 6 exceeds LV. None sample exceeds RV. Soil, control zone: Control sample does not exceed LV and RV.	Out of 17 samples,in 7 (бр.1,3,4,12,13,14,17) the lead content exceeds LV.



Zinc (Zn)	140	720	Ash: 58.4 (±18.69) Soil: Out of 24 samples, 10 exceed LV. None exceeds RV. Soil, control zone: Out of 5 samples 2 exceeds LV. None exceeds RV	Ash: 7.3 (± 2.3) Soil: Out of 23 samples, 4 exceeds LV. None exceeds RV. Soil, control zone: Out of 4 none exceeds LV and RV. Zone across Sava: Out of 2 samples none exceeds LV and RV.	Ash: 40.1 (±12.8) Soil: Out of 15 samples, 2 exceed LV. None sample exceeds RV. Soil, control zone: Control sample does not exceed LV and RV.	Out of 17 samples, in 8 (no.1,2,3,5,12,13,14,17) zinc content exceeds LV.
Cadmium (Cd)	0.8	12	 Ash: < 0.20 Soil: Out of 24 samples none exceeds RV and LV. Soil, control zone: Out of 5 samples non exceeds LV and RV. Soil, control zone: Out of 4 samples non exceeds LV and RV. Soil, control zone: Out of 5 samples non exceeds LV and RV. 		Ash: <0.2 Soil: Out of 15 samples, none exceeds LV and RV. Soil, control zone: Control sample does not exceed LV and RV	No exceedance
Mercury (Hg)	0.3	10	Ash: < 0.10 Soil: Out of 24 samples none exceeds RV and LV. Soil, control zone: Out of 5 samples non exceeds LV and RV.	Ash: <0.10 Soil: Out of 23 samples none exceeds RV and LV. Soil, control zone: Out of 4 samples non exceeds LV and RV. Zone across Sava: Out of 2 samples none exceeds LV and RV.	Ash: <0.1 Soil : Out of 15 samples, none exceeds LV and RV. Soil, control zone: Control sample does not exceed LV and RV .	No exceedance
Arsenic (As)	29	55	Ash: 178.6 (± 62.51) Soil: Out of 24 samples none exceeds RV and LV.	Ash: 10 (± 3.5) Soil: Out of 23 samples none exceeds RV and LV. Soil, control zone: Out of 4 samples non exceeds LV and RV.	Ash: 3.5 (±1.1) Out of 15 samples, none exceeds LV and RV. Soil, control zone:	Out of 17 samples, 3 of them (no.3,12,17) Arsenic content exceeds LV. Out of 17 samples, in 1 sample (no.1) Arsenic content exceeds LV



		Soil, control zone: Out of 5 samples non exceeds LV and RV	Zone across Sava: Out of 2 samples none exceeds LV and RV	Control sample does not exceed LV and RV	
Boron (B)	•	Ash: <0.7 Soil: Out of 24 samples none exceeds RV and LV. Soil, control zone: Out of 5 samples non exceeds LV and RV.	Ash: <0.7 Soil: Out of 23 samples none exceeds RV and LV. Soil, control zone: Out of 4 samples non exceeds LV and RV. Zone across Sava: Out of 2 samples none exceeds LV and RV	Ash: <0.7 Out of 15 samples, none exceeds LV and RV. Soil, control zone: Control sample does not exceed LV and RV	No exceedance

3.2.5. Noise Measurement in Environment

During 2018 in TENT Branch area environment noise levels were measured by City Institute for Public Health Belgrade. Noise levels were measured on four measuring points around each plant. Measurement points are distributed in different areas, at different distances from the plants. At the order of the inspection, noise was measured at three points in TENT A and TENT B, the closest one to the residential area. Measurements were conducted during the day, evening and night mode. Table 60 shows values for day and night measurements as mean values of two fifteen-minute measurements. The measurements were done in line with SRPS ISO 1996-1 and SRPS ISO 1996-2. Ultimate objective of the above measurements was to determine noise levels indicated as the measured equivalent levels.

Annual Environmental Noise Levels Reports for each TENT Branch organisational unit are made available to the relevant inspector upon request. Environmental noise levels are also presented in an Environmental Report prepared each year for every organisational unit.

Noise during thermal energy generation is created by operation of the following plants: mills, turbines, flue gas fan while occasionally during unit operation disturbances (boiler), noise is created by when safety valves are turned on, lasting up to 1 minute.

Table 60 shows the measured noise levels in 2018 for the Nikola Tesla TPPs Branch.

Local governments of Obrenovac, Lazarevac (Belgrade City), and Svilajnac have not carried out acoustic zoning in accordance with the Environmental Noise Protection Act (Official Gazette of RS No. 36/09 and 88/10). Due to the lack of clearly limited acoustic zones it was not possible to accurately determine the measuring points.

Therefore, City Institute for Public Health Belgrade reports on performed measurements for measuring points in the closest residental zones TENT A and TENT B suggested acoustic zone 5 – City centre, trading, crafts, administrative zones containing flats, zones along motorways, state and city roads. According to Regulation stipulating acoustic zones identification methodology (Official Gazette of RS No. 72/2010): Zone 6 – Industrial, storage, service areas and transport terminals without residential buildings borders Zone 5 – City centre, trading, crafts, administrative zones containing flats, zones along motorways, state and city roads. Noise indicators limit values in open areas for Zone 5 in line with the above Regulation for day and evening is 65 dB (A) and night 55 dB (A). Results obtained by the measurement were compared to the prescribed values for measured level of noise for day, evening and night period of thermal power plant units' operation.



Measuring points selected as the residental area closest to TENT B, are along the motorway, so great noise influence is made by traffic noise.



NIKOLA TESL	A TPPs E	BRANCH					
Noise levels i	n 2018 (d	B)(A)					
				*Closed area		Day and evening	Night
Noise indicate	ors limit					35	30
values, Regulation stipulating noise			Areas rehab sites,	s for recreation, hospital ilitation centres, cultura large parks	zones and I and historical	50	40
indicators,	limit		Touri	st areas, camps and sch	nool zones	50	45
values, me	thods		Purel	y residential areas		55	45
assessing noise indicators, disturbance levels and harmful living environment noise effects (OG RS № 75/2010)		Open areas	Purel areas	y residential areas, trad	ing-residential unds	60	50
			City c zones motor	entre, trading, crafts, ac s containing flats, zones ways, state and city roa	lministrative along ads	65	55
			Indus trans	trial, storage and servic port routes without resid	e areas and ential buildings	At the border of this zone noise must not exceed the limit value in the zone with which it is bounded.	
Measuring	points	TENT A	TENT B KOLUBA			RA A TPP	MORAVA TPP
			During TPP shut down 06.08.2018.		During operation of TPP 22.11.2018.		
	1	51		66	56,5	44,5	56
Dav	2	49		69	55	57,5	60
Day	3	50		67	42,5	54,5	53
	4	50		50	66,5	66	47
	1	52		68	52	47	56
Evening	2	50		71	59	58	58
Evening	3	50		70	47	53	55
	4	50		49	64	63	48
	1	55		65	49,5	45	55
Niaht	2	50		69	53,5	55,5	55
Night	3	51		72	48	53,5	52
	4	50		46	62	54,5	48

Preparation of Study for noise decrease in the environment for TPP and TPP- HP is planned in the future period.

3.2.6. Waste

Waste created in 2018 is shown in Table 61, while waste quantities given to the authorized operators in 2018 are shown in Table 62.



NIKOLA TESLA TPPs BRANCH										
Gener	rated waste in 2018									
	RULEBOOK ON WASTE CATEGORIES, TES CLASSIFICATION	STING AND			Организациони део					
No.	"Official Gazette of RS", no. 56/2010 dated	10.8.2010	Unit (t)	TPP Nikola Tesla A	TPP Nikola Tesla B	Kolubara A TPP	Morava TPP		Note	
	Name	Index number								
1.	Used printer cartridges other than those indicated under 08 03 17	08 03 18	t	0,260	0,000	1,200	0,000	1,460	Waste cartridges	
2.	Ash, slag and dust from boiler (except the dust from boiler stated in 10 01 04)	10 01 01	t	2.780.761,67	2.516.828,07	264.234,49	140.712,00	5.702.536,230	Coal ash and slag	
	Coal fly ash	10 01 02		0.000		0.000	0.000	0.000		
3.	Spent waxes and greases	12 01 12*	t	0,000	0,000	0,000	0,300	0,300	Waste greases	
4.	Other hidraulic oils	13 01 13*	t	7,150	2,140	3,440	1,440	14,170	Waste hydraulic oils	
5.			t	1,560	0,000	0,000	3,840	5,400	Waste turbine oils	
6.	Other motor oils, gear oil and lubricating oil	13 02 08*	t	42,610	14,347	0,000	0,000	56,957	control oil	
7.		10 02 00	t	1,920	8,080	0,000	3,050	13,050	Waste motor oil, gear oil and lubricating oil	
8.	Liquid fuel waste	13 03 10*	t	1,580	0,000	0,000	0,630	2,210	Waste oil for insulation and heat transfer	
9.	Other fules- including mixtures	13 07 03*	t	33,080	0,000	0,000	0,000	33,080	Waste sludge and fuel from reservoir	
10.			t	0,200	0,000	0,000	0,110	0,310	Waste heavy oil	
11.	Other emulsions	13 08 02*	t	1,340	0,040	0,000	0,360	1,740	Waste water and oil emulsion (mixture water and oil)	
12.	Other solvents and solvent mixtures	14 06 03*	t	0,760	0,079	0,000	0,000	0,839	Waste solvents and solvent mixtures	
13.	Wooden packaging	15 01 03	t	53,500	0,000	0,000	0,000	53,500	Waste contaminated wooden packaging	
14.	Metal packaging	15 01 04	t	2,500	0,000	0,000	0,000	2,500	Waste FF device bottles	
15.		15 01 10*	t	0,020	0,105	0,000	0,000	0,125	Waste gas bottles	



16.	Packaging with residue of hazardous		t	4,888	0,805	0,300	0,000	5,993	Waste mutton cloth with oil and heavy oil
17.	substances or contaminated with hazardous substances		t	6,980	3,675	1,080	0,000	11,735	Rejected oiled filters
18.	Metal packaging containing dangerous solid porous matrix (e.g., asbestos), including empty bottles under pressure	15 01 11*	t	0,840	0,060	0,000	0,000	0,900	Waste absorption means with oil and heavy oil
19.	Absorbant filter materials wining slatte		t	2,660	4,260	0,420	0,170	7,510	Waste non-dangerous filters
20.	protective clothing contaminated by hazardous	15 02 02*	t	0,860	0,000	0,000	0,450	1,310	Waste pneumatic tires
21.	substances		t	7,500	4,460	0,200	0,510	12,670	Waste rubber conveyor belt
22.	Absorbent, filter materials, wiping cloths, protective clothing different from those mentioned in 15 02 02	15 02 03	t	0,000	0,060	0,000	0,000	0,060	Waste vehciles not containing liquids
23.			t	11,300	0,065	0,000	0,710	12,075	waste condensers with oil
24.	Waste tires	16 01 03	t	66,300	12,000	2,000	0,000	80,300	Waste from electric and electronic devices
25.	Waste vehicles not containing liquids or other hazardous components	16 01 06	t	30,000	11,280	0,000	0,000	41,280	Waste devices with mercury
26.	Discarded equipment containing bazardous		t	0,050	0,000	0,000	0,000	0,050	Waste chemicals
27.	components other than those indicated under	16 02 13*	t	8,422	2,643	5,000	0,750	16,815	Waste lead batteries
28.			t	0,020	0,000	0,000	0,000	0,020	Ni - Cd batteries
29.	Laboratory chemicals containig dangerous substances, includin laboratory chemical mixtures	16 05 06*	t	0,000	0,000	0,000	0,060	0,060	Waste wood
30.	Lead batteries	16 06 01*	t	1,720	9,071	0,000	2,140	12,931	Waste wooden railway tracks
31.	Nickel-cadmium batteries	16 06 02*	t	1,600	0,000	0,000	0,000	1,600	Waste wooden blocks
32.			t	0,000	0,009	9,000	2,540	11,549	Waste gas bottles
33.	Wood	17 02 01	t	480,000	0,000	0,000	0,000	480,000	Waste mutton cloth with oil and heavy oil
34.			t	155,460	0,000	0,000	0,000	155,460	Rejected oiled filters



35.	Plastic	17 02 03	t	1,040	0,030	15,000	0,180	16,250	Waste mixed plastics
36.			t	1.170	0.620	0.000	35.200	36.990	Waste and remains of
07	Copper, bronze, brass	17 04 01		0,110	0,000	4.070	0.000		copper and brass
37.			t	3,410	0,360	1,270	0,000	5,040	Waste copper cables
38.	Aluminium	17 04 02	t	2,680	0,000	0,000	0,000	2,680	Waste aluminium cables
39.		11 01 02	t	37,860	0,120	1,300	0,400	39,680	Aluminium sheet
40.			t	1.570,640	317,390	20,000	24,720	1.932,750	Waste iron over 5mm thickness
41.			t	316,270	57,020	15,000	12,460	400,750	Waste iron up to 5mm thickness
42.			t	3,000	3,000	35,000	1,100	42,100	Waste grey sheet iron
43.			t	10,050	0,000	0,000	0,000	10,050	Waste steel iron sheet
44.			t	68,700	46,997	8,000	0,740	124,437	Waste galvanized and black iron sheet
45.			t	125,000	0,000	0,000	0,000	125,000	Waste collection electrodes
46.		17 04 05	t	0,000	9,500	0,000	0,000	9,500	Waste FE cells
47.	Iron and steel		t	369,640	197,900	15,000	74,020	656,560	Waste impact plates
48.			t	68,240	0,000	0,000	0,000	68,240	Waste steam pipeline
49.			t	323,300	1,500	0,000	1,800	326,600	Waste boiler pipelines
50.			t	1.631,650	17,222	0,000	0,000	1.648,872	Waste and remains from iron and steel
51.			t	54,050	0,000	0,000	0,000	54,050	Waste rail tracks
52.			t	0,000	0,000	0,000	2,500	2,500	Waste steel sheet with rubber
53.			t	55,810	0,000	0,000	0,000	55,810	Waste rail accessories
54.			t	66,840	0,560	0,000	8,330	75,730	Waste mixed metals
55.	Mixed metals	17 04 07	t	0,000	0,000	0,000	0,180	0,180	Scrap metal shaving
56.			t	0,000	0,220	0,000	0,000	0,220	Waste petrol pump
57.	Waste metal containing dangerous substances	17 04 09*	t	0,380	0,000	0,000	0,000	0,380	Sheet contaminated by heavy oil
58.	Soil and stone containing dagerous substances	17 05 03*	t	0,000	2,260	0,000	0,000	2,260	Ashlar contaminated by oil



-	1								
59.			t	0,000	0,000	5,560	0,000	5,560	Scrap gravel from oil pits
60.	Soil and stone other than those mentioned in 17 05 03*	17 05 04	t	0,000	3,350	13,760	0,000	17,110	Srap gravel from oil pits
61.	Insualtion material containing azbestos	17 06 01*	t	0,360	0,000	0,000	0,000	0,360	Waste asbestos
62.	Insulation material other than those mentioned in 17 06 01 and 17 06 03	17 06 04	t	344,980	55,280	50,600	3,920	454,780	Waste mineral rock wool
63.			t	3,580	0,000	0,000	11,910	15,490	Waste plates
64.	Asbestos-containing insulation materials	17 06 05*	t	0,000	0,000	0,000	2,060	2,060	Waste concrete pipes with asbestos
65.	Mixed construction and demolition waste other than those indicated under 17 09 01 and 17 09 02 and 17 09 03	17 09 04	t	24.900,000	1.600,000	0,000	0,000	26.500,000	Mixed construction waste
66.	Sludge from other industrial waste water treatments other than mentioned in 19 08 13	19 08 14	t	74,945	0,000	0,000	0,000	74,945	Sludge from industrial waste water treatment
67.	Saturated or spent ion-exchange resins	19 09 05	t	29,110	9,800	2,720	6,000	47,630	Waste ion mass
68.	Minerals (e.g. sand and rock)	19 12 09	t	0,000	0,000	175,000	0,000	175,000	Waste white sand
69.	Textile	20 01 11	t	0,000	0,000	0,800	0,000	0,800	Firefighting hose-pipe
70.	Fluorescent tubes and other mercury-		t	0,750	0,480	0,080	0,090	1,400	Waste fluorescent tubes
71.	containing waste	20 01 21*	t	0,071	0,200	0,080	0,000	0,351	Waste Hg lamps and thermometers
72.	Edible oils and fats	20 01 25	t	0,000	0,004	0,000	0,000	0,004	Commercial-waste edible oil
73.	Rejected electric and electronic equipment other than mentioned in 20 01 21, 20 01 23, 20 01 35	20 01 36	t	0,000	0,002	0,000	0,000	0,002	Natrium bulbs



NIKO	LA TESLA TPPs BRANCH								
Wast	e given to operators in 2018								
	RULEBOOK ON WASTE CATEGORIES, TESTING AND CLASSIFICATION "Official Gazette of RS", no. 56/2010 dated 10.8.2010.				Organiz	ational unit			
٩. م			Unit (t)	TPP Nikola Tesla A	TPP Nikola Tesla B	Kolubara A TPP	Morava TPP	Total	Note
	Name	Index number				Amounts	;		
	Coal fly ash	10 01 02							
1.	Ash, slag and dust from boiler (except the dust from boiler stated in 10 01 04)	10 01 01	t	0,00	110.224,86	19.433,56	24.777,00	154.435,420	Ash and slag from coal
2.	Spent waxes and greases	12 01 12*	t	0,000	0,000	0,000	0,260	0,260	Waste grease
3.	Other hydraulic oils	13 07 03*	t	33,080	0,000	0,000	0,000	33,080	Waste sludge and fuel from tanks
4.			t	0,200	1,380	0,000	0,110	1,690	Waste heavy oil
5.	Other emulsions	13 08 02*	t	0,000	0,440	0,000	0,000	0,440	Waste emulsions (oil-water mixture)
6.	Other solvents and solvent mixtures	14 06 03*	t	0,600	0,100	0,000	0,000	0,700	Waste solvents and solvent mistures
7.		15 01 10*	t	0,020	0,200	0,000	0,000	0,220	Waste contaminated glass package
8.	Packaging with residue of hazardous substances or contaminated with		t	4,261	1,305	0,300	0,000	5,866	Waste contaminated PVC packaging from Chemicals
9.	nazardous substances		t	4,960	4,520	1,080	0,000	10,560	Waste metal packaging of oil and grease
10.			t	3,190	3,560	0,420	0,410	7,580	Waste mutton cloth
11.	Absorbent, filter materials, wiping cloths, protective clothing contaminated by	15 02 02*	t	0,520	0,400	0,000	0,670	1,590	Waste oil filters
12.	hazardous substances		t	6,960	4,460	0,200	0,510	12,130	Waste adsorption means with oil and heavy oil
13.	Nickle-cadmium batteries	16 06 02*	t	0,201	0,260	0,000	0,000	0,461	Ni - Cd batteries
14.	Wood	17 02 01	t	155,460	0.000	0.000	0,000	155,460	Waste wooden blocks



15.	Soil and rock containing hazardous substances	17 05 03*	t	0,000	0,000	5,560	0,000	5,560	Waste gravel from oil pits
16.	Soil and rock other than those mentioned in 17 05 03*	17 05 04	t	0,000	0,000	13,760	0,000	13,760	Waste gravel from oil pits
17.	Insulating materials other than those indicated under 17 06 01 and 17 06 03	17 06 04	t	311,800	57,860	50,900	3,920	424,480	Waste mineral rock wool
19.	Construction material containing aphenton	17.06.05*	t	0,000	0,000	0,000	2,060	2,060	Waste asbestos pipes
20.	Construction material containing aspestos	17 00 05	t	0,000	0,000	0,000	9,930	9,930	Waste asbestos plates
21.	Mixed construction and demolition waste other than those indicated under 17 09 01 and 17 09 02 and 17 09 03	17 09 04	t	28.542,180	1.543,860	0,000	0,000	30.086,040	Mixed construction waste
22.	Sludges from other industrial waste water treatments other than those in 190813	19 08 14	t	74,945	0,000	0,000	0,000	74,945	Sludge from industrial waste water treatment
23.	Saturated or spent ion-exchange resins	19 09 05	t	20,110	10,500	2,720	5,460	38,790	Waste ion mass
24.	Minerals (e.g. sand and rock)	19 12 09	t	0,000	0,000	185,000	0,000	185,000	Waste white sand
25.	Fluorescent tubes and other mercury-		t	0,800	0,580	0,080	0,000	1,460	Waste fluorescent pipes
26.	containing waste	20 01 21*	t	0,089	0,200	0,080	0,000	0,369	Waste mercury bulbs and thermometers
27.	Edible oils and fats	20 01 25	t	0,000	0,004	0,000	0,000	0,004	Commercial waste edible oils



3.3. Working Environment Monitoring, Safety and Health

Occupational Safety and Health Reports for 2018 include the following elements:

Working environment monitoring

-working environment noise measurements

Occupational Safety

- training
- work injuries
- Health

3.3.1. Working Environment Monitoring

Noise measurement in 2018

During 2018 there were no noise measurements in environment.

3.3.2. Occupational Safety

Training

Table 63 shows a number of employees to be trained and a number of trained employees in 2018.

					Table 63	
NIKOLA TESLA TPPs BRANCH						
Training in 2018						
Ormaniaational unit	Number of	Foreseen	for training	Trained		
Organisational unit	employees	No.	%	No.	%	
Joint services	270	178	65,93	163	91,57	
Nikola Tesla A TPP	588	588	100,00	588	100,00	
Nikola Tesla B TPP	292	265	90,75	209	78,87	
Kolubara TPP	350	310	88,57	216	69,68	
Morava TPP	124	110	88,71	21	19,09	
Railway transport	415	415	100,00	415	100,00	
TOTAL: NIKOLA TESLA TPPs Branch	2.039	1.866	91,52	1.612	86,39	

Work injuries

Table 64 gives data on a number of injuries at work in 2018.

NIKOLA TESLA TPPs BRANCH	NIKOLA TESLA TPPS BRANCH								
Work injuries in 2018									
Ormaniaatianal unit	Number of	Injuries – number of employees ratio							
Organisational unit	employees	Easy	Heavy	Fatal	Total	%			
Joint services	270	2	0	0	2	0,74			
Nikola Tesla A TPP	588	8	2	0	10	1,70			
Nikola Tesla B TPP	292	2	1	0	3	1,03			
Kolubara TPP	350	3	1	0	4	1,14			
Morava TPP	124	0	0	0	0	0,00			
Railway transport	415	3	1	0	4	0,96			
TOTAL: NIKOLA TESLA TPPs Branch	2.039	18	5	0	23	1,13			



3.3.3. Health

Medical examinations of employees working in high-risk workplaces is carried out once a year or once in two years in accordance with assessed risks.

Table 65 provides periodic examinations data verifying the work capability for 2018.

NIKOLA TESLA TPPs BRANCH												
Work capability in 2018												
		F	Periodical e	examinatio	ns			Work ca	apability			
Organisational unit	Number of employees	Refe exam	Referred to examination		Examined		Capable		Limited capability		Not capable	
		No.	%	No.	%	No.	%	No.	%	No.	%	
Joint services	270	102	37,78	102	100,00	95	93,14	6	5,88	1	0,98	
Nikola Tesla A TPP	588	538	91,50	535	99,44	469	87,66	52	9,72	14	2,62	
Nikola Tesla B TPP	292	236	80,82	236	100,00	216	91,53	19	8,05	1	0,42	
Kolubara TPP	350	219	62,57	203	92,69	184	90,64	16	7,88	3	1,48	
Morava TPP	124	117	94,35	117	100,00	97	82,91	18	15,38	2	1,70	
Railway transport	415	415	100,00	415	100,00	386	93,01	26	6,27	3	0,65	
TOTAL: NIKOLA TESLA TPPs BRANCH	2.039	1.627	79,79	1.608	98,83	1.447	89,99	137	8,52	24	1,49	

3.4. Public complaints

Public complaints are given in Table 66.

NIKOLA TESLA T	NIKOLA TESLA TPPS BRANCH											
Public complaints	in 2018											
Organisational unit	Complaint (number, date and by whom submitted)	Subject	Actions									
	On 19.07.2018 Head of Integrated Pollution department Aleksandar Blagojevic informed Goran Strugar, a technologist for emission control and emission devices control about emission from TENT stack.	Air pollution from stacks	Republic inspector was informed by e-mail that there was no shut offs of half of total ESP sections in TENT A and TENT B units(in operation)									
TPP NIKOLA TESLA A	On 24.09.2018 Head of the Environmental control and protection department Zoran Bajic was informed by the Environmental protection inspector Ljubinka Jovanic about public complaint on air pollution from TENT stacks in Obrenovac.		On 01.10.2018 office inspection surveillance was made in Environmental protection Secretariat of Belgrade City. A protocol was made and authority of the Republic environmental protection									
	10.10.2018 Zoran Bajic was informed by the Environmental protection inspector about the afore mentioned complaint. The inspector requested statements on circumstances for emission of black smoke from TENT A stack and reports on continous emission measurement and fuel consumption diagrams for all 6 units.	Air pollution from stacks	inspection determined. The requested reports were submitted to the inspector by e-mail on 10.10. and 12.10.2018. The circumstances for short shut off at ESP of unit A1 on 13.09.2018 and unit stoppage were explained.									
TPP NIKOLA TESLA B		No public co	mplaints									



	On 06.03.2018 a complaint by an unidentified person from Veliki Crljeni was filed to the Environmental Inspection Department.	Air pollution from Kolubara TPP 2 stacks	All the requested data- daily and monthly reports on the continuous measurements of air emissions were submitted by e-mail to the Environmental inspector for D2 for period 02.03.2018 to 06.03.2018 with explanation regarding start on and shutting down boilers K3, K4, K5. Thereafter, there was no further action by the inspector.
	On 08.05.2018, Center for Ecology and Sustainable Development (CEKOR) from Subotica sent a letter no. 48007-351-03-1065 to the Ministry for environmental protection and letter no. 21002-310-07-915/18 to the Ministry of Mining and Energy.	Air pollution from ash landfill	On 14.05.2018 Republic inspector for environmental protection carried out special surveillance on site and in office in TPP Kolubara and by the Protocol: 353-03-01065/2018-07 dated 16.05.2018 ordered to get installed sprinkle system at Cassette A for wetting and preventing of ash spreading from internal part of cassette A. TPP Kolubara A informed the inspector by letter: E03.04-297904/1-2018 dated 18.06.2018 that the requested action was fulfilled. Afterwards there were no further actions by the subject inspector.
	On 04.08.2017, complaint by Radisav Jovanovic from Veliki Crljeni to Secretariat for Inspections of Municipality of Belgrade.	Ambrosia extingiushing	Communal inspector of Lazarevac Municipality ordered arrangement of parcels with ambrosia grown up. Cutting of ambrosia was performed on parcels owned by TPP Kolubara on which the inspection was informed. Afterwards there were no further actions by the subject inspector.
KOLUBARA TPP	On 21.08.2018 complaint by Slavko Radovanovic from Veliki Crljeni to Republic Inspection for Environmental Protection.	Air pollution from stacks	On 21.08.2018 e-mail was sent to the republic inspector with explanation regarding starting and shutting down of units in TPP Kolubara in previous period, overhauls, total stoppage of all boilers of TPP Kolubara, poor coal quality etc Afterwards there were no further actions by the subject inspector.
	On 04.09.2018 complaint by unidentified person from Sokolovo to Republic Inspection for Environmental Protection.	Air pollution from Ash landfill	Republic inspector for environmental protection required by e-mail 04.09.2018 explanation regarding telephone complaint by a citizen, i.e. necessity of inspection surveilance. On the same day the inspector received answer by e-mail: there was storm wind last night lastin 15- 20minutes, thus ash arose and it could not be influenced. Although sprinkles were operating and there was a water mirror 50%, from a small part of cassette it is inevitable to have ash spread in case of strong wind. Afterwards there were no further actions by the subject inspector
	On 10.10.2018 Center for Ecology and Sustainable Development (CEKOR) from Subotica sent a letter no 48007 353-03-2226/18 to the Ministry for environmental protection. Vesna Terzic from Veliki Crljeni sent a letter no. 48007 353-03-2208/18	Pollution of groundwater and soil in vicinity of ash disposal	Republic inspector for environmental protection required in his regular surveilance on 11.10.2018 to get the written statement from TPP Kolubara about complaints. TPP Kolubara sent a letter no. 5073 E03.04516501/1-2018 on 19.10.2018 to Goran Stojanovic, inspector regarding complaints. Afterwards there were no further actions by the subject inspector



	On 22.10.2018 complaint by Radisav Jovanovic from Veliki Crljeni to Basic Court in Lazarevac.	Flooding of soil by earth drift from ash disposal	Judge of the Basic Court in Lazarevac brought a decision by which determined expert's report by agricultural expert with the aim to determine on site the harmful influence to agricultural production based on cadastre parcels: 2275/2, 2332 and 2561. It was determined that direct hafrmul consequences from flooding of parcel no. 2272/5, 2332 and 2561 reflected reduced harvest and quality of lucerne hay, total damage on these parcels makes up a sum of 51.679,00 RSD.			
MORAVA TPP		No public complaints				



4. KOSTOLAC TPPS & OCMS BRANCH

Kostolac TPPs & OCMs branch comprise the following organisational units:

- TPP Kostolac A
- TPP Kostolac B
- Drmno OCM
- Cirikovac OCM

4.1. Overview and Status of Permits

Table 67 provides overview of obtained permits and applications for new permits or extension of existing ones in 2018 – Kostolac TPPs and OCMs Branch".

Table 67

KOSTOLAC TPPs & OC Overview and status of	Ms BRANCH permits in 2018		
Organisational unit	Obtained permits and approvals (number and date)	Applications for new or extension of existing permits	Note
TPP KOSTOLAC A			
TPP KOSTOLAC B	BP 010 – acquired building permit number 351-02-00112/2017-07 dated 14.07.2017 for chemical water treatment BP 040 – acquired building permit no. 351- 02-00111/2017-07 dated 14.07.2017 for chimney BP 070 – acquired building permit no. 351- 02-00114/2018-07 dated 07.09.2018 for wet ESP. BP 020 – acquired building permit no. 351- 02-00156/2018-7 dated 10.10.2018 for cooling water pump station.	BP 061 – Application submitted on 21.11.2018 for building permit for FGD. Information on application rejection received 10.12.2018. Harmonized application submitted on 09.01.2019 and rejected 22.01.2019. CMEC received a request to prepare BP as soon as possible in order to submit Requirement for Building Permit from MCTI BP 062 – Application submitted on 30.11.2018 for building permit for Limestone preparation system. Decision from MCTI is expected soon	-

*PGD - Building Permit Design

4.2. Monitoring and Environmental Impact

4.2.1. Air Quality Measurements

Air quality monitoring in the vicinity of the Kostolac TPPs & OCMs Branch organisational units is carried out as part of the monitoring financed and organized by the relevant organizational units. It should be noted that the air quality monitoring is within the competence of the legislator; therefore air quality monitoring is carried out as part of the national automatic air quality monitoring network, comprising measuring points located around the Kostolac TPPs & OCMs Branch.

The national automatic air quality monitoring network also includes a measuring point in the Kostolac town centre. Depending on the measuring point forming the national network, SO₂, NO₂, NO, NO_x, CO and weather parameters (wind speed and direction, temperature, relative air humidity, atmospheric pressure) are measured.

Air quality measurements in the area of the Kostolac TPPs & OCMs Branch have been performed internally for over 30 years by the Environmental Department not authorised for total particulate matter and SO₂ measurements (Environmental Management Division Laboratory accreditation activities are in progress). Since 2008 air quality measurements in the area of the Kostolac TPPs & OCMs Branch have been performed by accredited laboratories.



During 2018, air quality measurements in the Kostolac TPPs & OCMs Branch area were performed by City Institute of Public Health, Belgrade (from January to April) and Pozarevac Public Health Institute (from April to December). Total particulate matter (TPM), sulphur oxides (SO₂), suspended particulate matter (PM₁₀), soot and heavy metals (Pb, Cd, As and Ni) were identified by analysing samples collected within one month for TPM, while SO₂ concentrations were determined by analysing 24-hour air samples.

TPM content was measured on 4 measuring points, as follows:

- 1. Klenovnik Klenovnik Local Community
- 2. Stari Kostolac Primary school
- 3. Drmno Medical centre
- 4. Cirikovac Cirikovac OCM

TPM content was measured on 4 measuring points, as follows:

- 1. Klenovnik Klenovnik Local Community
- 2. Stari Kostolac Primary school
- 3. Drmno Georad company
- 4. Cirikovac Cirikovac OCM

Suspended particulate matter - PM10 on the following measuring points:

- I. Cirikovac Cirikovac OCM administrative building
- II. Drmno Georad company
- III. Kostolac Prim company
- IV. Klenovnik Kostolac Usluge Klenovnik

Kostolac TPPs & OCMs Branch air quality report financed by the company analyses the monitoring data

Table 68 shows the 2018 air quality data analysis, in terms of their compliance with legal requirements, for Kostolac TPPs & OCMs Branch organisational units. Assessment of air quality compliance with legal regulations was done by comparing the measured values with the values prescribed by the Regulation on conditions for monitoring and air quality requirements (Official Gazette of RS, No. 11/2010, 75/2010 and 63/2013).

						Table 68
Kostolac	TPPs a	and OCMs Branch				
Air qualit	y in 20	18				
Legal cor	nplian	ce (number of data or days exceeding	ng the defined values)			
Air quality indicators Averaging period		TPM content (mg/m²/day)	Soot (µg/m³) SO ₂ concentration			(µg/m³)
		Maximum permissible value (MPV)	Maximum permissible	LV	Maximum permissible value	Maximum permissible concentration
		((MPV)	(MPC))
One ho	our	-	•	350	350	0
*One d	lay	-	50	125		-
**One m	onth	450		· · ·		
***Caler year	ndar r	200	50	50		-
		-	•		No measureme	ents
				1 day on m	easuring poing Kl	enovnik
*			No ovoodonoo	2 days on measuring point Drmno		rmno
		-	NU exceedance	1 day on measuring point Selo Kostolac		lo Kostolac
				2 days on measuring point Cirikovac		
**	1	May 577,8 mg/m2/day exceedance				
	2	No exceedance	-	IND EXCEPTION		
3		April over 454,3 mg/m2/day				



	4	No exceedance		
	1	No exceedance		
***	*** 2	No exceedance	No exceedance	No exceedance
	3	No exceedance		NO exceedance
	4	No exceedance		
Air quality indicators			Particulate matter PM ₁₀	(μg/m³)
Averaging period		LV	TV	LT
*One	day	50	50	0
***Cale	ndar	40	48	0
year		40	48	U
	Ι	16 days out of 119 days	16 days out of 119 days	
*		14 days out of 106 days	14 days out of 106 days	
	III	5 days out of 35 days	5 days out of 35 days	
	IV	11 days out of 122 days	11 days out of 122 days	

LV – limit value; TV – tolerance value; LT – limit tolerance

4.2.2. Emission Measurements of Matters Affecting Air Quality

Total sulphur content of the Kostolac lignite used for combustion in the Kostolac TPPs and OCMs Branch is around 1.3%.

Flue gases containing sulphur dioxide, nitrogen oxides, carbon dioxide and dust, after treatment, i.e. dust separation by electrostatic precipitators are emitted into the air over stacks:

Kostolac A TPP

- 105m Unit A1 (K1 (1 ESP) and K2 (1 ESP))
- 110m Unit A2 (1 ESP)

Kostolac B TPP

- 250m Units B1 (1 ESP) and B2 (1 ESP)
- 180 m after construction of FGD plant for units B1 and B2 (each boiler has its own flue gas pipe)

In accordance with legal requirements individual measurements of pollutants air emissions are performed regularly and continuous measurements are also performed on all Kostolac TPPs and OCMs Branch units.

Individual emissions measurements of matters affecting air quality

During 2018, emission measurements of matters affecting air quality were carried out occasionally on the Kostolac A2 TPP, Kostolac B1 TPP and Kostolac B2 TPP units. The Monitoring Programme included flue gas conditions measurement (temperature, pressure and humidity), flow rate, oxygen content and mass concentrations, as well as emission factors for sulphur dioxide (SO₂), nitrogen oxides (NO_x (NO₂)), carbon monoxide (CO), chlorine compounds (HCI) fluorine compounds (HF) and dust. In addition, technical and elementary coal analysis as well as ash chemical analysis were conducted at the same time. QAL 2 and QAL 3 were performed on units B1 and B2.

Table 69 provides an overview of dust emission measurements in 2018.



				l able 69	
Kostolac TPPs and OCMs Branch	Kostolac TPPs and OCMs Branch				
Dust emission measurements in 2018	Dust emission measurements in 2018				
Kostolac B1 and B2 TPP					
Particulate mottors (mg/Nm2)	TEKO B1	42,3	43,2	41,4	
Particulate matters (mg/Nm3)	TEKO B2	75,5	73,6	74,5	

Table 70 gives overview of individual measurements of emissions affecting air quality for TPPs and OCMs Kostolac Branch, TPP Kostolac A (only for A2 because for A1 individual measurement was not taken) and TPP Kostolac B for 2018.

				Table 70
Kostolac TPPs and OCMs	Branch			
Individual Air Pollutants E	mission Measureme	nts for 2018		
Mass concentrations of pe	ollutants (mg/Nm ³)			
Organisational unit	Kost	olac A TPP	Kostolac B TPP	
Heat capacity MWt	A1	A2	Б1	Б2
Boiler	358	689	1.077,5	1.077,5
SO ₂	-	4.053	5.147	5.178
NO _x (NO ₂)	-	443	227	523
CO	-	27	161	40
Particulate matters	-	54	42	75

NOTE: pursuant to the Regulation stipulating air pollutants emission limit values from combustion plants (Official Gazette of RS, No. 6/16), as per the Article 5 they do not need to comply with individual ELV if covered by preliminary application for National plan for reduction of emissions from stationary large combustion plants as of the day of effectiveness of the mentioned regulation.

Pursuant to the Regulation on Limit Values of Emissions of Pollutants in the Air from Combustion Plants (Official Gazette of RS, No. 6/16), Article 37 stipulates that for facilities covered by Art. 6 and 8 of this Regulation, the operator is obliged to ensure the smooth operation of the existing emission reduction device, or to ensure that the emissions from the combustion plant are less or equal than the ELV from the contract on the last reconstruction of the existing emission reduction device, that is, from the contract for the construction of this device in the event that its reconstruction has not been carried out, within the period from the date of entry into force of this Regulation until the expiration of the deadlines referred to in Art. 6 and 8 of this Regulation.

• Continuous emissions measurements of matters affecting air quality

Between 2006 and 2014, at the Kostolac TPPs and OCMs Branch, devices for continuous measurement of matters affecting air quality (SO2, NOx, CO and dust) were installed– at Kostolac B TPP units (SO₂, NO_x and dust) and TPP Kostolac A2 unit, while at TPP Kostolac A1, continuous measurements (SO₂, NO_x, CO and dust) have been performed since 2nd February 2018. In addition to these basic devices, data acquisition and processing equipment was also installed and additional measurement devices: oxygen (O₂) content and humidity as well as temperature, pressure and flue gases flow volume.

Kostolac A TPP

During the 2015 overhaul, flue gas flow measurement was installed, together with the wet O2 measurement, while the damaged dust emission measurement device was replaced. In addition, a new measurement data acquisition and reporting (daily, monthly and annual level) software was installed in cooperation with the Mihajlo Pupin Institute.

Procurement for 2016 made a selection of contractors for certification of the whole system according to QAL 2 and QAL 3 procedure. In 2017 some measurements of QAL 2 and QAL 3 were performed and on 2nd February 2018 the approval from the Minstry for individual emission measurements from stationary sources of TPP A1. In 2018 the Mining Institute performed QAL2. Until now calibration has not been performed for CO at unit A2 because automatic gauge was returned to the equipment supplier due to operation problems and the company



will not apply for approval on this measurement. The application was submitted to the Ministry in 2018 for approval on individual emission measurement from stationary resources of unit TEKO A2.

Kostolac B TPP

Kostolac B TPP comprises two identical units, each of 348.5 MW. Each unit has its own electrostatic precipitator with two branches. Continuous emission measurement devices for SO₂, NOX, CO and dust, as well as O₂ content and flue gas flow rate were installed on the flue duct behind the electrostatic precipitator, before ID fan.

New equipment for flue gas and dust emissions measurement has been installed in newly constructed desulphurization plant in Kostolac B (B1 and B2) TPP units downstream of stack desulphurization plant. Trial run of the plant was performed in the first quarter of 2017. After the trial run, performance measurements were done. After the performance measurements, QAL 2 and QAL 3 measurements were performed at TEKO B1 and B2 unit. After obtaining of the results in 2018, the request for continuous measurements approval is be submitted to the Ministry of Agriculture and Environmental Protection on 23rd May 2018.

Table 71 summarises the results of guarantee measurements at units TEKO B1 and TEKO B2 done during 2017.

			Table 71
Kostolac TPPs and OCMs Branch			
Guarantee measurements for FGD plant	for 2017		
Organisational part	TEKO B1	TEKO B2	ELV (mg/Nm ³)
	66	163	
	65	149	
	37	153	
SO ₂	30	125	200
	71	192	
	64	157	
		111	
	12	21	
F	11	23	
	10	23	
Particulate matters	11	28	30
	11	27	
F	10	25	
		20	
Mist content	24	78	100
	11	14	
F	12	14	
	12	11	
Limestone consumption	12	12	19 t/h
· · · · · · · · · · · · · · · · · · ·	13	11	
F	12	12	
F		12	

Table 72 summarises the data related to the unit equipped with the equipment for continuous measuring of air emission in organizational units of Kostolac TPPs & OCMs Branch, as of 2018.



Kosto	Kostolac TPPs & OCMs Branch								
Level	of unit be	eing equipped with device	s for continuous	emission	measureme	ent endi	ng in 2018		
			Emitted mat	ters	Parameters			rs	
			Gases		Content		t		
Anal	Analysers Particulate matters		SO ₂ , NO _x (NO ₂), CO; particulate matters	HCI и HF	Humidity	CO2	O ₂ p and t		Flow rate
IC A	A1	Devices installed on the unit A1 stack, 4 parameters monitored Stack height is 105 m. Platform is located at the level 60 m.	Devices installed for both boilers on the stack	-	-	-	Devices ins both boiler stac	talled for s on the k	Measuring exists
TPP KOSTOLA	A2	A2: ESP left and right side (branch), on the stack, at the level of 63 m, external stack lining. Platform is located on the level of around 61m. Stack height – 110m. Total: 3 measuring devices	One measuring device installed (except for CO)	-	-	-	Devices ins the sta Total: 1 In 2015, measure devices in including flow rate stac	stalled on ack, device wet O2 ement istalled, flue gas on the ck	Measuring of this unit exists
ILAC B	B1	Devices installed on each unit on flue gas ducts behind each ESP,	Devices installed on	-	-	-	Measuring devices installed on each unit after ESP, before ID fan. Total: 2 sets		2 measuring
TPP KOSTO	B2	before (IDF). Total:2 devices B1: ESP1 and B2: ESP2	each unit after ESP, before ID fan. Total: 2 sets	-	-	-			devices on each of the units
LAC B	B1	Devices installed after desulphurization plant (new stack height 180 m) Fach unit has its	Devices	-	-	-	Devices inc	talled on	Devices
TPP KOSTO	B2 B2 B2 B2 B2 B2 B2 B2 B2 B2 B2 B2 B2 B		installed on each flue gas pipe	-	-	-	each flue ((2 se	gas pipe ts)	installed on each flue gas pipe

Data acquisition and processing equipment is an integral part of this equipment.

HF and HCI continuous measurement equipment has not been installed on any of the Kostolac TPP units.

Software performing statistical analysis of continuous measurements data (SO2, NOx (NO2), CO and dust) is in operation on Kostolac A and Kostolac B TPP units. New flue gas and dust emission monitoring equipment has been installed (on the stack) after the FGD plant and new data processing software package has been installed, as well.

Continuous measurements will allow the use of the Gaussian Distribution Model to monitor the transport of pollutants in space and time. Integrated system will enable the systematic monitoring of Kostolac TPP air quality impacts, objective and timely notification of the public on air quality in the surrounding area, which is a prerequisite for taking appropriate mitigation measures.



Annual emissions of matters affecting air quality

Table 73 gives overview of dust emission, SO₂, NO₂, CO for TPP Kostolac in 2018. In unit A1 mean values of mass concentration and volume flow are calculated on the base of received results from continuous emission measurements in period between 1st January and 31st December .2018. Data on operating hours were taken from the Process Analysis Department. In unit B2 mean values of mass concentration and volume flow was calculated on the base of data received on corectness inspection of AMS acc.to SRPS EN 14181 (report on inspection no. E-20/18/JPEPS/TEKO-A2/QAL2 dated 09.08.2018) and periodical measurements of emission affecting air quality (report on inspection no. E-12/18/JPEPS/TEKO-A2 dated 05.06.2018). Data on operating hours were taken from the Process Analysis Department. In units B1 and B2 mean values of mass concentration and volume flow were calculated based on periodic air pollutant emissions (inspection report by Vinca). Data on operating hours were taken from the Process Analysis Department.

Kostolac TPPs and OCMs Branch							
Emissions of matters affecting air quality (t/year) in 2018							
Organisational unit	Particulate matters	Particulate matters SO ₂ NO _x (NO ₂) CO					
TPP Kostolac A							
A1	263	17.599	1.399	353,5	813.046,81		
A2	352	26.316	2.878	175,3	1.692.190,38		
Total: Kostolac A	615	43.915	4.277	528,8	2.505.237,19		
	TP	P Kostolac B					
Б1	495	60.204	2.653	1883,1	2.491.088,86		
Б2	773	53.709	5.424	411,8	2.379.287,80		
Total: Kostolac B	1.268	113.913	8.077	2294,9	4.870.376,66		
TOTAL: Kostolac TPPs and OCMs Branch	1.883	157.828	12.354	2.823,7	7.375.613,85		

Table 74 gives fuel consumption in 2018.

Kostolac TPPs and OCMs Branch		
Fuel consumption in 2018		
Fuel	Unit	Fuel conusmption (t/year)
	KOSTOLAC A TPP	
	A1 - K1	-
	A1 - K2	-
COAL	A1	926.658
	A2	1.934.953
	TOTAL	2.861.611
	A1 - K1	-
	A1 - K2	-
OIL	A1	1.005
	A2	686
	TOTAL	1.691
	KOSTOLAC B TPP	
	Б1	2.807.800
COAL	Б2	2.682.130
	TOTAL	5.489.930
	Б1	3.016
HEAVY FUEL OIL	Б2	2.135
	TOTAL	5.151

Table 74



• Harmonisation emissions of matters affecting air qulity with EU legislation

Units B1 and B2 of TPP Kostolac are on the final list of old big plants for combustion in National plan for emission reduction acc.to the letter of the Enivronmental Protection Ministry no. 353-01-00122/2017-03 dated 29.12.2017.

Particulate matters

To date electrostatic precipitators were reconstructed on all Kostolac TPP units: on units A1 and A2 - Kostolac A TPP, units B1 and B2 - Kostolac B TPP. Guaranteed mass concentration for dust defined by the equipment supplier at the electrostatic precipitator outlet is ≤50mg/Nm3 which is in line with the EU and Serbian legislation

Continuous emission of substances which affect the air quality in 2018 show that there is no mass concentration of dust at the outlet of EFP in comparison to supplier's guarantee, at unit A1 TPP Kostolac. By individual measurement on unit A2 TPP Kostolac, there is a negligible excedance of dust mass concentration in comparison to the supplier's guarantees.

Sulphur dioxide

During the design and construction of Kostolac A and B TPP, no measures were taken to reduce SO₂ emissions, given that at the time no SO₂ emission limit values (ELVs) were stipulated.

Mass concentration of SO₂ in the flue gas are well above ELVs prescribed by Serbian and EU regulations. In order to reduce sulphur oxide emissions below 200mg/Nm³ in accordance with EU legislation desulphurization plant construction was finished at the end of December 2016, as well as new stack with two pipes (each unit, B1 and B2, has its own pipe). Test run was completed in March and April 2017. Guarantee measurements were executed during operation of each unit separately and during simultaneous operation of units. Results of guarantee measurements are given in the Table 71

Nitrogen oxides

New burners were installed on unit B1 – Kostolac B TPP during unit revitalisation in 2014 to reduce nitrogen oxides emissions below the level of 200mg/Nm³. Measurement results indicate considerable nitrogen oxides emission reduction. Emissions prior to reconstruction ranged from 450 to 600 mg/Nm³, while after burner reconstruction in 2018 these were 226.8 mg/Nm³.

According to plans, the above measures should be implemented on unit B2 (during major overhaul in 2019) and on units A1 and A2 – Kostolac A TPP.

4.2.3. Emission Measurements of Matters Affecting Water Quality

Water used to cool condensers steam has the highest share in process water used by Kostolac TPPs. Water used for this process is captured from the Danube River. To be precise, the captured river water is first used to cool the condensers and subsequently discharged into the recipient (Danube - Kostolac A or Mlava - Kostolac B) via the return channel.

A small share, about 2.5% of water is used for hydraulic transport of ash and slag. By replacing, i.e. connecting the Kostolac B TPP units to the thick slurry transport system (solids: water ratio - 1:1) water consumption will be reduced. Wastewater from the hydraulic transport of ash and slag is in the form of overflow and drainage water discharged into the recipient, in the case of old technology – thin slurry transport of ash and water (1:10), in operation at Kostolac A TPP. Under the thick slurry transportation system in place at the Kostolac B TPP there is no overflow water, while the created drainage water is recycled (returned) from the ash landfill to the thermal power plant and reused for hydraulic transport of ash and slag.

Decarbonised water of the Kostolac A TPP is partly used for cooling while the other part is treated with ion exchangers (ion mass) to obtain demineralised water.

Demineralised water (demi water) used by the boiler water-vapour system is produced by chemical water treatment plants. Demi water is produced by chemical purification of groundwater - Kostolac B TPP or by purification of river water (Danube) - Kostolac A TPP in ion exchangers. Raw water is captured from tube wells



located along the Mlava River bank. HCl or NaOH solution is used to regenerate ion masses in ion-exchange columns, resulting in acid and alkaline wastewater partly used by the ash and slag transportation system of Kostolac B TPP, while in the case of Kostolac A TPP regeneration products are discharged into the return cooling water channel (hot water channel).

Sanitary wastewater is discharged directly or indirectly into the river (Mlava) after mechanical-biological treatment under aerobic conditions by treatment devices (Kostolac B TPP). Sanitary wastewater of Kostolac A TPP is discharged into the municipal sewage subsequently discharged into the Kostolac A TPP hot water channel.

After water containing oil and/or heavy fuel oil and/or petroleum is collected only water containing petroleum is pumped back into the tank. Wastewater is discharged through storm sewage into the Kostolac A TPP hot water channel while waters containing heavy fuel oil are transported to the slurry station and subsequently to the OCM Cirikovac ash landfill.

The Kostolac OCMs and TPPs Branch Wastewater Management Programme includes physical, chemical, bacteriological and radiological measurements of the following parameters: air and water temperature, water turbidity, pH, electrical conductivity, soluble O₂, % of O₂ saturation, COD, BOD₅, unfiltered water evaporation residue, filtered water evaporation residue, total suspended particulate matter, particulate matter, total surfactants, mineral oils, phenols, alkalinity, F, Cl, NO₂, NO₃, SO₄, PO₄, NH₄, Ca, Mg, hardness, Al, Fe, Mn, Cd, Cr⁶⁺, total Cr, Cu, Ni, Zn, Pb, Hg, As, B, α and β activity, microbiological analysis.

Monitoring also includes:

- Wastewater at the source and/or at the point of discharge into the river and/or at the point of discharge of hot water into the channel;
- River water water recipient on profiles upstream and downstream of wastewater discharge;
- Groundwater around the ash and slag landfill SKO and OCM Cirikovac, at coal landfill Kostolac B TPP, around the oil tanks at TEA and around gas station at OCM Drmno.

Long-term studies have shown that concentrations of sulphate and arsenic are essential parameters used to monitor the groundwater impact of ash. Sulphate ions originating from the landfill migrates fastest, and is considered to be an excellent tracer to monitor the groundwater impact of landfills. On the other hand, arsenic reaches groundwater much slower because it is previously adsorbed by the aluminosilicate surface (landfill ash and/or clay making an integral part of the soil). Drmno OCM dewatering water quality is also monitored. Drmno OCM dewatering water is discharged to the Mlava and/or Danube rivers, and partly used as cooling water by the Kostolac B TPP.

Kostolac OCMs and TPPs wastewater quality and its impact on surface and groundwater is controlled 12 times a year – surface water and 4 times a year – groundwater and sanitary water.

Annual surface and ground water quality reports for each organizational unit of the Kostolac OCMs and TPPs Branch are made available to competent inspectors and relevant institutions when providing opinions required for the issuing of water conditions and water permits.

Water quality measurement results are presented in the Environmental Report prepared every year for each organisational unit. In addition, results are presented in the National Pollution Sources Register of Serbia sent by the Kostolac OCMs and TPPs Branch each year in accordance with the legal obligations to the Ministry of Agriculture and Environment, i.e. to the Environmental Protection Agency.

Kostolac OCMs and TPPs Branch surface and ground water quality was controlled in 2018 by the accredited laboratory for chemical testing at the Mining and Metallurgy Institute Bor.

Table 75 provides the analysis of wastewater and recipient watercourse quality data in 2018 in terms of their legal compliance.

In the case of surface waters, legal compliance is evaluated by comparing the measured values of hazardous and harmful substances with the limits defined by the Regulation stipulating limit values for pollutants in surface



and ground waters and sediments, and deadlines for their achievement (OG RS № 50/2012) while wastewater values are compared with the limits defined by the Regulation stipulating limit values of pollutants in water and deadlines for their achievement (OG RS № 67/2011, 48/2012 and 1/2016).

Table 75

Kostolac TPPs &	Kostolac TPPs & OCMs Branch						
Wastewater and watercourses-recipients quality in 2018							
Organisational unit	Kostolac A TPP	Kostolac B TPP					
Water type							
Drainage wastewater from the ash Iandfill	 Electrical conductivity: 510 – 899 μs/cm Arsenic: 13-24 μg/l Sulphates: 310,0 – 630,90 mg/l 						
Overflow wastewater from the ash landfill	 Electrical conductivity: 414– 855 μs/cm Arsenic: 13 – 42 μg/l Sulphates: 67,7 – 386,0 mg/l 						
Watercourse (recipient)	 There were no significant changes in the Danube River quality upstream – downstream from Kostolac A TPP: Arsenic: <20 µg/l, below MPC-50µg/l, upstream and downstream from the discharge point Sulphates: 8,80-36,9 mg/l upstream and 8,70 – 53,4 mg/l downstream Mineral oil, at testing points upstream and downstream < 50µg/l No temperature increase of the Danube River water 	There were no significant changes in the Mlava River quality downstream - upstream from Kostolac B TPP: •arsenic: <20- 80 μg/l, upstream and <20-62 μg/l downstream from the discharge point •sulphates: 28 – 50,5 mg/l,, upstream and 22,15 – 45,20 mg/l downstream Mineral oil in the Mlava River upstream and downstream was < 50 μg/l Mlava River water temperature increase downstream was within 5°C.					

Table 76 provides the analysis of groundwater quality data in piezometers at the locations of Kostolac TPPs and OCMs Branch. During 2018, groundwater quality was controlled in 14 piezometers.

Kostolac TPPs and OCMs Branch				
Groundwater quality in	n 2018			
Concentration	Permittee	d values	Organisational unit	
Concentration	MPC	RV	TPP Kostolac A and TPP Kostolac B	
Sulphates (mg/l)	250		Variable in piezometers around cassette B ranging from 218,4– 520,0 in piezometers around the cassette C ranging from 267,4 – 904,0 in piezometers around the Cirikovac ash landfill: 11,58-370,0 piezometers away from the SKO landfill: 125,8-530,0 around the coal yard D5: 25,0-28,45 piezometers around oil tanks TPP A - 14,5-196,6 piezometers around gas station OCM Drmno -48,0-571,5	
Arsenic (µg/l)	10	60	in piezometers around cassette B ranging from: 3,8-18 in piezometers around the cassette C ranging from:<2,1-150,0 in piezometers around the Cirikovac ash landfill: <2,1 – 5 piezometers away from the SKO landfill: <2,1 – 6 around the coal yard D5: <2,1 piezometers around oil tanks TPP A -< 2,1-2,9 piezometers around gas station OCM Drmno - <2,1	



Zink (mg/l)	3.000	800	in piezometers around cassette B ranging from: < 1,6-130 in piezometers around the cassette C ranging from: 2,1-530,0 in piezometers around the Cirikovac ash landfill: 5– 9700,0 piezometers away from the SKO landfill: <5 – 13800,0 around the coal yard D5: 1-338 piezometers around oil tanks TPP A – 2,1-29,0 piezometers around gas station OCM Drmno – 13,0-19,0
Manganese (mg/l)	50		in piezometers around cassette B ranging from: < 1,6-130 in piezometers around the cassette C ranging from: < 1,6-69 in piezometers around the Cirikovac ash landfill: < 1,6 – 895 piezometers away from the SKO landfill: - 10- 1270 around the coal yard D5: 0,15–2,81 piezometers around oil tanks TPP A - 25,0-146 000 piezometers around gas station OCM Drmno - 1,6-13,3
Ammonia (mg/l)	0.1		in piezometers around cassette B ranging from: < 0,12-0,47 in piezometers around the cassette C ranging from < 0.03 – 0,37 in piezometers around the Cirikovac ash landfill: < 0,1– 1,35 piezometers away from the SKO landfill: <0,08-0,44 around the coal yard D5: <0.020-0,43 piezometers around oil tanks TPP A - 25,0-146 000 piezometers around gas station OCM Drmno - 1,6-13,3
Nitrites (mg/l)	0.03		In all piezometers the most common value was $< 0.002 \text{ mg/l}$; except one value from piezometer in Cirikovac $< 0.002 - 0.34$
Nitrates (mg/l)	0.05		in piezometers around cassette B ranging from: < $0,10 - 1,97$ in piezometers around the cassette C ranging from < $0,1-0,5$ in piezometers around the Cirikovac ash landfill < $0,1-26,49$ piezometers away from the SKO landfill: $0,1 - 2,09$ around the coal yard D5: $0,1-0,3$ piezometers around oil tanks TPP A - $0,1-21,08$ piezometers around gas station OCM Drmno - $0,6-36,84$
Copper (µg/l)	2000	75	in piezometers around cassette B ranging from: :<3,3 - 60 in piezometers around the cassette C ranging from :<3,3-60 in piezometers around the Cirikovac ash landfill :<3,3-4,9 piezometers away from the SKO landfill: <3,3-60 around the coal yard D5: <3,3-60 piezometers around oil tanks TPP A - < 3,3 piezometers around gas station OCM Drmno- 3,3-60
Cadmium (µg/l)	3	6	in piezometers around cassette B ranging from: : 0,1-0,14 in piezometers around the cassette C ranging from: 0,14-0,35 in piezometers around the Cirikovac ash landfill : 0,1-0,7 piezometers away from the SKO landfill: 0,1-0,14 around the coal yard D5: <0,14 piezometers around oil tanks TPP A – < 3,3 piezometers around gas station OCM Drmno - <0,14
Lead (µg/l)	10	75	in piezometers around cassette B ranging from :<2,1 in piezometers around the cassette C ranging from :<2,1 in piezometers around the Cirikovac ash landfill : 0,1-0,7 piezometers away from the SKO landfill: <2,1-3 around the coal yard D5: <2,1 piezometers around oil tanks TPP A – <2,1 piezometers around gas station OCM Drmno :<2,1
Mercury (µg/l)	1	0,3	in piezometers around cassette B ranging from : < 0,5 in piezometers around the cassette C ranging from : < 0,5 in piezometers around the Cirikovac ash landfill : < 0,5 piezometers away from the SKO landfill: < 0,5 around the coal yard D5: < 0,5 piezometers around oil tanks TPP A - < 0,5 piezometers around gas station OCM Drmno - < 0,5



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Mineral oil (µg/l)	600	in piezometers around cassette B ranging from : <500-640 in piezometers around the cassette C ranging from : <500 in piezometers around the Cirikovac ash landfill : <500 piezometers away from the SKO landfill: <500 around the coal yard D5: <500 piezometers around oil tanks TPP A – <500 piezometers around gas station OCM Drmno - <500
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MPC – drinking water;

RV - Remediation values of hazardous and harmful substances concentration and values indicating severe groundwater contamination.

Legal compliance is evaluated by comparing the groundwater measured values of hazardous and harmful substances concentration from piezometers, remediation values of hazardous and harmful substances concentration and values indicating severe groundwater contamination in line with the Regulation defining the soil quality systematic monitoring programme, indicators used to assess soil degradation risks and remediation programme development methodology (OG RS № 88/2010).

Table 77 provides analysis of data related to sanitary waste water quality at the inlet and outlet of the plant for treatment (BIODISK) for 2018.

Id					
Kostolac TPPs and OCMs Branch					
Sanitary wastewater treatment plant operation in 2018					
Pollutants concentration (mg/l)	BIODISK plant Kostolac B TPP				
	Suspend	led solids (mg/l)			
Plant inlet	6,0-100,4				
Plant outlet	4,0 – 54				
	5-day biological	oxygen demand (BOD₅)			
Plant inlet	8,0-55,0				
Plant outlet	4,0-58,0				
Operation efficiency evaluation		Meeting guaranteed values for suspended solids for all measurements			

Emission limit value according to the facility capacity, based on the Regulation on Emission Limit Values of Pollutants in Water, do not exceed allowable limits. (ELV for biological oxygen consumption is 50mg/l and total suspended matter 75mg/l).

According to the instructions provided by the manufacturer, the primary sedimentation tanks should be emptied once a year, while all devices should be regularly maintained and overhauled.

Water amounts

Table 78 provides an overview of water amounts captured and discharged by the organizational units of Kostolac OCMs and TPPs Branch for 2018.



Kostolac TPPs and OCMs Branch					
Water amounts in 2018 (m ³ /year x10 ³)					
	Water intake		Discharged wastewater		
Organisational unit	Used amounts		Return cooling	Overflow and drainage water	Sanitary
	Surface	Ground*	water	from the ash landfill	wastewater
KOSTOLAC A TPP	389 934	0	375 829	12 500	45

		-			
KOSTOLAC B TPP	735.475	771	703.728	7.500	197
TOTAL: Kostolac OCMs and TPPs Branch	1.125.409	771	1.079.557	20.000	242
*for the purposes of technical and potable water preparation					

For the purposes of hydromixture transportation from TPP-OCM A and TPP-OCM B to Cirikovac ash landfill, part of return cooling water is used and returned by recirculation.

Annual amount is calculated on the basis of data on the capacity and water capture and discharge pumps operating time. In cases of gravitational wastewater discharge calculations are made on the basis of previously measured wastewater amounts.

Improvements aimed at reducing wastewater impacts on surface and groundwater

A new ash and slag handling system on the Kostolac A TPP was put in operation during 2018. Upon system commissioning, new system performances were under proof.

Ash and slag were disposed to the Srednie Kostolacko Ostrvo landfill. Commissioning of the new system (thick slurry transportation) Kostolac A TPP moved to ash and slag disposal to ash and slag landfill of Cirikovac OCM. The Srednje Kostolacko Ostrvo landfill serves as back-up until the phase of its shutdown.

Kostolac B TPP units were connected to the new thick slurry transportation and disposal system. Ash and slag are disposed to the Cirikovac OCM. Thick slurry transortation system is of criculation type, because water serves to transport ash and slurry and circulates the system.

During 2018, in the course of operation of the new flue gas desulforisation facility, before its mixing with other wastewaters, a corntrol was performed on wastewater of this facility in accordance with the Regulation about limits for wastewater from FGD system. A temporary solution for the discharge of this wastewater is into ash slurry pumping station until the construction of wastewater treatment facility.

In December 2018 a new Public Procurement Open Procedure was initiated for the Development of the Conceptual Design for Kostolac A Wastewater Treatment Facility, Feasibility Study with Basic Design as well as Environment Impact Assessment Study.

During 2017 FIDIC Engineer was selected (p2m Berlin GmbH in consortium with EHTING d.o.o Serbia) and Contractor for works (SADE COMPAGNIE) who signed the Contracts for the project "Construction of industrial waste water treatment plant at Kostolac B TPP - IPA 2013". In the forthcoming period the selected Contractor shall prepare the design documentation for obtaining of the building permit (Design for building permit), for construction of the plant and performance of works (Construction Design), as well as prepare the As-Built Design for the purpose of obtaining the use permit for using and maintenance of facility. Revision Committee for Expert Control of Technical Documentation for Feasability Study and Conceptual Design of the TPP Kostolac B Wastewater Treatment Facility has approved the technical documentation.

Commencement of works on the construction of the facility is planned for March 2019



4.2.4. Emission Measurements of Matters Affecting Soil Quality

During 2018, testing of soil quality and content of the total and available forms of heavy metal pollutants in soil were carried out, as well as the chemical composition control in the vicinity of the Kostolac thermal power plants aimed at monitoring the ash and slag landfill impact. Kostolac TPPs and OCMs Branch monitors the content of pollutants in soil every two years.

Annual reports about the ash and slag landfill impacts on soil are made available to inspection upon request. Soil quality measurement results are presented in the environmental report for the relevant year for each organizational unit. They are also presented in the National Cadastre of Polluters of the Republic of Serbia, delivered by JP EPS each year in accordance with the legal obligation to the Environmental Protection Agency

Sampling and testing was carried out in 2018 by the company *Occupational Safety and Environmental Protection Belgrade* for the Kostolac TPPs and OCMs Branch. Testing includes the following characteristics: physical soil properties, chemical soil properties, soil reaction, humus content, total nitrogen and organic carbon content, nitrate and nitrite ions content, available phosphorus and potassium content, content of heavy metals and other toxic elements.

Soil control program covered: field and laboratory measurements on representative measuring points shown on the topographic map (GPS identified points), allowing the monitoring of parameter changes on these measuring points in the future. Testing is carried out 2 times a year. Measuring points are defined depending on the distance from the landfill.

- landfill (ash)
- inside the impact zone as follows: Zone 1 up to 1km from the landfill, Zone 2 from 1km to 3km from the landfill and Zone 3 from 3km to 5km from landfill
- outside the landfill zone (checkpoints).

Based on the results obtained from soil analysis with sampling according to sampling plan during vegetative period (April) and non-vegetative period (November) at the Kostolac TPPs and OCMs Branch location, at 71 measuring points of sampling depth of 0 - 30 cm, 7 measuring points of sampling depth of 30 - 60 cm and 2 measuring points of sampling depth of 0 - 50 cm, the conclusion is as follows:

- Soil acidity of samples ranged between 4,7 and 8,8 in H2O and between 4,4 and 8,5 in KCI. Soil was found very acidic in only 1% of samples, slightly acidic in 7% of samples ,neutral in 12% of samples , slightly alkaline in 78% of samples and alkaline in 2% of total samples (156).
- Humus content in the samples ranged between 0,26% and 13,48%. The largest number of samples was low in humus content 49% (1,01-3,00%), soil of humus content (3,01-5,0%) was found in 35% of samples, soil high of humus content (5,01-10,00) was found in 7% of samples, soil very low in humus content (0,00-1,00%) was found in 7% of samples and soil very high in humus content was found in 2% of total number of samples (156).
- Total nirogen content in samples ranged between 0,05% and 0,55%.
- Organic carbon compounds in soil samples ranged between 0,3% and 7,82%.
- Nitrite ion NO_2^- content in samples ranged between 0,4 mg/kg and 58,1 mg/kg.
- Nitrite ion NO₃⁻ content in samples ranged between 0,4 mg/kg and 483,0 mg/kg.
- The amoung of readily available phosphorus in samples ranged between 2,12 mg/kg and 667,9 mg/kg. Out of total number of samples (156), 22 samples could be classified as very low in phosphorus content, 28 samples could be classified as low in phosphorus content, 23 samples were optimal in phosphorus content, 24 samples were high, 6 samples were very high in phosphorus content, and in 25 samples phosphorus content could be classified as harmful.
- Readily available content of potassium in tested samples ranged between 12,06 and 142,87. The largest number of samples was very high in potassium content 34%, the optimal content of this element was found in 26%, harmful in 24%, very high in 13% and medium content of potassium was found in 3% of total samples (156).



- In tested soil samples, the content of iron ranged between 0,01% and 5,0%. The total concentration of iron in soil was normal and of geochemical origin.

The coments related to obtained results are based on maximum allowed concentrations in soil perscribed by the Regulation identifying the permitted amounts of hazardous and harmful substances in soil and irrigation water and their testing methods (OG RS № 23/94), Article 2 and limit and remediation values of hazardous and harmful substance concetration perscribed by the Regulation establishing a program of systematic monitoring of soil quality indicators needed to assess the soil degradation risks and remediation programs development methodology (OG RS № 88/2010), Annex 3 and Regulation identifying limit values of polluting, harmful and hazardous substances in soil (OG RS № 30/2018), Annex 1, Limit, maximal and remediation values of polluting, harmful and hazardous substances in soil.

Table 79 shows measurement results evaluation in accordance with the aforementioned regulations.

KOSTOLAC TPPs and OCMs BRANCH					
Content of hazardous and harmful substances in soil in 2018					
Matter (mg/kg)	MPC	۲۸	RV	Content of substances in soil in Kostolac TPPs and OCMs Branch	
	mg/kg		9		
Chromium (Cr)	100	100	380	Chromium content in tested samples ranged between 18,9 mg/kg and 170,6 mg/kg. In 6 soil samples values of chrouium <i>exceed MPC</i> , in 15 samples values of chromium <i>exceed LV</i> and in all tested soil samples, concentration of crhomium are <i>bellow RV</i> .	
Nickel (Ni)	50	35	210	Nickel content in tested samples ranged between 10,3 mg/kg and 174,4 mg/kg. In tested soil samples values of nickel were bellow RV . In 41 tested soil samples, nickel concentracion exceeds MPC , and in 125 soil samples nicle values exceed LV . Monitored nickel values (above MPC) in all tested soil samples most likely depend on geochemical soil content since earlier research showed that naturally elevated nickel content is present in alluvial deposits of our rivers (Kolubara, Great Morava)	
Lead (Pb)	100	85	530	Lead content in tested samples ranged between 8,0 mg/kg and 138,39 mg/kg. In 6 soil samples values of lead exceed MPC , in 10 samples values of lead exceed <i>LV</i> and in all tested soil samples, concentration of lead are bellow RV .	
Copper (Cu)	100	36 190		In tested samples the concentration of copper ranged between 6,4 mg/kg and 97,9 mg/kg. In 52 soil samples the concentration of copper exceeds LV . In tested soil samples the copper values were bellow RV . In all tested sample the content of copper does not exceed MPC . The concentration of copper in all tested soil samples was bellow MPC and remediation levels, so this soil cannot be deemed polluted with this element.	
Zinc (Zn)	300	140	720	In tested samples the concentration of zinc ranged between од 9,6 mg/kg до 224,4 mg/kg. In 24 soil samples the concentration of zinc exceeds LV . In tested soil samples the zinc values were bellow RV . In all tested sample the content of zinc does not exceed maximum permissible concentration . The concentration of zinc in all tested soil samples was bellow MPC and remediation levels, so this soil cannot be deemed polluted with this element.	


Cadmium (Cd)	3	0.8	12	Cadmium content in tested samples ranged between 0,4 mg/kg до 3,3 mg/kg. In 80 soil samples values of cadmium <i>exceed LV</i> . In tested soil samples cadmium levels were <i>bellow RV</i> . In one tested sample the concentration of cadmium <i>exceeds MPC</i> .
Arsenic (As)	25	29	55	Arsenic content in tested samples ranged between 1,1 mg/kg до 16,8 mg/kg. Arsenic content in tested soil samples was <i>bellow limit and remediation values</i> of prescribed arsenic values and arsenic content in all soil samples <i>does not exceed maximum allowed concentration.</i>

Note: Kostolac TPP and OCM environmental monitoring plan and program foresees monitoring of Kostolac TPP and OCM Branch operation impact every second year.

4.2.5. Environmental Noise Measurements

Noise measurements were performed in 208 on eight measurement points in accordance with the Noise Protection Act (OG RS № 36/2009 and OG RS № 88/2010), Rules stipulating noise measurement methodology, the content and form of noise measurement reports (OG RS № 72/2010) and the Rules stipulating noise indicators, limits, methods for evaluating noise indicators, disturbance and harmful environmental noise effects (Official Gazette of RS, No. 75/2010).

Measurements were carried out on the following measuring points:

- 1. TEKO A crossroad to Dragulj
- 2. TEKO A FIO Minel
- 3. TEKO A staircase at PRIM
- 4. TEKO B container park
- 5. TEKO B Mlava River ship lock
- 6. TEKO B Drmno village Crushing facility
- 7. Drmno OCM Lookout point
- 8. Drmno OCM Road to Klicevac village

Table 80 shows the measured environmental noise levels in 2018 for the Kostolac TPPs and OCMs Branch (both open cast mines and thermal power plants), especially during winter and summer seasons.

During noise levels measuring, the units operated at full capacity (TPP A1 – 100MW; A2 - 210 MW; B1 - 348,5 MW; B2 - 348,5 MW).

Local government of city municipalities of Kostolac and Pozarevac did not perform acoustic zoning in accordance with the Noise Protection Act (OG RS № 36/09 and 88/10).

Due to the lack of clearly limited acoustic zones, measuring points cannot be precisely determined, as well as the limits for these measuring points. For this reason legal compliance of the Kostolac OCMs and TPPs Branch in this respect cannot be assessed.

Kostolac TP	Ps and OCMs Br	anch				
Noise levels	in 2018 (dB)(A)					
	lm	easuring-wint	er			
Measuring		TPP - OCM A			TPP – OC	МВ
point	Crossroad to Dragulj	FIO Minel	Staircase at Prim	Container park	Mlava River ship lock	Crushing facility
day	53,3	54,8	51,3	49,1	50,5	54,3
day	53,0	48,7	50,7	48,9	50,2	53,8
night	53,5	48,9	50,9	51,0	53,4	60,7
night	51,9	49,9	51,8	54,9	50,1	53,6
night	51,5	48,9	51,4	53,7	50,0	48,2
	ll me	easuring-sum	ner			
Magauring		TPP - OCM A			TPP – OC	МВ
point	Crossroad to Dragulj	FIO Minel	Staircase at Prim	Container park	Mlava River ship lock	Crushing facility



day	53,2	48,6	51,6	49,7	50,9	54,0		
day	53,4	47,8	50,9	49,4	50,4	54,9		
night	54,9	48,0	51,3	51,3	53,9	61,0		
night	51,1	47,9	52,7	52,6	50,2	53,2		
night	51,0	47,4	51,2	52,2	49,8	48,7		
night		54,7		50,8				
night		54,6		50,6				

In the upcoming period, the drafting of the Environmental Impact Assessment will be prepared for TPP and CHPP.

4.2.6. Waste

Table 81 shows waste production in 2018 for Kostolac TPPs and OCMs Branch (parts of the TPP Branch Kostolac A and Kostolac B).

Table 82 shows quantities of waste from Kostolac TPPs and OCMs Branch delivered in 2018 (parts of the TPP Branch Kostolac A and Kostolac B).



						Table 81
Kosto	olac TPPs and OCMs Branch					
Wast	e generated in 2018					
ōN	Official nomenclature of the Rules defining waste categories, its testing and classification OG RS № 56/10	Index number		Organizational unit		Note
	Name		TPP-OCM A	TPP - OCM B	ΤΟΤΑΙ	
1	Waste printer cartridges other than the ones indicated under 08 03 17	08 03 18	0,017	0,630	0,647	-
2	Fly ash from coal	10 01 02	584.918,810	1.122.141,700	1.707.060,510	-
3	Calcium-based solid waste from gas desulphurization process	10 01 05	0,000	92,500	92,500	-
4	Mineral non-chlorinated hydraulic oil	13 01 10*	2,340	8,500	10,840	-
5	Packaging containing residues of hazardous substances or contaminated by hazardous substances	15 01 10*	0,170	0, 910	1,080	Hydrazine packing
6	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing, contaminated with hazardous substances	15 02 02*	0,005	0,276	0,281	Mutton cloth
7	Lead batteries	16 06 01*	10,100	0,700	10,800	-
8	Plastics	17 02 03	0,050	0,000	0,050	-
9	Copper bronze brass	17 04 01	0,000	11,500	11,050	-
10	Aluminium	17 04 02	1,000	16,740	17,740	-
11	Iron and steel	17.04.05	502,400	387,780	890,180	Different thicknesses
11		17 04 05	180, 632	968,560	1.149,192	Impact plates and strips
12	Cables other than those indicated under 17 04 10	17 04 11	16,00	27,56	43,56	Copper cables
13	Insulation materials other than those indicated under 17 06 01 and и 17 06 03	17 06 04	5,000	30,000	35,000	Mineral wool
14	Saturated or worn-out ion-exchange resins	19 09 05	0,000	28,960	28,960	-



15	Fluorescent tubes and other waste containing mercury	20 01 21*	0,100	0,169	0,269	-
16	Discarded electrical and electronic equipment other than the one indicated under 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	0,000	0,485	0,485	-
17	Discarded electrical and electronic equipment other than the one indicated under 20 01 21, 20 01 23 and 20 01 35	20 01 36	0,005	0,000	0,005	Sodium bulbs

	Table 82										
Kost Was	olac TPPs and OCMs Branch te delivered in 2018										
å	Official nomenclature of the Rules defining waste categories, its testing and classification OG RS № 56/10	Index number	Organizational unit								
	Name		TPP-OCM A	TPP - OCM B	Total	Note					
1	Fly ash from coal	10 01 02	0,000	19.959,960	19.959,960	Sold					
2	Mineral non-chlorinated hydraulic oil	13 01 10*	0,000	0,940	0,940	Sold					
3	Copper bronze brass	17 04 01	0,000	13,500	13,500	sold					
Λ	Iron and steel	17.04.05	0,000	377,880	377,880	sold					
4	Iron and steel	17 04 05	0,000	983,560	983,560	sold					
5	Cables other than those indicated under 17 04 10	17 04 11	0,000	28,560	28,560	sold					
6	Packaging containing residues of hazardous substances or contaminated by hazardous substances	15 01 10*	0,920	1,860	2,780	Disposed of for a fee					
7	Saturated or worn-out ion-exchange resins	19 09 05	0,000	28,960	28,960	Disposed of for a fee					



8	Fluorescent tubes and other waste containing mercury	20 01 21*	0,100	0,169	0,269	Sold free of charge
9	Discarded electrical and electronic equipment other than the one indicated under 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	0,000	0,479	0,479	sold

4.3. Working Environment Monitoring, Safety and Health

Occupational Safety and Health Reports for 2018 include the following elements:

• Working environment monitoring

-working environment noise measurements

- Safety
 - training
 - work injuries
- Health

4.3.1. Working Environment Monitoring

Working environment noise measurements

In 2018 in TPP Kostolac A working environment monitoring was performed, i.e. the periodic working environment conditions tests at 87 work posts. The measurings were performed for the following working environment parameters:

- microclimate during the summer period
- brightness
- physical hazards
- chemical hazards

Within teasting and measuring of physical hazards, working environment noise measurement was also performed. Of all work posts where measurings were performed, 87 work posts in total, measured noise value at 34 work posts exceeded limit values.

In TPP Kostolac B, during 2018, working environtment measurings were not performed, i.e. working environment noise measurements were not performed.

4.3.2. Occupational Safety

Training

Employees are trained according to the Health and Safety Training Programme. Testing of occupational safety competence and knowledge is carried out every three or five years depending on the workplace in compliance with the Act on Kostolac TPPPs and OCMs Branch risk assessment. According to Occupational Health and Safety Act, training within Kostolac TPP is performed whenever new workers are recruited, deployed to new workplaces, in the process of technological changes and the introduction of new equipment and work tools. Revision and knowledge tests were conducted for the employees working at high risk posts.

Table 83 shows the number of employees foreseen for training and the number of trained employees in 2018

					Table 03	
Kostolac TPPs and OCMs Branch						
Training in 2018						
Ormaniaatianal unit	Number of	Foreseen	for training	Trained		
Organisational unit	employees	N⁰	%	N⁰	%	
KOSTOLAC A TPP	374	278	74,33	278	100,00	
KOSTOLAC B TPP	392	372	94,90	372	100,00	
TOTAL: Kostolac OCMs and TPPs Branch	766	650	84,86	650	100,00	

Note: Some workers went through more than one training, for example due to relocation to other jobs or as a post injury measure

Work injuries

Table 84 provides work injuries data for 2018.



Kostolac TPPs and OCMs Branch									
Work injuries in 2018									
Organizational unit	Number of	Injuries – Number of employees ratio							
Organisational unit	employees	Light	Serious	Fatalities	Total	%			
KOSTOLAC A TPP	374	6	1	0	7	1,87			
KOSTOLAC B TPP	392	5	0	0	5	1,28			
TOTAL: Kostolac OCMs and TPPs Branch	766	11	1	0	12	1,57			

4.3.3. Health

All employees at Kostolac TPPs are conducted to pre-employment and periodic medical examinations. Workers are directed to pre-employment medical examinations before they are hired and when they are deployed to a different workplace that has a higher risk factor. Employees working at high risk posts are directed to periodic medical examinations once a year. Periodic examinatons in 2018 were performed at Occupational healthcare center Pozarevac.

Table 85 provides periodic examination data verifying the work capability of employees in 2018.

											Table 8
Kostolac TPPs and Work capability in	d OCMs Branch 2018										
		P	eriodical	examinat	ions			Work c	apability		
Organisational	Number of	Referred to examination		Examined		Capable		Limited capability		Not capable	
um	employees	број	%	број	%	број	%	број	%	број	%
KOSTOLAC A TPP	374	194	51,87	166	85,57	150	90,36	10	6,02	1	0,60
KOSTOLAC B TPP	392	322	82,14	315	97,83	291	92,38	24	7,62	0	0,00
TOTAL: Kostolac OCMs and TPPs Branch	766	516	67,36	481	93,22	441	91,68	34	7,07	1	0,21

4.4. Public Complaints

Public complaints in 2018 are shown in the Table 85.

Kostolac TPPs and OCMs Branch									
Public complaint in 2018									
Organisational unit	Complaint (made by)	Subject of complaint Measures taken							
KOSTOLAC A TPP KOSTOLAC B TPP	Complaint by the citizens of Klenovik village and Cirikovac village	The complaint was made with regard to dispersing of ash from ash and slag landfill from Cirikovac OCM in April. Cassette 2, with the surface of 42ha, was coated with 15cm thick soil in order to stop ash from spreading. The works were initiated in June and lasted 37 days. After the works were finished, dispersing of ash was stopped and there were no complaints.							



5. PANONSKE CHPPS BRANCH

Panonske CHPPs Branch comprises the following organisational units:

- Novi Sad CHPP,
- Zrenjanin CHPP and
- Sremska Mitrovica CHPP.

5.1. Overview and Status of Permits

New request for water licence extention for Panonske CHPP Branch was filed to *Vode Vojvodine* on 23rd December 2018

5.2. Monitoring and Environmental Impact

5.2.1. Air Quality Measurements

Air quality monitoring in the vicinity of the Panonske CHPPs Branch organizational units is carried out as part of the monitoring financed and organized by individual organizational units (as requested by inspection). It should be noted that the air quality monitoring is within the competence of the legislator; therefore air quality monitoring is carried out as part of the national automatic air quality monitoring network, comprising measuring points located around the Panonske CHPPs Branch.

Monthly and annual air quality reports in the vicinity of the Panonske CHPPs organisational units (when there are measurements) are made available to the local government and public administration upon request.

Novi Sad CHPP

No air quality measurements have been carried out in 2018.

Zrenjanin CHPP

No air quality measurements have been carried out in Zrenjanin CHPP since 2011. From the mentioned period, there is no statutory obligation of air quality measurement, unless by order of the competent authority.

Sremska Mitrovica CHPP

No air quality measurements in 2018.

Table 87 shows the analysis of air quality data for 2018 in terms of their legal compliance for individual Panonske CHPPs Branch organisational units.

Air quality was evaluated based on the measurement results compared with the values specified by the Regulation stipulating air quality monitoring conditions and requirements (OG RS \mathbb{N} 11/2010) and the Regulation amending the Regulation stipulating air quality monitoring conditions and requirements (OG RS \mathbb{N} 75/2010 and 63/2013). The above regulations were harmonised with the European Union legislation.

Annual values data for the parameters that were not measured throughout the entire year were not statistically processed and evaluated.



PANONS	SKE CH	PPs BRAN	СН									
Air qualit	ty in 20	18										
Legal co	mplian	ce (number	of data or days e	ceeding l	egal limits)							
dicator		beriod	TPM (mg/m²/day)	* Total	cuenondod	nartiolog		Carc	inogen	s (μg/m ³)		
ality in		iging p	Maximum	– PN	A-10 measu	red -10	Maximum permissible va value - Te			value – N TgV	IPV Tar	get
Air qua		Avera	permissible value - MPV	(µg/m ⁻)			Cr+ MP\	6 /	Cd TgV	As MPV, TgV	N MPV,	i TgV
Avera	aging p	eriod	-	LV	TV	TL	-		-	-	-	
***	One da	y wth	-	50	50	0	-		-	-	-	
****0		ntn	450	-	-	-	-		-	-	-	
Ca	alendar	year	200	40	40	0	0,3		5	6	20)
NOVI SA	D	1			N							
CHP	Ρ	2			No	air quality n	neasuremer	its				
CHPP No air quality measurements												
SREMS	SKA	1										
MITRO\ CHP	IROVICA Image: No air quality measurements CHPP 2											
, . ⊈	5	eriod	Soot (µg/m³)		NO₂ (µg/m	SO ₂	(µg/m³))	Pb	(µg/m³)	1	
Air quali	Indicato	Averaging p	Maximum permissible value - MPV	LV	τv	TL	LV	тv	TL	LV	тv	TL
C	One hou	ur 🗌		150	172,5	22,5	350	350	0		-	1
*	One da	у	50	85	97	12	125	125	-	1	1	-
***Ca	alendar	year	50	40	46	6	50	50	-	0,5	0,5	0
	SAD	1										
CHP	P	2			No	air quality n	neasuremer	nts				
705111		3										
CHP	ANIN P	2			No	air quality n	neasuremer	nts				
	SKA VICA D	1			No	air quality n	neasuremer	nts				
UIII		riod	Soot (µg/m³)		NO₂ (μg/m ³	3)	SO ₂	(µg/m ³))	Pb	(µg/m³))
Air quality	Indicator	Averaging per	Maximum permissible value - MPV	LV	TV	TL	LV	TV	TL	LV	TV	TL
C	Dne hou	ır		150	180	30	350	350	0		-	·
*	One da	у	50	85	101	16	125	125	-	1	1	-
***Calendar year		year	50	40	48	8	50	50	-	0,5	0,5	0



	1	*No exceedances		*No exceedances	*No exceedances				
NOVI SAD CHPP	2	*No exceedances	*No exceedances	**1 exceedance - during the period of exceedance plant was out of operation	*No exceedances				
	3 [*] No exceedances		*No exceedances						
ZRENJANIN	1		No sin suality mossurements						
CHPP	2		ino air quality measurements						
	1		No oir quality	magauramanta					
CHPP	2	No air quality measurements							

LV – Limit value, TL – Tolerance limit, TV – Tolerance value TgV – Target value

5.2.2. Emission Measurements of Matters Affecting Air Quality

Flue gases containing sulphur dioxide, nitrogen oxides and dust are emitted through stacks:

- 160m Novi Sad CHPP
- 160m Zrenjanin CHPP
- Sremska Mitrovica CHPP
 - 1. 105m concrete stack
 - 2. 77.5 brick stack

Auxiliary boiler room (3 boilers, each having its own stack – total 3 small metal stacks)

- 2 metal stacks 7m
- 1 metal stack 4.7m

In accordance with the legislation individual measurements of air pollutants are performed regularly, while continuous measurements are carried out on boilers of Panonske CHPPs Branch organizational units only for the purpose of internal monitoring since no conditions to obtain consent to carry out continuous measurements have been met.

Individual emissions measurements of matters affecting air quality

Emissions of air pollutants for 2018 are given for each plant individually based on measurements performed by an accredited laboratory of the Novi Sad "Institute for Prevention, Safety at Work, Fire Protection and Development" and Novi Sad Occupational Safety Institute in line with the Individual Air Emission Measurement Programme. The programme included flue gases (temperature, pressure and humidity), flow rate, oxygen content, as well as mass concentrations and emission factors for sulphur dioxide (SO2), nitrogen oxides (NOx - NO2), carbon monoxide (CO), and dust.

Table 88 summarises the results of individual measurements of air pollutants for the Panonske CHPPs Branch conducted in 2018.



											Та	able 88
PANONSKE CHPP	s BRA	NCH										
Individual air emis	sion m	neasurem	ents in 20 ⁻	18								
Mass concentratio	ns of p	ollutants	s (mg/Nm ³)									
					Novi Sa	d CHPP						
Unit			A1 (K1	and K2)					A2(K	3)		
Heat output			2x279	MWth					320 M\	Nth		
Heat output at						878	MWth					
stack							0					
Fuel				*			Gas		O**			
$\frac{302}{NO_{1}(NO_{2})}$				*					681.6	**		
				*					2 35	**		
Barticulate									0,00			
matter				*					0,4*	*		
					Zrenjani	n CHPP	l					
Unit			A1(K1 a	and K2)					A2 – out of o	operatio	n	
Heat output			2x250	MWth								
Fuel			G	as					-			
ELV			ELV ¹		ELV ²				ELV ¹		ELV ²	
SO ₂		-	35		35		-		-	-		
NO _x (NO ₂)		-	300		300		-		-		-	
CO		-	100		-		-		-		-	
Particulate matter		-	5		5		-		-		-	
				Srei	mska Miti	rovica Cl	HPP					
Unit			A3(K3 a	and K4)			Auxi	liary bo	iler room	Bio	omass bo TE.K - 405	iler 5
Heat output			2x80	MWth				3x15 M	Wth		18 MWth	
Fuel		Gas			Heavy oi	I		Gas	5	Sur	nflower h	usk
ELV		ELV ¹	ELV ²		ELV		ELV ¹	ELV ²		ELV		ELV ¹
SO ₂	-	35	35	-	1.700	1.700	0	35	-	2,7	1.700	200
CO	-	100	-	-	175	-	1,98	100	-	172,7	300	-
NO _x (NO ₂)	-	300	300	-	450	450	155,2	200	200	264,2	650	650
Particulate matter	-	5	5	-	50	50	-	10	-	1,21	50	30

¹Decree stipulating air emission limit values of pollutants from combustion plants (OG RS № 6/2016)

²Directive 2001/80/EC - Large Combustion Plants

³ In November 2015, EC adopted the Medium Combustion Plants Directive 2193/2015, setting a deadline for 2025 and 2030 for the existing medium combustion plants to comply with ELV depending on their capacity. At the moment the Republic of Serbia has no obligation to apply this Directive. *Boiler 1 at Novi Sad CHPP was out of operation in 2018 and boiler 2 has been in operation for 22,25 hours in 2018

**Air emission measurement for Novi Sad CHPP boiler 3 is carried out twice and middle value is presented in the Table 89.

Note: According to the Decree stipulating air emission limit values of pollutants from combustion plants (OG RS № 6/2016), Article 5, it is stipulated that all large combustion plants don't have to comply to each individual ELV if they were included in the preliminary application for the National Emission Reduction Plan for Large Stationary Combustion Plants since the date of the aforementioned Decree's coming into force.

Boilers 2 and 3 of the Novi Sad CHPP fired natural gas during the entire 2018.

In 2018 no air pollutant emissions measurements were performed in Zrenjanin CHPP since generation unit was not in operation. Unit A2 has not been in operation nor in function since 1st November 2010.



The last emission measurement was conducted on boiler B1, heat output of 250 MW, Unit A1, in 2012. Since 2012, Unit A1 was not in operation. For heating purposes of the Zrenjanin CHPP facilities, boiler T110 is used, heat output of 8.5 MW, which was in operation during the heating season of 2018. The average heat output used to heat own facilities is approximately 500 kW. Emissions were measured by an internal TESTO device, however due to the low boiler generation, the TESTO device was unable to register any pollutants. This means that emissions of pollutants were below the detection limit of the device.

During 2018 in the Sremska Mitrovica CHPP, one boiler fired biomass TE.K – 405 (sunflower husk) while auxiliary boiler in the auxiliary boiler room S-2400/2 operated exclusively on natural gas. Unit A3 was not in operation. Steam boilers S-2400/1 μ S-2400/3 operated on natural gas less than 100 hours.

Tabel 89 shows the analysis of individual air pollutants emissions measurements for 2018 in terms of their legal compliance, for Zrenjanin CHPP and Sremska Mitrovica CHPP.

Table 89

PANONSKE CHPPs BRANCH									
Legal compliance – air emissions in 2018									
Organisational unit Particulate matters SO2 NOx (NO2)									
Zrenjanin CHPP	Zrenjanin CHPP No measurements								
Sremska Mitrovica CHPP	MPB not in operation Auxiliary boiler room emission and Biomass boiler emission below ELV (RS and EU)	MPB not in operation Auxiliary boiler room emission and Biomass boiler emission below ELV (RS and EU)	MPB not in operation Auxiliary boiler room emission and Biomass boiler emission below ELV (RS and EU)						

Legal compliance is evaluated by comparing the measured values of air emissions with the emission limit values (ELVs) defined by the Regulation stipulating air pollutants emission limit values from large combustion plants (OG RS № 6/2011), European Union (EU) Large Combustion Plants Directive 2001/80/EC and the Medium Combustion Plant (MCP) Directive 2193/2015.

Continuous emissions measurements of matters affecting air quality

In addition to the basic equipment consisting of analysers measuring mass concentrations of dust and gases, additional equipment was installed on stacks measuring oxygen, carbon dioxide and humidity content as well as temperature, pressure and flue gas flow rate, SO₂, CO, NO₂, NO_x, HCI, HF. Data acquisition and processing equipment was also installed.

Table 90 shows the continuous air emissions measurement equipment data for all the Panonske CHPPs Branch organisational units.

PANONSKE CHPPs BRANCH										
Continuous air emissions measuring equipment in 2018										
	Pollutants Parameters									
Organisational	Particulate	Gases		Co	ontent					
unit	matters	SO ₂ , NO _x (NO ₂), CO	NOx (NO2), COHCl and HFHumidityCO2O2analyzer1 analyzer each	р	b t	flow				
	1 analyzer	1 analyzer 1 analyzer 1 analyzer each 1 device each								
Novi Sad CHPP	Equipment installed Platform located at	d at the level of 41.8 m, exter the level of 40.0 m, exter	kternal stack nal stack linir	lining. ng. Stack hei	ght - 16	0 m				
Zrenianin	1 analyzer	1 analyzer		1 analyzer ea	ach			1 device	e each	
CHPP	Equipment installed Platform located at	d at the level of 38 m, extended the level of 37.0 m, exter	ernal stack lir nal stack linir	ning. ng. Stack hei	ght - 16	0 m.				
Sromska	1 device each 1 device each									
Mitrovica CHPP	Equipment installed the brick stack (77.	d on the horizontal rectilin 5 m height).	ear flue gas	duct of the b	iomass	boiler T	E.K –	405, co	onnected to	



Continuous measurements are aligned with the EN 14181_QAL1 standard. Statistical continuous measurements data analysis software prepares daily, monthly and annual reports.

Annual emissions of matters affecting air quality

Table 91 summarises air pollutants emissions: dust, SO₂, NO₂ and CO₂ for the Panonske CHPPs Branch in 2018.

Annual SO₂ and NO₂ emissions were calculated on the basis of the measured mass concentrations, flue gas flow rate and operating time of each unit, while CO₂ emissions were calculated based on the fuel consumption data shown in Table 92 and ECF – emission correction factor.

Table 91

PANONSKE CHPPs BRANCH				
Air emissions in 2018 (t/year)				
Organisational units	Particulate matters	SO ₂	NO _x (NO ₂)	CO ₂
	NOVI SAD CHPP		•	
Unit A1, B-1 and B -2	0,00109	0,000	1.855	806,650
Unit A2, B-3	0,3175	0,000	540,973	181.435,500
Total: Novi Sad CHPP	0,31859	0,000	542,828	182.242,150
	ZRENJANIN CHPP			
Lipit A1	0.000	0.000	0.000	0,000
	0,000	0,000	0,000	0,000
Unit A2	0,000	0,000	0,000	0,000
Total: Zrenjanin CHPP	0,000	0,000	0,000	0,000
S	REMSKA MITROVICA CI	HPP		
Unit A3, B3/B4	0,000	0,000	0,000	0,000
S-2400/1	0,000	0,000	0,000	51,140
S-2400/2	0,000	0,000	1,527	1.057,700
S-2400/3	0,000	0,000	0,000	33,140
Biomass-fired boiler	0,0751	0,103	18,082	170,340*
Total: Sremska Mitrovica CHPP	0,0751	0,103	19,609	1.312,320
TOTAL: PANONSKE CHPPs	0,39369	0,103	562,437	183.554,470

* CO2 generated from the consumed natural gas for biomass boiler ignition.

PANONSKE CHPPs BRANCH										
Fuel consumption in 2018										
Organisational unit		Fuel type								
	NOVI SAD CHPP									
	Gas (kStm³/year)	Heavy fuel oil (kt /year)	Biomass (kt/year)							
	0,433	0,000	0,000							
Unit A1, B -1 and B -2	97.498,239	0,000	0,000							
Unit A2, B-3	97.498,672	0,000	0,000							
	ZRENJANIN CHPP									
Unit A1	0,000	0,000	0,000							
Unit A2	120,220*	0,000	0,000							
Total: Zrenjanin CHPP	120,220*	0,000	0,000							
SI	REMSKA MITROVICA CHPP									
Unit A3, B3/B4	0,00	0,000	0,000							
S-2400/1	27,480	0,000	0,000							
S-2400/2	568,378	0,000	0,000							



S-2400/3	17,808	0,000	0,000
Biomass boiler	91,537	0,000	5,947
Total: Sremska Mitrovica CHPP	705,203	0,000	5,947
TOTAL: PANONSKE CHPPs	98.324,095	0,000	5,947

* Fuel consumption for heating own facilities in Zrenjanin CHPP

• Harmonisation of air emissions with EU legislation

Sulphur dioxide

To reduce the Panonske CHPPs SO₂ emissions, the use of heavy fuel oil with sulphur content of up to 1% was planned together with the combined cycle operation – gas/heavy fuel oil.

Novi Sad CHPP

Heat output of boilers is 2x279 MW and 1x320MW, whereby when one boiler fires heavy fuel oil with sulphur content up to 1% ELVs will not be exceeded which is in line with EU legislation.

Zrenjanin CHPP

Heat output of the boiler is 2x250MW, whereby when one boiler fires heavy fuel oil with sulphur content up to 1% ELVs will not be exceeded which is in line with EU legislation.

Sremska Mitrovica CHPP

Heat output of the boiler and auxiliary boiler are 2x80MW and 3x15MW respectively. When one boiler fires heavy fuel oil with sulphur content up to 1% ELVs will not be exceeded which is in line with EU legislation. There is also an 18MW biomass-fired boiler not exhibiting SO₂ emission during its operation.

Nitrogen oxides

Novi Sad CHPP, Zrenjanin CHPP and Sremska Mitrovica CHPP

At the moment the following study is being conducted: Optimal directions targeting nitrogen oxide emissions reduction from PE EPS TPPs and CHPPs firing liquid and gaseous fuels.

5.2.3. Emission Measurements of Matters Affecting Water Quality

Measurement of emissions that affected water quality in 2018 are provided for every CHPP separately, based on research done by accredited laboratory Institute for Occupational Safety Novi Sad and Vatrogas Institute - Novi Sad.

Novi Sad CHPP

Water used for condenser water vapour cooling has the highest share in the total amount of process water used by Novi Sad CHPP. In addition a circulating cooling system is also installed, while water is supplied from the Danube. Return cooling water and all other industrial wastewater is after treatment discharged into the Danube. A small share of water is used to produce demineralized and soft water.

Sanitary-sewage water is from November 2012 discharged into the city wastewater collector. Storm drainage is from November 2012 discharged into the city wastewater collector. The Danube water belongs to Class II.

Wastewater quality and its Danube impact is controlled 4 times a year. The Novi Sad CHPP wastewater is discharged over three outlets:

- Storm drainage;
- Sanitary-sewage water system. From 2013, quality of this water is not controlled, given that it is discharged into the city wastewater collector;
- Cooling water channel.



Monitoring programme includes the following physical-chemical parameters: temperature, pH, turbidity, ammonia, inorganic nitrogen, cyanides, suspended substances, dissolved oxygen, COD, BOD₅, total phosphorus, mineral oils, Pb, Cd, Cu. Cr, Ni and Zn.

Wastewater sampling is performed on 7 measuring points, as follows:

- 1. Storm drainage last manhole inside the Novi Sad CHPP grounds;
- 2. Return cooling and process water Danube discharge point
- 3. Danube water 100m downstream from the cooling water discharge;
- 4. Danube water 100m upstream from the cooling water discharge;
- 5. Neutralisation basin;
- 6. Oily water at the oily water treatment plant inlet primary treatment;
- 7. Oily water after secondary treatment (carbon filters).

In 2018 wastewater quality was controlled on 3 occasions.

Zrenjanin CHPP

Water used for condenser water vapour cooling has the highest share in the total amount of process water used by the Zrenjanin CHPP. Zrenjanin CHPP cooling water system is of the recirculation type including a turbine condenser, cooling towers, cooling water pumps, pipes and valves. Decarbonised water is used as an operating fluid by the cooling water system. Begej River water is used to produce demineralized and decarbonised water.

Wastewater (from boiler chemical cleaning, cleaning and passivation of water channels and oily water) is discharged after treatment into the Aleksandrovac channel and subsequently into the Begej River. Aleksandrovac channel belongs to Category IV, while the Begej River water belongs to Category II.

Decarbonisation and clarification processes wastewater is fed back to the process while the resulting sludge cake is transported and disposed at the landfill.

Acid-alkaline water originating from the demineralization process is neutralized and discharged into the Aleksandrovac channel. Acid-alkaline wastewater from regenerative air heater washing is processed (neutralization and sedimentation) and returned to the process as filtrate.

Oily wastewater is also treated (through carbon-anthracite filters) and subsequently discharged into the Aleksandrovac channel.

Sanitary-sewage water is after mechanical-biological treatment by the PUTOKS plant discharged over a special channel into the Aleksandrovac channel.

Zrenjanin CHPP wastewater quality and its water recipient impact is controlled 4 times a year. Wastewater is sampled on 5 measuring points, as follows:

- Sanitary-sewage water;
- Neutralization pit;
- Aleksandrovac channel before discharge;
- Aleksandrovac channel after discharge;
- Oily water.

Monitoring programme includes the following physical-chemical parameters: temperature, pH, electrical conductivity, dissolved oxygen, turbidity, suspended substances, sedimentary matter, alkalinity, acidity, COD, BOD₅, permanganate demand, chloride demand, total nitrogen, total phosphorus, ammonia, nitrites, nitrates, phosphates, sulphates, phenol index, hardness, grease and oil. Sampling was conducted within the Zrenjanin CHPP grounds, Aleksandrovac channel and Begej River.

In 2018 wastewater quality was controlled on three occasions.



Sremska Mitrovica CHPP

Water used for T/G 32 MW turbine condenser cooling has the highest share in the total amount of process water used by the Sremska Mitrovica CHPP. Sremska Mitrovica CHPP has a continuous cooling system, and is supplied by water from the Sava River. Return cooling water is discharged into the Sava River. The Sava River is classified as a Class II watercourse.

One drilled well is located on the land jointly owned by the ISTEP Company and Sremska Mitrovica CHPP. Water from this well acquires quality of drinking water upon deferrization process.

A part of wastewater is not discharged directly into the recipient but after processing in waste water treatment plant (oily waste water and heavy fuel oil contaminated waste water plant) is discharged through control-gauging manhole into the city industrial-sewage collector. Technical acceptance of waste water treatment plants is in progress, as well as obtaining of use permits.

After processing in sewage water treatment plant sanitary water is discharged into the city industrial-sewage collector. Trial run of the plant was performed in 2017.

Sremska Mitrovica CHPP wastewater quality is controlled 4 times a year. Wastewater from the Sremska Mitrovica CHPP is discharged via three outlets as:

- Cooling water into recipient,
- Wastewater (sanitary and sludgy) joined with the wastewater from ISTEP Company and subsequently discharged into the recipient; This was valid for the first three quarters.
- Sanitary waste water is discharged through a separate pipeline into the city industrial-sewage collector;
- Wastewater (from the HPV plant, from boilers desludging, water from oil-containing water separators) is discharged through control-gauging manhole into the city industrial-sewage collector.

Monitoring programme includes the following physical-chemical parameters: temperature, pH, ammonia, total inorganic nitrogen, cyanides, suspended solids, dissolved oxygen, COD, BOD₅, total phosphorus, mineral oils, Pb, Cu, Ni, Zn, Cr, Fe, Cd.

Wastewater sampling was carried out at 8 measuring points:

- 1. Wastewater coming from control-gauging manhole at the discharging point into the city collector,
- 2. Wastewater coming from the last manhole before pouring into the Sava River,
- 3. Wastewater at the inlet and outlet of the plant for oily water treatment,
- 4. Wastewater at the inlet and outlet of the plant for sludgy water treatment.
- 5. Wastewater at the inlet and outlet of the plant for sewage water treatment.

Recipient, Sava River, sampling was carried out at 2 measuring points:

- At the water inlet into the water intake and
- After the wastewater discharge into the recipient.

Wastewater quality in 2018 was controlled on four occasions.

Table 93 shows analysis of wastewater, watercourse - recipient water quality data for 2018 in terms of their legal compliance for Panonske CHPPs Branch.

In the case of surface waters, legal compliance is evaluated by comparing the measured values of hazardous and harmful substances with the limits defined by the Regulation stipulating limit values for pollutants in surface and ground waters and sediments, and deadlines for their achievement (OG RS № 50/2012) while wastewater values are compared with the limits defined by the Regulation stipulating limit values of pollutants in water and deadlines for their achievement (OG RS № 50/2012).

PANONSKE CHPPs BRANCH



Table 93

Wastewater and w	rater recipient quality in 2018		
Weter tures		Organizational unit	
water type	Novi Sad CHPP	Novi Sad CHPP	Novi Sad CHPP
Wastewater	No exceedance in 2018	Neutralisation basin: no ELV exceedance Oily waters: no ELV exceedance Sanitary-sewage water Putoks: ELV exceedance Ammonia: 11,9 mg/l Total inorganic nitrogen: 10-11,9 mg/l	In the I quarter in the last manhole prior Sava inflow point, there was ELV exceedance for Fe 1,626mg/l; at at oily waters facility outlet ELV exceedance for Pb was 0,071mg/l and Cd 0,0075; oily waters treatment plant ELV exceedance for was Pb was 0,125mg/l, at sanitary-sewage water treatment plant ELV exceedanc for Pb was 0,111mg/l In the II quarter there wasn't any ELV exceedance In the III quarter there wasn't any ELV exceedance In the IV quarter there wasn't any ELV exceedance
Recipient	Danube – prior to cooling and make-up water discharge (upstream) – ELV exceedance: Amonia: 0,34-0,72 mg/l Nitrites: 0,04 mg/l Danube – after cooling and make-up water discharge (downstream) – ELV exceedance: Amonia: 0,33-0,83 mg/l Nitrites: 0,04 mg/l	Aleksandrovac Channel prior to discharge, ELV exceedance: BOD ₅ : 39-90 mg/l Amonia: 7,97-58,2 mg/l Total inorganic nitrogen: 8,72-58,7 mg/l COD ₅ : 126 mg/l Aleksandrovac Channel after discharge, ELV exceedance: BOD ₅ 28-80 mg/l COD ₅ 129 mg/l Amonia: 29-48 mg/l Nitrites: 0,83 mg/l Total inorganic nitrogen: 29-48,8 mg/l	In the I quarter river Sava exceeded referential values for the parameters: COD 38mg/l, nitrites 0,039mg/ and iron 0,093mg/l. In the II quarter there wasn't any ELV exceedance In the III quarter there wasn't any ELV exceedance In the IV quarter there wasn't any ELV exceedance

Water amounts

Table 94 summarises the amount of water captured and discharged by organizational units of Panonske CHPPs Branch in 2018. Annual amounts are calculated on the basis of the capacity, water capture and discharge pumps' operating time and flow gauges data.

PANONSKE CHPPs BRANCH									
Captured and di	Captured and discharged water amounts in 2018 (m³/year x10³)								
Water intake Discharged wastewater									
Organizational	Used amo	ounts	Permitted a	mounts Return Sanitary	Other water				
unit	Surface	Ground	Surface	Return cooling water		Oily water	vastewate r	(neutralisation pit and luvo washing)	
Novi Sad CHPP	32.309,394 - 32.869,264 - 31.967,156 3,526 3,088 28,390							28,390	



Zrenjanin CHPP	110,089	-	-	-	-	3,634	2,490	3,902
Sremska Mitrovica CHPP	34,830	16,114	-	*72,533	-	-	16,000	27,400
TOTAL: Panonske CHPPs Branch	32.454,313	16,114	32.869,264	*72,533	31.967,156	7,160	21,578	59,692

* Data taken from the Book of Records on the status of groundwater reserves at the source of Sremska Mitrovica CHPP

Improvements aimed at reducing surface and groundwater wastewater impacts

Novi Sad CHPP

In order to reduce wastewater impact, the following open public procurement is currently being initiated by PE EPS - *Preliminary Design, Feasibility Study with Basic Design and Study on estimation of environmental impact of the Novi Sad CHPP wastewater treatment plant.*

Zrenjanin CHPP

In 2018 "Pre-feasibility Study with Zrenjanin CHPP Wastewater Treatment General Design" aimed at reducing of waste water influence was not prepared by PE EPS.

In order to improve the quality parameters of the discharged waters as well as to propose the currently most optimal solution, internal activities were undertaken to bring Putox plants (sanitary faecal waters) into an adequate functional state and a state of adequate efficiency, internal wastewater sampling and testing of individual parameters were performed and the results showed improvement, that is, the value of certain exceeded parameters is reduced.

Sremska Mitrovica CHPP

Technical acceptance of waste water treatment plants is in progress, as well as obtaining of use permits.

5.2.4. Emission Measurements of Matters Affecting Soil Quality

So far, certain measurements of emission of pollutants into the soil around the Panonske CHPP Branch consisting of Novi Sad CHPP, Zrenjanin CHPP and Sremska Mitrovica CHPP have been performed. Since 2014, for the purpose of the study Monitoring of soil contamination around the reservoirs and unloading liquid fuel stations in PE EPS and Monitoring system of the oil bunds and pits at the PE EPS facilities - Phase I, soil tests are performed by accredited MOL Institute Ltd. laboratory. Testing will last for 5 years. More detailed information will be available upon preparation and adoption of the above mentioned study.

Novi Sad CHPP

For the purposes of the study: "Monitoring of the system of oil baths and pits in the PE EPS facilities aimed at preventing environmental pollution - I phase", the testing of soil and groundwater was executed. In total 8 (eight) drillings were carried out and 8 (eight) composite soil samples were taken. According to the results of physical and chemical tests it can be concluded that the ground in the direct vicinity of oil baths and pits at the Novi Sad CHPP site is neither contaminated with arsenic and metals, such as chromium, nickel, lead, copper, zinc, cadmium, mercury and cobalt, nor with organic pollutants – mineral oils C_{10} - C_{40} , polychlorinated biphenyls (PCB), polycyclic aromatic hydrocarbons (PAH) and aromatic hydrocarbons (benzene, xylene, toluene and ethylbenzene).

For the purposes of the study: "Monitoring of soil contamination around the tanks and unloading stations for liquid fuel and oil and lubricants storage within subsidiaries of the Public Enterprise Electric Power Industry of Serbia", the testing of soil and groundwater was executed. In total 7 (seven) drillings were carried out and 7 (seven) composite soil samples were taken. According to the results of physical and chemical tests it can be concluded that the ground in the direct vicinity of heavy oil tank at the Novi Sad CHPP site is neither contaminated with arsenic and metals, such as chromium, nickel, lead, copper, zinc, cadmium, mercury and



cobalt, nor with organic pollutants – mineral oils C₁₀-C₄₀, polychlorinated biphenyls (PCB), polycyclic aromatic hydrocarbons (PAH) and aromatic hydrocarbons (benzene, xylene, toluene and ethylbenzene).

Zrenjanin CHPP

For the purposes of the study: "Monitoring of the system of oil baths and pits in the PE EPS facilities aimed at preventing environmental pollution - I phase", the testing of soil and groundwater was executed. In total 3 (three) drillings were carried out and 3 (three) composite soil samples were taken and sampling of groundwater from drillings was performed. According to the results of physical and chemical tests it can be concluded that the ground in the direct vicinity of oil baths and pits at the Zrenjanin CHPP site is neither contaminated with arsenic and metals, such as chromium, nickel, lead, copper, zinc, cadmium, mercury and cobalt, nor with organic pollutants – mineral oils C_{10} - C_{40} , polychlorinated biphenyls (PCB), polycyclic aromatic hydrocarbons (PAH) and aromatic hydrocarbons (benzene, xylene, toluene and ethylbenzene).

For the purposes of the study: "Monitoring of soil contamination around the tanks and unloading stations for liquid fuel and oil and lubricants storage within subsidiaries of the Public Enterprise Electric Power Industry of Serbia", the testing of soil and groundwater was executed. In total 11 (eleven) drillings were carried out and 11 (eleven) composite soil samples were taken and the testing of groundwater from the drillings was also executed. According to the results of physical and chemical tests it can be concluded that the ground in the direct vicinity of oil baths and pits at the Zrenjanin CHPP site is neither contaminated with arsenic and metals, such as chromium, nickel, lead, copper, zinc, cadmium, mercury and cobalt, nor with organic pollutants – mineral oils C_{10} - C_{40} , polychlorinated biphenyls (PCB), polycyclic aromatic hydrocarbons (PAH) and aromatic hydrocarbons (benzene, xylene, toluene and ethylbenzene).

Sremska Mitrovica CHPP

For the purposes of the study: "Monitoring of the system of oil baths and pits in the PE EPS facilities aimed at preventing environmental pollution - I phase", the testing of soil and groundwater was executed. In total 2 (two) drillings were carried out and 2 (two) composite soil samples were taken. According to the results of physical and chemical tests it can be concluded that the ground in the direct vicinity of oil baths and pits at the Sremska Mitrovica CHPP site is neither contaminated with arsenic and metals, such as chromium, nickel, lead, copper, zinc, cadmium, mercury and cobalt, nor with organic pollutants – mineral oils C_{10} - C_{40} , polychlorinated biphenyls (PCB), polycyclic aromatic hydrocarbons (PAH) and aromatic hydrocarbons (benzene, xylene, toluene and ethylbenzene).

For the purposes of the study: "Monitoring of soil contamination around the tanks and unloading stations for liquid fuel and oil and lubricants storage within subsidiaries of the Public Enterprise Electric Power Industry of Serbia", the testing of soil and groundwater was executed. In total 10 (ten) drillings were carried out and 10 (ten) composite soil samples were taken. According to the results of physical and chemical tests it can be concluded that the ground in the direct vicinity of oil baths and pits at the Sremska Mitrovica CHPP site is neither contaminated with arsenic and metals, such as chromium, nickel, lead, copper, zinc, cadmium, mercury and cobalt, nor with organic pollutants – mineral oils C_{10} - C_{40} , polychlorinated biphenyls (PCB), polycyclic aromatic hydrocarbons (PAH) and aromatic hydrocarbons (benzene, xylene, toluene and ethylbenzene). Soil from 3 (three) drillings is contaminated with mineral oil C_{10} - C_{40} .

5.2.5. Environmental Noise Measurements

Environmental noise measurements at the Panonske CHPPs Branch (Novi Sad CHPP and Zrenjanin CHPP) were carried out by an accredited laboratory of the Novi Sad Occupational Safety Institute from 2008 to 2009 when he *Rulebook* on *allowed environmental noise levels* ("Official Gazette of RS" *no.* 54/92) was in force.

The legislation does not prescribe any definite noise measurement periods, unless the relevant authority orders otherwise, as deemed necessary.

At CHPP Sremska Mitrovica environmental noise measuring was conducted on 21st February 2018 in accordance with the Law on Environmental Noise Protection ("*Official Gazette* of RS" *no. 36/09 and 88/10*). Act



on noise indicators, limiting values, methods for assessment of noise indicators, disturbance and harmful effects of environmental noise ("*Official Gazette* of RS" *no.* 75/2010)

In the upcoming period, it is planned to draft a study on noise reduction in the environment for TPP and CHPP.

Novi Sad CHPP

Novi Sad CHPP environmental noise levels were not measured in 2018. The last measurement was carried out on 30th December 2008.

Noise measurements were carried out in the area surrounding the Novi Sad CHPP. Since it is located near the Sangaj quarter, measuring points are concentrated in this area. The closest measuring points are some 500m away from the CHPP. Measurements were performed on 4 measuring points in the Sangaj quarter and 1 measuring point on the Danube bank. All devices representing noise sources are stationary. During noise measurements Boilers 2 and 3 and two turbines were in operation.

Zrenjanin CHPP

Zrenjanin CHPP environmental noise levels were not measured in 2018. The last measurement was carried out on 11th March 2009.

Noise measurements were conducted in the area surrounding the Zrenjanin CHPP. All devices which represent noise source are stationary. During noise measurement turbine and one boiler were in operation. The most important sources of noise are two fresh air fans for fresh air supply to the boiler. Device operation included day and night. Measurements were performed on 5 measuring points in the industrial area and inside Zrenjanin CHPP grounds at different distances from the source of noise (fans for fresh air supply to the boiler).

Sremska Mitrovica CHPP

Zrenjanin CHPP environmental noise levels were measured on 21st February 2018 by by an accredited laboratory of the Novi Sad Occupational Safety Institute.

Noise measurements were performed within Sremska Mitrovica CHPP area. All devices representing noise sources are stationary. Biomass boiler TE.K-405 and boiler S-2400/2 were in operation during noise measurements. The most important noise sources are flue gas fan and bag filter when the bags are being shaken. The measuring was carried out during the day and night, at property line at four points and in close proximity to the noise source.

Based on the results of performed environmental noise levels measuring it was concluded that the noise originating from Sremska Mitrovic CHPP does not affect residential facilities in the city.

Since environmental noise measurements haven't been conducted in 2018 in Novi Sad CHPP and Zrenjanin CHPP, but only in Sremska Mitrovica CHPP, the noise limit values in accordance with the valid legislation are shown in the Table 95.

				
PANONSKE CHPPs BRANCH				
Noise levels (dB) in 2018				
		Closed premises	Day and evening	Night
Noise indicators limit values			35	30
Regulation stipulating noise indicators, limit values, methods assessing noise indicators, disturbance levels		Purely residential areas	55	45
	Open areas	Purely residential areas, trading- residential areas and children's playgrounds	60	50
and harmful living environment noise effects (OG RS № 75/10)		City centre, trading, crafts, administrative zones with flats, zones along motorways, state and city roads	65	55

Tabla 05



	Industrial, st transport rou buildings	orage and service areas and ites without residential	50	40		
Organisational unit	Novi Sad CHPP	Novi Sad CHPP Zrenjanin CHPP		ovica CHPP		
	Applicable noise levels					
Day	No measurements in 2018	No measurements in 2018	Measuring conc February	lucted on 21 st y 2018		
Night	No measurements in 2018	No measurements in 2018	Measuring conducted on 21 st February 2018			

5.2.6. Waste

Waste produced in 2018 is shown in Table 96 in line with the Serbian waste management regulations.



	Table 96												
PANONS	KE CHPPs BRANCH												
Waste ge	nerated in 2018												
	Official nomenclature of the Bules	dofining wasto			Organ								
å	categories, its testing and classificatio dated 10 th August 201	n, OG RS № 56/10 0	Unit	Novi Sad CHPP	Zrenjanin CHPP	Sremska Mitrovica CHPP	Total Panonske CHPP Branch	Note					
	Name	Index number			l								
1.	Used printer cartridges other than indicated under 08 03 17	08 03 18	t	0,047	0,000	0,041	0,088	Waste printer cartridges					
2.	Slag and dust from the boiler from co- incineration other than the one indicated under 10 01 14	10 01 15	t	0,000	0,000	169,910	169,910	Waste ash from biomass fired boiler					
3.	Mineral non-chlorinated hydraulic oils	13 01 10*	t	0,000	0,000	0,040	0,040	-					
4.	Mineral non-chlorinated motor oils, gear oils and lubricants	13 02 05*	t	0,000	0,000	0,110	0,110	-					
5.	Other motor oils, gear oils and lubricants	13 02 08*	t	0,300	0,000	0,000	0,300	Gearbox oil					
6.	Insulation and heat transfer non- chlorinated mineral oils	13 03 07*	t	1,400	0,000	0,000	1,400	Turbine oil					
7.	Other emulsions	13 08 02*	t	0,000	0,000	0,015	0,015	Oil - water					
8.	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing, contaminated by hazardous substances	15 02 02*	t	0,045	0,000	0,095	0,140	Waste oily adsorption agent - sawdust and wiping cloths					
9.	Absorbents, filter materials, wiping cloths and protective clothing other than those indicated under 15 02 02	15 02 03	t	0,000	0,000	0,679	0,679	Filter bags from biomass boiler bag filter					
10.	Used tires	16 01 03	t	0,000	0,600	0,000	0,600	Car tires					
11.	Aluminium	17 04 02	t	0,300	0,600	0,000	0,900	Aluminium sheet					
12.	Zinc	17 04 04	t	0,250	0,000	0,594	0,844	Galvanized sheet					
13.	Iron and steel	17 04 05	t	3,500	2,000	0,390	5,890	Different valves and fittings; Pipes; Valves					
14.	Cables other than those indicated under 17 04 10	17 04 11	t	0,000	0,000	0,007	0,007	Copper insulated cables					
15.	Insulation materials other than those indicated under 17 06 01 and 17 06 03	17 06 04	t	10,000	0,500	0,990	11,490	Waste mineral wool					



16.	Saturated or exhausted ion exchange resins	19 09 05	t	2,000	0,000	0,000	2,000	Waste ion exchange resins
17.	Plastics and rubber	19 12 04	t	0,000	0,000	1,020	1,020	Rubber from inclined conveyor belt
18.	Paper and cardboard	20 01 01	t	0,000	0,000	0,064	0,064	-
19.	Fluorescent tubes and mercury- containing waste	20 01 21*	t	0,122	0,300	0,016	0,438	Waste fluorescent tubes
20.	Discarded electrical and electronic equipment other than the one indicated under 20 01 21 and 20 01 23 and 20 01 35	20 01 36	t	0,000	0,000	0,013	0,013	-
21.	Plastics	20 01 39	t	0,000	0,000	0,059	0,059	Plastic hoses for sunflower husk suction

Note: Waste quantities presented here were determined by using free estimate. The actual quantities are determined when the waste is handed to authorised operaters who weigh it on a scale certified by authorised organisations. * hazardous waste

In 2018 at Panonske CHPPs Branch very small quantity was disposed of in accordance with the Law. Sold/delivered waste in 2018 is presented in Table 97.

	Table 97													
PANON	ISKE CHPPs BRANCH													
Deliver	ed waste in 2018													
Š	Official nomenclature of the Rules defining waste categories, its testing and classification, (OG RS № 56/10 dated 10.08.2010)		iste categories, lated 10.08.2010)		Zrenjanin CHPP	Sremska Mitrovica CHPP	Total Panonske CHPP Branch	Note						
	Name	Code			ļ									
1.	Waste printer cartridges other than the ones specified in 08 03 17	08 03 18	t	0,000	0,000	0,080	0,080	Waste printer cartridges						
2.	Slag and dust from the boiler from co- incineration other than the one indicated under 10 01 14	10 01 15	t	0,000	0,000	169,910	169,910	Waste biomass boiler ash						

5.3. Working Environment Monitoring, Safety and Health

Occupational Safety and Health Reports for 2017 include the following elements:

Working environment monitoring

-working environment noise measurements

- Safety
 - training
 - work injuries
- Health

5.3.1. Working Environment Monitoring

Working Environment Noise Measurements

Novi Sad CHPP

Working environment noise measurements in 2018 are shown in Table 98.

Zrenjanin CHPP

Working environment noise measurements were not conducted in 2018.

Sremska Mitrovica CHPP

Working environment noise measurements were not conducted in 2018.

PANONSKE CHPP BRANCH											
Working environment noise in 2018											
Organisational unit	Permissible noise level (dB(A))										
	Control room	51	85								
NOVI SAD CHPP	Turbine 2	82	85								
	Boiler 3, burners	83	85								
	-	-	85								
ZRENJANIN CHPP	-	-	85								
	-	-	85								
	-	-	85								
CHPP	-	-	85								
	-	-	85								

5.3.2. Occupational Safety

Training

Health and safety training – internal general OHS trainings are shown in Table 99.

		Table 99
PANONSKE CHPP BRANCH		
Training in 2018		
Organisational unit	Number of trained employees	Note-internal trainings
Main office	45	Due to amendments to the act regarding risk assessment, temporary part-time jobs
Novi Sad CHPP	165	Workplaces with increased risk Novi Sad CHPP, change of workplaces and hiring of new employees from Zrenjanin CHPP, temporary part-time jobs



Novi Sad CHPP	200	Hazards, harmfulness and code of conduct familiarization for contractors					
Novi Sad CHPP	50	Practical classes for students regarding hazards, harmfulness and code of conduct.					
Zrenjanin CHPP	130	Workplaces with increased risk, change of workplaces					
Zrenjanin CHPP	168	Workplaces with increased risk, workplaces without increased risk and change of workplaces.					
Zrenjanin CHPP	64	Familiarization of contractors with hazards, harmfulness, OHS measures and code of conduct					
Sremska Mitrovica CHPP	67	Workplaces with increased risk, change of workplace, transition from one workplace to another due to job vacancies, retirements					
Sremska Mitrovica CHPP	208	Familiarization of contractors with hazards, harmfulness, OHS measures and code of conduct					
Sremska Mitrovica CHPP	63	Practical classes for students regarding hazards, harmfulness and code of conduct.					

Other trainings in 2018 – external trainings are shown in Table 100.

PANONSKE CHHP BRANCH										
Other tra	inings in 2018									
No.	Type of training	Number of persons	Note							
1	OHS training – training and protection of workers while operating, maintanance and handling equipment and installations for explosion protection	8	Novi Sad CHPP Completed							
2	First aid training of workers	12	Novi Sad CHPP Completed							
1	OHS training – training and protection of workers while operating, maintanance and handling equipment and installations for explosion protection	5	Zrenjanin CHPP Completed							
2	First aid training of workers	8	Zrenjanin CHHP To be completed in the first half of 2019							
1	Training for operating the scaffoldings.	15	CHPP Sremska Mitrovica Completed							
2	Training for safe construction machinery operating (fork lift, ULT)	5	Zrenjanin CHHP							
3	Training for safe operating the HV and LV switchgear units	4	CHPP Sremska Mitrovica Completed							
4	Training for safe handling the crane for crane operater, the signaller and load binder	3	CHPP Sremska Mitrovica Completed							
5	OHS training – training and protection of workers while operating, maintanance and handling equipment and installations for explosion protection	5	CHPP Sremska Mitrovica Completed							

Work injuries

Table 101 provides work injuries data for 2018.



PANONSKE CHPPs BRANCH										
Work injuries in 2018										
	No. of	Injuries – Number of employees ratio								
Organizational unit	employees	Light	Serious	Fatalities	Total	%				
Head office	36	0	0	0	0	0				
Novi Sad CHPP	164	3	0	0	3	1,83				
Zrenjanin CHPP	123	1	1	0	2	1,63				
Sremska Mitrovica CHPP	76	0	0	0	0	0,00				
TOTAL: PANONSKE CHPPs BRANCH	399	4	1	0	5	1,25				

5.3.3. Health

Table 102 provides periodical examinations data for high-risk workplaces in Panonske CHPP in 2018. Public Procurement is in progress conducted by EPS - Medical examinations of high-risk workers.

										Tab	ole 102	
PANONSKE CHPPs BRANCH												
Work capability in 2018												
	of ees	Per	iodical e	xaminat	ions	Work capability						
Organizational unit	umber nploye	Referred to examination		Examined		Capable		Limited capability		Not capable		
	e N	N⁰	%	N⁰	%	N⁰	%	N⁰	%	N⁰	%	
Head office	36	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	
Novi Sad CHPP	164	137	83,54	136	99,27	86	63,24	49	36,03	1	0,74	
Zrenjanin CHPP	123	104	84,55	104	100,00	90	86,54	14	13,46	0	0,00	
Sremska Mitrovica CHPP	76	66	86,84	65	98,48	44	67,69	21	32,31	0	0,00	
TOTAL: PANONSKE CHPPs BRANCH	399	307	76,94	305	99,35	220	72,13	84	27,54	1	0,33	

5.4. Public complaints

There were no public complaints regarding the environment in 2018.



6. DJERDAP HPPS BRANCH

6.1. Overview and Status of Permits

Overview and status of permits, licences and other necessary approvals as well as new applications for obtaining or extending the valid permits and approvals in 2018 are shown in Table 103.

Table 103

DJERDAP HPPs BRANCH										
Overview and Status	of Permits in 2018									
Organisational unit	Obtained permits and approvals (number and date)	New applications for obtaining or extending the valid permits	Note							
DJERDAP 1 HPP	No new permits and approvals obtained for Djerdap 1 HPP Kladovo in 2018.	In 2018 there were no new applications for permit obtaining or extending for Djerdap 1 HPP Kladovo.	-							
DJERDAP 2 HPP	No new permits and approvals obtained for Djerdap 2 HPP Negotin in 2018.	Application for a permit for the construction of a canopy for the storage of waste material in Kusjak.	-							
PIROT HPP	 Decision of the City Administration of Pirot, Department for city planning, municipal residential business, construction and inspectorate business, No: 03-Y-351-3826/2018 dated 4th July 2018, which approves construction of support facility – canopy for the parkings of HPP Pirot Obtained location conditions of City Administration of Pirot, Department for city planning, municipal residential business, construction and inspectorate business No: 03-y-350/548-18 dated 3rd September 2018 for the construction concrete road bridge across the regulated channel of the Berilovačka river near inlet into the River of Nišava on cadastral parcels No. 4459/1 and 4151/1 KO Pirot - city 	-	-							
VLASINSKE HPPs	Decision on issuing a water permit for Vrla 1 HPP, Vrla 2 HPP, Vrla 3 HPP and Vrla 4 HPP, No. 325- 04-00532/2017-07 dated 26.06.2017. Decision on issuing a water permit for Lisina PSP, No. 325-04-000535/2017-07 dated 26.06.2017.	-	-							

6.2. Monitoring and Environmental Impact

Environmental protection of the Djerdap HPPs Branch during 2018 followed the defined procedures and other documents of the environmental management system (EMS).

6.2.1. Identified Negative Impact on the Flow and Ecological System under the Accumulation

During 2018 there were no registered negative impacts on the flow and ecological system under the accumulation in the Djerdap HPPs Branch.

6.2.2. Water

• Water amounts



Water used for hydropower generation, process and sanitary (waste) water did not exceed the permitted amounts. Amounts of allowed water and water used to generate electricity, along with water amounts discharged after electricity generation in 2018 are provided in Table 104.

Table 104

DJERD	DJERDAP HPPs BRANCH												
Water a	amounts in 2018												
			Permitted water	Discharged water amounts									
Organisational unit		Number of units	amounts (installed discharge per unit) m³/s	Water used for electricity generation in 201 m ³ /y x 10 ⁶	Process water m ³ /y x 10 ⁶ Sanitary water m ³ /y x 10 ³		Total discharged water m³/y x10 ⁶						
DJERD	AP 1 HPP	6	800	79.502,000	3.855	363,066	79.868,861						
DJERDAP 2 HPP		10	422	68.965,000	61,750	126,147	71.519,00						
PIROT HPP		2	22,5	284,41	0,043	1,451	284,454						
	Vrla 1	4	I and II – 8,1 III и IV - 10	177,397	1,782	7,300	177,404						
sdc	Vrla 2	2	I – 8,5 II - 10	215,843	1,120	3,700	215,846						
ISKE HI	Vrla 3	2	I – 8,5 II - 10	237,733	0,829	10,300	237,733						
VLASIN	Vrla	2	I – 8,4 II - 10	237,733	0,837	3,700	237,733						
	Lisina – pumping plant	2	I – 3,6 II – 3,6	90,080	0,682	3,500	90,083						

• Water quality

Following contractual obligations regarding wastewater management, Institute for Occupational Safety Novi Sad, executed sampling of wastewater from all PE EPS Djerdap HPPs Branch Kladovo facilities in all four quarters of 2018.

3 samples were taken from each of the Djerdap HPP Branch facilities from the following points:

- wastewater sample at the discharge point;
- surface water sample upstream from the facility;
- surface water sample downstream from the facility;

chemically and biologically analysed, while the results were interpreted in accordance with Regulation stipulating the limit values of pollutants in surface and ground waters and sediments, and the deadlines for their achievement (OG RS № 50/2012), Regulation setting the parameters of the ecological and chemical status of surface waters and the parameters of chemical and quantitative status of groundwater (OG RS № 74/2011), Regulation stipulating the limit values of pollutant emissions in water and deadlines for their achievement (OG RS № 67/2011 and 48/2012) and Water Classification Regulation (OG SFRY № 6/1978), Regulation classifying water of inter-republic watercourses, international waters and coastal waters of Yugoslavia (OG SFRY № 6/78), Decision defining maximum permissible concentrations of radionuclides and hazardous substances in inter-republic watercourses, international waters and coastal waters of Yugoslavia (OG SFRY № 8/78) and the Water Law (OG RS № 30/2010).

Results obtained by chemical and microbiological analysis of wastewater samples in 2018 are summarised in Table 105.



Table 105

DJERDAP HPPs BRANCH

Wastewater in 2018

		Wastev	water and s	urface wa	iter qu	ality testi	ng result	s for 201	8						
	ters		1 st quarter			2 nd quarter			3 rd quarte	r		4 th quarte	r		Test results comment and conclusion
Organisational unit	Testing parame (unit)	From the sewage system before	Surface water upstream from the facility	Surface water downstream from the facility	From the sewage system before	Surface water upstream from the facility	Surface water downstream from the facility	From the sewage system before discharge	Surface water upstream from the facility	Surface water downstream from the facility	From the sewage system before discharge	Surface water upstream from the facility	Surface water downstream from the facility	Limit values for surface water (class II)	(Review of chemical and bacteriological analysis of samples from the sewage system and surface water upstream and downstream of the facility and its impact on water class defined by Water Classification Regulation)
	MPN coliform bacteria (E. coli/1l)	-	2.4x10 ³	1.4 x10 ³	-	2.5 x10 ³	9x10 ³	-	7.9 x10 ²	7.9 x10²	-	1.5x10 ²	2.4x10 ²	1 x10² -1 x10²	In 1 st ·2 nd and 3 rd quarter, the measured values of tested parameters of upstream and downstream surface water samples are in accordance with defined values stigulated by
	Dissolved O ₂ (mg/l)	-	9.05	9.39	-	8.18	8.09	-	7.53	7.78	-	9.13	8.95	7	Regulation on Threshold Values of Pollutants in Surface Waters, Groundwaters and
	Suspended substances (mg/l)	3.8	5.2	6	14.2	<1	4.2	7.4	<1	<1	16.8	<1	<1	25	Sediment and Deadlines for their Achievement ("Official Gazette of RS", No. 50/2012). Based on part of analyzed microbiological parameters they match eco
DJERDAP 1 HPP	COD(mg/l)	17.4	14.1	7.3	27.2	<4	<4	4.8	<4	<4	49.7	5.8	<4.0	15	status class III – IV according to the Regulation on the parameters of ecological and chemical status of surface waters and
	BOD5(mg/l)	3.4	3	2.7	4.8	3.1	2.1	1.5	0.8	0.6	30	1.64	1.67	5	parameters of chemical status and quantitative status of groundwaters (Official
	pH value	8.05	7.78	7.98	7.74	8	8.04	7.41	7.6	7.62	7.45	8.04	7.99	6.5-8.5	Gazette of the RS 74/2011) In 4 th quarter based on obtained results for upstream and downstream surface water samples, it can be concluded that tested
	Total oil and grease (mg/l)	0.018	3.28	3.55	<0.01	2.21	2.32	<0.01	2.14	2.06	0.018	2.9	2.8	5	parameter regarding nitrites isn't in accordance with values defined by the aforementioned Regulation.



	MPN coliform bacteria (E. coli/1l)	-	-	-	-	-	-	-	-	-	-	88	1.6x10²	1 x10 ⁴ -1 x10 ⁴	The measured values of tested physical and
DJERDAP 2 HPP	Dissolved O ₂ (mg/l)	-	9.39	9.05	-	8.11	7.68	-	7.68	7.68	-	8.61	8.98	7	chemical parameters of surface water samples taken from the Danube River downstream of the Dierdan 2 HPP facilities
	Suspended substances (mg/l)	8.3	6,0	5.2	-	4.2	<1	1732	<1	<1	115	<1	<1	25	generally match class I, except TN and phosphates which belong to class II, BOD ₅ , COD and nitrites belong to class IV of water
	COD(mg/l)	43.8	7.3	14.1	-	<4	<4	565	<4	<4	534	15	5.4	15	surface. At the same location the measured
	BOD5(mg/l)	3.6	2.7	3.0	-	2.0	<0.5	320	<0.5	<0.5	380	2.4	1.5	5	class III of surface water, and content of
	pH value	7.37	7.98	7.78	-	8.03	7.86	6.68	7.86	7.86	7.32	8.04	8.03	6.5-8.5	faecal coliform bacteria were isolated.
	Total oil and grease (mg/l)	0.383	0.087	0.034	-	<0.01	<0.01	0.076	<0.01	<0.01	1949	0.594	0.036	5	
	MPN coliform bacteria (E. coli/1l)	-	-	-	-	3600	5000		3000	3000		18000	23000	1x10⁵ – 1x10⁵ cfu100	Analysed surface waters matches class III of water bodies. Based on analysed
	Dissolved O ₂ (mg/l)	-	-	-	-	7,86	7,70	-	7,92	8,20		9,09	9,43		microbiological parameters ecological and chemical status of surface waters and parameters regarding chemical and
PIROT HPP	Suspended substances (mg/l)	-	-	-	4,1	3.2	5,4	4,3	< 1,0	< 1,0	17,8	< 1,0	< 1,0		quantitative status of surface waters. By sampling the communal waste water, it was concluded that tested parameters are in
	COD(mg/l)	-	-	-	< 4,0	< 4,0	< 4,0	< 4,0	< 4,0	< 4,0	180	< 4,0	< 4,0		accordance with values stipulated by the Regulation on Threshold Values of Pollutants
	BOD5(mg/l)	-	-	-	< 5,0	0.6	1,1	< 5,0	0,6	0,7	60	0,6	0,7		in Surface Waters, Groundwaters and
	pH value	-		-	7,93	8,02	8,03	8,00	7,25	7,30	6,91	7,47	7,51		Sediment and Deadlines for their Achievement.
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	5	
VLASINSKE HPPs	MPN					40	40						40	40 4 403	Sample analysis established that the
VRLA 1 HPP	conform bacteria	-	-	-	-	40	40	-	-	-	-	80	40	40-4x10 ²	the legal requirements referred to in

PE EPS Environmental Report



	(E. coli/1I)														Regulation on Water Classification (Official
	Dissolved O ₂ (mg/l)	-	8,75	8,29	-	8,12	8,04	-	-	-	-	8,93	9,20	8	comply values stipulated by <i>Rulebook</i> on hazardous matters in waters (Official Gazette
	Suspended substances (mg/l)	-	6,40	7,20	-	3,70	1,20	-	-	-	-	2,00	5,00	10	no. 38/82) for class I and II. The tested samples predominantly match classes II and III of ecological potential, according to the Desculation on the perspectors of contagrical
	COD(mg/l)	-	8,00	9,00	-	4,20	4,20	-	-	-	-	4,20	4,00	-	and chemical status of surface waters and
	BOD5(mg/l)	-	3,50	3,40	-	1,90	1,80	-	-	-	-	0,60	O,5	2	parameters of chemical status and quantitative status of groundwaters (Official
	pH value	-	7,66	7,75	-	8,70	8,38	-	-	-	-	7,43	7,51	6.5-8.5	Gazette of the RS 74/2011).
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MPN coliform bacteria (E. coli/1l)	-	-	-	-	40	2,9X10²	-	-	-	-	40	40	40-4x10²	Sample analysis established that the measured values of the samples comply with the legal requirements referred to in
	Dissolved O ₂ (mg/l)	-	8,29	8,51	-	8,04	8,26	-	-	-	-	9,20	9,45	8	Regulation on Water Classification (Official Gazette of RS no. 6/68) for class I and
VLASINSKE HPPs VRLA 2 HPP	Suspended substances (mg/l)	-	7,20	20,30	-	1,2	1,5	-	-	-	-	5,00	4,50	10	hazardous matters in waters (Official Gazette no. 38/82) for class I and II. The tested samples predominantly match classes II and
	COD(mg/l)	-	9,00	11,00	-	4,2	4,0	-	-	-	-	4,00	5,20	-	III of ecological potential, according to the Regulation on the parameters of ecological
	BOD5(mg/l)	-	3,40	3,50	-	1,8	0,9	-	-	-	-	O,5	1,00	2	and chemical status of surface waters and
	pH value	-	7,75	7,54	-	8,38	7,73	-	-	-	-	7,51	7,58	6.5-8.5	parameters of chemical status and quantitative status of groundwaters (Official
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-	Gazette of the RS 74/2011
VLASINSKE HPPs VRLA 3 HPP	MPN coliform bacteria (E. coli/1l)	-	-	-	-	2,9X10²	80	-	-	-	-	40	80	40-4x10²	Sample analysis established that the measured values of the samples comply with the legal requirements referred to in Regulation on Water Classification (Official



	Dissolved O ₂ (mg/l)	-	8,51	10,39	-	8,26	8,17	-	-	-	-	9,45	9,73	8	Gazette of RS no. 6/68) for class I and comply values stipulated by Rulebook on		
	Suspended substances (mg/l)	-	20,30	10,50	-	1,5	1	-	-	-	-	4,50	7,00	10	hazardous matters in waters (Official Gazette no. 38/82) for class I and II. The tested samples predominantly match classes II and III of ecological potential, according to the		
	COD(mg/l)	-	11,00	10,00	-	4,0	4,0	-	-	-	-	5,20	4,60	-	Regulation on the parameters of ecological and chemical status of surface waters and		
	BOD5(mg/l)	-	3,50	3,90	-	0,9	1,4	-	-	-	-	1,00	0,70	2	parameters of chemical status and quantitative status of groundwaters (Official		
	pH value	-	7,59	7,59	-	8,38	8,31	-	-	-	-	7,58	7,49	6.5-8.5	Gazette of the RS 74/2011)		
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-			
	MPN coliform bacteria (E. coli/1l)	-	-	-	-	80	80	-	-	-	-	80	1,20	40-4x10²	Sample analysis established that the measured values of the samples comply with the legal requirements referred to in		
	Dissolved O ₂ (mg/l)	-	10,39	8,70	-	8,17	7,97	-	-	-	-	9,73	9,28	8	Regulation on Water Classification (Official Gazette of RS no. 6/68) for class I and		
VLASINSKE HPPs VRLA 4 HPP	Suspended substances (mg/l)	-	10,50	12,30	-	1	2,8	-	-	-	-	7,00	2,50	10	hazardous matters in waters (Official Gazette no. 38/82) for class I and II. The tested samples predominantly match classes II and		
	COD(mg/l)	-	10,00	8,00	-	4,0	4,2	-	-	-	-	4,60	5,60	-	III of ecological potential, according to the Regulation on the parameters of ecological		
	BOD5(mg/l)	-	3,90	2,50	-	1,4	1,7	-	-	-	-	0,70	0,90	2	and chemical status of surface waters and		
	pH value	-	7,59	7,56	-	8,31	8,2	-	-	-	-	7,49	7,58	6.5-8.5	quantitative status of groundwaters (Official		
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-	Gazette of the RS 74/2011)		
VLASINSKE HPPs LISINA PSP	MPN coliform bacteria (E. coli/1l)	-	-	-	-	80	40	-	-	-	-	80	80	40-4x10 ²	Sample analysis established that the measured values of the samples comply with the legal requirements referred to in Regulation on Water Classification (Official		



	Dissolved O ₂ (mg/l)	-	8,78	8,75	-	8,11	8,12	-	-	-	-	9,49	8,93	8	Gazette of RS no. 6/68) for class I and comply values stipulated by <i>Rulebook</i> on
	Suspended substances (mg/l)	-	6,80	6,40	-	1,4	3,7	-	-	-	-	1,00	2,00	10	hazardous matters in waters (Official Gazette no. 38/82) for class I and II. The tested samples predominantly match classes II and III of ecological potential, according to the
	COD(mg/l)	-	6,00	8,00	-	4,0	4,2	-	-	-	-	4,00	4,20	-	Regulation on the parameters of ecological
	BOD5(mg/l)	-	3,10	3,50	-	1,2	1,9	-	-	-	-	0,50	0,60	2	parameters of chemical status and
	pH value	-	7,37	7,66	-	7,71	8,7	-	-	-	-	7,68	7,43	6.5-8.5	quantitative status of groundwaters (Official Gazette of the RS 74/2011)
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-	



6.2.3. Waste

Waste management followed the defined procedures. Waste amounts generated in 2018 are shown in Table 106.

										Table 106
DJERDA	P HPPs BRANCH									
Generate	ed Waste in 2018									
Ne	Official nomenclature of the Rules defining waste categories, its testing and				Orç	Total				
	10.08.2010)	To Daleu	Unit	Djerdap 1 HPP	Djerdap 1 HPP Djerdap 2 HPP Pirot HPP Vlasinske HPPs Pozarevac					Note
	Name Index number					Amo	ounts			
1.	Waste containing mercury	06 04 04*	kg	0,042	0,000	0,000	0,000	0,000	0,042	Mercury
2.	Waste paint and varnish containing organic solvents or other hazardous substances	08 01 11*	t	0,293	0,002	0,000	0,000	0,000	0,295	Waste paint in solid state (expired)
3.	Waste printer cartridges other than the ones specified in 08 03 17	08 03 18	t	0,284	0,000	0,050	0,050	0,000	0,384	Toner cartridges and ink cartridges
4.	Waste adhesives and sealants containing organic solvents or other hazardous substances	08 04 09*	t	0,733	0,000	0,000	0,000	0,000	0,733	Waste adhesives
5.	Used wax and grease	12 01 12*	t	0,290	0,120	0,000	0,000	0,000	0,410	Waste lubricating grease
6.	Mineral non-chlorinated hydraulic oils	13 01 10*	t	1,905	0,000	0,085	0,000	0,000	1,990	Waste hydraulic oil
7.	Mineral non-chlorinated engine oils, gearbox oils and lubricants	13 02 05*	t	1,383	0,180	0,110	0,000	0,000	1,673	Motor oil
8.	Mineral non-chlorinated oils used for insulation and heat transfer	13 03 07*	t	65,394	0,000	0,180	3,900	0,000	69,474	Waste transformer oil
	Other emulsions	13 08 02*								
9.	Oiled water from the oil / water separator	13 05 07*	t	8,234	7,750	0,050	0,570	0,000	16,604	Oil emulsion (mixed with adsorbents and other impurities)



	Mineral non-chlorinated	13 01 10*		4,858	0,000	0,180	0,000	0,000	5,038	Waste turbine oil
10.			t	0.000	0.000	0.000	0.000	0.000		
	Wastes not otherwise specified	13 08 99*		0,290	0,000	0,000	0,000	0,000	0,290	Waste grease
		45.04.00		0,101	0,000	0,000	0,000	0,000	0,101	
11.	Wooden packaging	15 01 03	t	0,000	0,320	1,276	0,000	0,000	1,596	Waste wooden packaging
12.	Packaging containing residues of hazardous substances or contaminated by hazardous substances	15 01 10*	t	0,000	0,070	0,980	0,000	0,000	1,050	Chemicals packaging
13.	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	0,115	1,130	0,139	1,408	0,000	2,792	Cloths, adsorbents contaminated by hydrocarbons
14.	Used tires	16 01 03	t	5,073	2,730	0,750	0,688	0,000	9,241	Worn tires
15.	Plastics Plastic packing	16 01 19 15 01 02	t	2,039	0,000	0,428	0,035	0,000	2,502	Waste plastics
16.	Organic wastes containing hazardous substances	16 03 05*	t	0,000	0,000	0,000	0,149	0,000	0,149	Waste construction additives
17.	Depleted liquids used as catalysts	16 08 06*	t	0,113	0,000	0,000	0,000	0,000	0,113	Waste categorized chemicals
			t	184,419	0,000	0,533	0,204	0,000	185,156	Copper
18.	Copper, bronze, brass	17 04 01	t	0,759	0,000	0,000	0,000	0,000	0,759	Brass
			t	0,600	0,000	0,000	0,000	0,000	0,600	Bronze
19.	Cables other than those specified in 17 04 10	17 04 11	t	8,862	0,070	0,500	2,299	0,000	11,731	Copper cable
20	Aluminium	17 04 02	ŧ	/ 708	0.000	0.047	0.000	0.000	1 815	Aluminium
20.	Ferrous metals	19 12 03		т, гоо	0,000	0,077	0,000	0,000	7,070	Aluminium cable
				0,912	0,000	0,000	0,000	0,000	0,912	Steel wires
01	liven and steel	17 04 05		376,219	0,000	0,000	0,070	0,000	376,289	Steel sheets
21.	Iron and steel	17 04 05	t	0,470	0,000	0,000	0,000	0,000	0,470	Prochrome
				795,772	9,658	0,500	8,370	0,000	814,250	Waste iron



				1,935	0,000	0,020	0,000	0,000	1,955	Metal scrapings	
22.	Construction materials containing asbestos	17 06 05*	t	0,003	0,099	0,000	0,000	0,000	0,102	Asbestos pipes, asbestos cement and asbestos cloth	
23.	Insulating materials other than those specified in 17 06 01 and 17 06 03	17 06 04	t	0,163	0,000	0,000	0,000	0,000	0,163	Mineral wool	
24.	Paper and cardboard	20 01 01	t	0,097	0,000	0,300	0,000	0,000	0,397	Waste paper material	
25.	Glass	20 01 02	t	0,060	0,000	0,040	0,000	0,000	0,100	Waste glass	
26.	Fluorescent tubes and other waste containing mercury	20 01 21*	t	0,683	0,055	0,025	0,175	0,000	0,938	Waste fluorescent lamps	
27.	Batteries and accumulators specified in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing such batteries	20 01 33*	t	2,038	0,385	0,035	0,694	0,000	3,152	Waste lead batteries	
	Lead batteries	16 06 01*									
	Discarded electrical and electronic equipment containing hazardous components other than the ones specified in 20 01 21 and 20 01 23	20 01 35		20.570	2 522	0.450	0.504	0.700	27.044	Disposed electrical and	
28.	Discarded equipment containing hazardous components other than the ones specified from 16 02 09 up to 16 02 12	16 02 13*	t	32,576	3,532	0,450	0,584	0,702	37,844	electronic equipment and parts	
29.	Wood other than the one specified in 20 01 37	20 01 38	t	1.955,750	0,320	0,000	0,320	0,000	1.956,390	Waste wood and plywood	

The waste generated by the hydroelectric power plants facilities of the Djerdap HPPs during the year is temporarily stored and sold to authorised operators in accordance with the Regulation stipulating storage, packaging and labelling methods of hazardous waste (OG RS № 92/10 dated 05.12.2010), Regulation stipulating categories, testing and classification of waste (OG RS № 56/10 dated 10.08.2010), Regulation stipulating the conditions and manner of collection, transportation, storage and treatment of waste used as secondary raw material or for energy generation (OG RS № 98/10 dated 24.12.2010), Regulation stipulating the conditions, manner and procedure for


waste oil management (OG RS № 71/10 dated 04.10.2010) and the Regulation stipulating the methods and procedures for waste management containing asbestos (OG RS № 74/10 dated 15.10.2010).

Waste amounts delivered to authorized operators in 2018 are as follows in Table 107. For all types of hazardous waste (waste marked with star after the code), the characterization of the waste was done by the authorized laboratories, i.e. each type of hazardous waste has a Waste Examination Report

Table 107

DJERDA	DJERDAP HPPs BRANCH										
Waste d	elivered in 2018									-	
	Official nomenclature of the Rules defining waste categories, its testing and classification (OG RS № 56/10 dated 10.08.2010)				0	rganisational	unit		Total		
N⁰			Unit	Djerdap 1 HPP	Djerdap 2 HPP	Pirot HPP	Vlasinske HPPs	SCM Pozarevac		Note	
	Name	Index number				Ar	nounts				
1.	Other organic solvents, washing liquids and essential liquids	07 01 04*	t	0,000	0,220	0,000	0,000	0,000	0,220	ISCM ropyl alcohol, toluene	
2.	Waste paint and varnish containing organic solvents or other hazardous substances	08 01 11*	t	1,095	0,447	0,000	0,000	0,000	1,542	Waste color in solid state (expired deadline)	
3.	Used wax and grease	12 01 12*	t	0,107	0,120	0,000	0,000	0,000	0,227	Waste grease	
4.	Other fuels (including mixtures)	13 07 03*	t	0,380	0,000	0,000	0,000	0,000	0,380	Oil fuel	
5.	Gasoline	13 07 02*	t	0,000	0,000	0,000	0,230	0,000	0,230	Gasoline with water and sediment	
6.	Other fuels (including mixtures)	13 07 03*	t	3,800	0,000	0,000	0,000	0,000	3,800	Waste petroleum mixed with water	
7.	Other emulsions	13 08 02*	t	16,830	7,750	0,000	1,157	0,000	25,737	Oil emulsion (mixed with adsorbents and other impurities)	
8.	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	0,097	2,165	0,061	0,786	0,000	3,109	Cloths, adsorbents contaminated hydrocarbons	



9.	Building materials containing asbestos	17 06 05*	t	0,083	2,560	0,000	0,000	0,000	2,643	Waste asbestos cloth
				184,419	0,000	0,533	4,876	0,000	189,828	Copper
10.	Copper, bronze, brass	17 04 01	t	0,540	0,000	0,000	0,000	0,000	0,540	Brass
				6,240	0,014	0,000	0,000	0,000	6,254	Bronze
				3,500	0,000	0,000	0,000	0,000	3,500	Steel wires
				328,400	0,230	0,033	0,000	0,000	328,663	Steel sheets
				1,940	0,000	0,000	0,000	0,000	1,940	Prochrome
11.	Iron and steel	17 04 05	t	1175,180	13,724	2,121	39,620	6,440	1.237,085	Waste iron
				8,420	1,102	0,100	0,000	0,000	9,622	Metal scrapings
				0.000	0 5 4 4	0.000	0.000	0.000	0.544	Tools – waste
				0,000	0,544	0,000	0,000	0,000	0,544	material
12.	Cables other than those specified in 17 04 10	17 04 11	t	27,340	0,100	0,000	0,744	0,000	28,184	Copper cable
13.	Waste printer cartridges other than the ones specified in 08 03 17	08 03 18	t	0,400	0,015	0,065	0,000	0,000	0,480	Toner cartridges and ink cartridges
14.	Glass	20 01 02	t	4,660	0,000	0,000	0,000	0,000	4,660	Waste glass
15.	Wood other than the one specified in 20 01 37	20 01 38	t	118,850	0,280	0,000	0,000	0,665	119,795	Waste wood and plywood
40	Aluminium	17 04 02	1	5,480	0,000	0,047	0,000	0,000	5,527	Aluminium
16.	Ferrous metals	19 12 03	τ	0,000	1,373	0,000	0,000	0,000	1,373	Aluminium cable
17.	Insulating materials other than those specified in 17 06 01 and 17 06 03	17 06 04	t	1,940	0,000	0,000	0,000	0,000	1,940	Mineral wool
18.	Used tires	16 01 03	t	17,890	7,820	0,408	1,129	0,000	27,247	Worn tires
19.	Paper and cardboard	20 01 01	t	5,260	0,000	0,000	0,000	0,000	5,260	Waste paper material
20	Plastics	16 01 19		1 900	0.000	0.402	0.000	0.002	2 205	Wests plastics
20.	Plastic packing	15 01 02	ι	1,000	0,000	0,403	0,000	0,002	2,205	waste plastics
21.	Batteries and accumulators specified in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing such batteries	20 01 33*	t	3,297	0,040	0,220	0,315	0,000	3,872	Waste lead batteries
1		10 00 01	1		1			1	1	



22.	Waste containing mercury	06 04 04*	t	0,042	0,0000	0,000	0,000	0,000	0,042	Mercury
23	Discarded electrical and electronic equipment containing hazardous components other than the ones specified in 20 01 21 and 20 01 23	20 01 35*	+	43 740	4 466	0.970	7 180	0.000	56 356	Disposed electrical and electronic
23.	Discarded equipment containing hazardous components other than the ones specified from 16 02 09 up to 16 02 12	16 02 13*	l		4,400	0,370	7,100	0,000	30,330	equipment and parts
24.	Fluorescent tubes and other waste containing mercury	20 01 21*	t	0,620	0,429	0,000	0,004	0,000	1,053	Waste fluorescent lamps
25.	Waste adhesives and sealants containing organic solvents or other hazardous substances	08 04 09*	t	0,715	0,520	0,000	0,000	0,000	1,235	Waste adhesives
26.	Depleted liquids used as catalysts	16 08 06*	t	0,131	0,000	0,000	0,000	0,000	0,131	Waste categorized chemicals
27.	Mineral non-chlorinated oils used for insulation and heat transfer	13 03 07*	t	80,112	0,135	0,160	14,850	0,000	95,257	Waste transformer oil
	Mineral non-chlorinated hydraulic oils	13 01 10*	t	21,060	0,720	0,140	0,000	0,000	21,920	Waste turbine oil
28.	Wastes not otherwise specified	13 08 99*	t	0,464	0,129	0,000	0,000	0,000	0,593	Compressor oil
29.	Mineral non-chlorinated hydraulic oils	13 01 10*	t	7,005	0,000	0,000	0,000	0,000	7,005	Waste hydraulic oil
30.	Mineral non-chlorinated engine oils, gearbox oils and lubricants	13 02 05*	t	2,752 0.464	1,125 0,300	0,000	0,000	0,000	3,877 0 764	Motor oil Gearbox oil
31.	Wooden packaging	15 01 03	t	0,000	0,280	1,325	0,000	0,000	1,605	Waste wooden packaging
32.	Packaging containing residues of hazardous substances or contaminated by hazardous substances	15 01 10*	t	0,000	0,017	0,980	0,000	0,000	0,997	Chemicals packaging



6.2.4. Environmental Noise Measurement

Noise in the environment (near the electric power facilities operated by the Djerdap HPPs) has not been measured, because the facilities are dislocated from the settlement and as such do not threaten the environment.

6.3. Working Environment Monitoring, Occupational Safety and Health Protection

Occupational Safety and Health Protection Reports in 2018 include the following elements:

Working Environment Monitoring

-noise measurements in the working environment

Occupational Safety

- training of employees
- occupational injuries

Health Protection

6.3.1. Working Environment Monitoring

Noise measurements in the working environment

In 2018, measurements of physical hazards during the summer period were carried out by the company *TEHPRO Belgrade Ltd*. in the working environment in the organizational units of Djerdap 1 HPP, Djerdap 2 HPP, Pirot HPP, Vlasinske HPPs, SCM Požarevac and DMR Belgrade.

NOISE IN THE WORKING ENVIRONTMENT: Djerdap 1 HPP – measured noise values at 25 points in the working environment were above the normative values permitted by the Regulations on Measures and Standards of Workplace Noise Protection at Work ("Official Gazette of RS", No. 96/2011 and 78/2015) or the standards SRPS EN ISO 9612:2016 and SRPS EN ISO 11690-1:2012. Djerdap 2 HPP - measured noise values at 11 points in the working environment were above the normative values. At locations of Pirot HPP, Vlasinske HPPs, SCM Požarevac and DMR Belgrade measured noise values in the working environment were below or in the normative values permitted by the Regulations on Measures and Standards of Workplace Noise Protection at Work ("Official Gazette of RS", No. 96/2011 and 78/2015) or the standards SRPS EN ISO 9612:2016 and SRPS EN ISO 11690-1:2012. Djerdap 2 HPP - measured noise values at 11 points in the working environment were above the normative values. At locations of Pirot HPP, Vlasinske HPPs, SCM Požarevac and DMR Belgrade measured noise values in the working environment were below or in the normative values permitted by the Regulations on Measures and Standards of Workplace Noise Protection at Work ("Official Gazette of RS", No. 96/2011 and 78/2015) or the standards SRPS EN ISO 9612:2016 and SRPS EN ISO 11690-1:2012. Noise measurement was carried out by TEHPRO – Company for services in area of safety, Belgrade Ltd.

VIBRATIONS: Measured values at all locatons are in accordance with Regulations on Measures and Standards of Workplace Vibration Protection at Work.

INTENSITY OF ELECTRIC AND MAGNETIC FIELD, or, electromagnetic radiation at all locations is in accordance with Regulations on Measures and Standards of Workplace Electromagnetic Field Protection at Work and Guidelines of *International Commission* on *Non-Ionizing Radiation Protection*.

6.3.2. Occupational Safety

Training

Specific training of health protection and occupational safety for the employees has been conducted under the Training program, including both theoretical and practical workshops. During 2018 the following types of training were:



0	Visitors training	790
0	Fire protection training	302
0	Contractors' employees training (EHSP 0.06 procedure)	1225
0	Training of students and pupils on practical classes	73
0	Training for safe work with the equipment	129
0	IMS training	94

Introduction to the dangers and hazards, i.e. the risk factors, in the Branch of Djerdap HPP-Kladovo is carried out in accordance with the Regulations on Safety and Health at Work and the Risk Assessment Act. The same applies to the contractors with whom a special agreement is signed regarding the implementation of occupational safety and health measures during the performance of contractual works in a common according to the law.

The number of employees trained in the field of occupational health and safety is given in Table 108.

					Table108				
DJERDAP HPPs BRANCH									
Training of employees in 2018									
		For tr	aining	Trai	Trained				
Organisational unit	Number of employees	Number	%	Number	%				
Djerdap 1 HPP	362	314	86,74	209	66,56				
Djerdap 2 HPP	177	51	28,81	50	98,04				
Pirot HPP	36	36	100,00	36	100,00				
Vlasinske HPPs	116	74	63,79	74	100,00				
SCM Pozarevac	24	24	100,00	19	79,17				
DMR Belgrade	17	17	100,00	15	88,24				
TOTAL: DJERDAP HPPs BRANCH	732	516	70,49	403	78,10				

Work injuries

Table 109 provides occupational injuries in 2018.

Table 109

DJERDAP HPPs BRANCH									
Occupational injuries in 2018									
Organisational unit	Number of employees	Injuries in relation to the number of employees							
		Light	Severe	Fatal	Total	%			
Djerdap 1 HPP	362	6	2	0	8	2,21			
Djerdap 2 HPP	177	0	0	0	0	0,00			
Pirot HPP	36	0	0	0	0	0,00			
Vlasinske HPPs	116	1	0	0	1	0,86			
SCM Pozarevac	24	0	1	0	1	4,17			
DMR Belgrade	17	0	0	0	0	0,00			
TOTAL: DJERDAP HPPs BRANCH	732	7	3	0	10	1,37			

6.3.3. Health

During 2018, periodical medical examinations were carried out for the employees working at high risk jobs of the Djerdap 1 HPP Branch by the *Healthcare Center Vizim*- Belgrade.

Table 110 shows the data on the results of periodical medical examinations for the employees of the Djerdap HPPs Branch.



Tabla 110

DJERDAP HPPs BRANCH												
Work ability and Health of employees in 2018												
Periodical examination Work capability												
Organisational unit	Number of employees	For medical examination		Exam	ined	Сара	ible	Limit capab	ed ility	Not ca	apable	
		Number	%	Number	%	Number	%	Number	%	Number	%	
Djerdap 1 HPP	362	167	46,13	167	100,00	164	98,20	6	3,59	3	1,80	
Djerdap 2 HPP	177	119	67,23	119	100,00	119	100,00	7	5,88	0	0,00	
Pirot HPP	36	17	47,22	17	100,00	17	100,00	15	88,24	0	0,00	
Vlasinske HPPs	116	84	72,41	84	100,00	84	100,00	0	0,00	0	0,00	
SCM Pozarevac	24	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	
DMR Belgrade	17	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	
TOTAL: Djerdap HPPs Branch	732	387	52,87	387	100,00	384	99,22	28	7,24	3	0,78	

6.4. Public Complaints

Public complaints in 2018 are shown in Table 111.

Table 111

DJERDAP HPPs BRANCH						
Public complaints in 2018						
Organisational unit	Complaint					
Pirot HPP	On local portal "plusonline.rs", a text was published with the following headline: 'Zavojsko lake is slowly disappearing! "Pirot's electricity" still "travels" to Belgrade. Pirot HPP only follows orders! For how much longer?!'. A letter with the same topic was sent to the Driector of PR and the answer was sent back.					
	Inspection supervision was conducted following the complaint of Irina Bajramović with the subject of the control of water discharge into Zavojsko lake, and Official Note was made by the inspector.					



7. DRINSKO-LIMSKE HPPS BRANCH

The Drinsko-Limske HPPs Branch comprises the following hydropower plants:

BAJINA BAŠTA HPPs:

- Bajina Bašta HPP
- Bajina Bašta PSHPP
- Vrelo SHPP

ZVORNIK HPP:

- Zvornik HPP
- Radaljska Banja SHPP

ELEKTROMORAVA HPPs:

- Međuvršje HPP
- Ovčar Banja HPP

LIMSKE HPPs:

- Uvac HPP
- Kokin Brod HPP
- Bistrica HPP
- Potpeć HPP

7.1. Overview and Status of Permits

Overview and status of permits, licences and other necessary approvals as well as applications for obtaining new ones or extending the valid permits and approvals in 2018 are shown in Table 112.

Table	1	12	
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DRINSKO-LIMSKE HPPs BRANCH									
Overview and Status of Permits in 2018									
Organisational unit	Obtained permits and approvals (number and date)	Applications for obtaining new ones or extending the valid permits	Note						
BAJINA BAŠTA HPPs	BAJINA BAŠTA HPPs								
Bajina Bašta HPP	Water permit for using water from both HPP and PS HPP Bajina Bašta reservoirs for electricity production No. 325-04-010208/2018-07 dated 14.12.2018	No new applications	The permit is issued for a period of 5 years.						
Bajina Bašta PSHPP	 Water permit for using water from both HPP and PS HPP Bajina Bašta reservoirs for electricity production No. 325-04-010208/2018-07 dated 14.12.2018 Building permit for construction of the support structure in order to expand the switchyard in PS HPP Bajina Bašnta No. 351-02-00120/2018-07 dated 16.11.2018 	 Water permit for Kruščica reservoir Location requirements for the Basic Design for construction of the water supply section for Jasikovice settlement. 	The permit is issued for a period of 5 years						



Vrelo SHPP	-Location requirements for rehabilitation and upgrading of the existing PS HPP Bajina Bašta for installation of static frequency converter No. ROP-MSGI- 21134/LOCH-2/2018 dated 04.10.2018						
ELEKTROMORAVA HPPs							
ELEKTROMORAVA HPPs	ELEKTROMORAVA HPPs	ELEKTROMORAVA HPPs					
Ovčar Banja HPP	Ovčar Banja HPP	Ovčar Banja HPP					
ZVORNIK HPP							
Zvornik HPP	No new permits obtained in 2018	No new applications					
Radaljska Banja SHPP							
LIMSKE HPPs							
Kokin Brod HPP	No new permits obtained in 2018	No new applications					
Uvac HPP	No new permits obtained in 2018	No new applications					
Bistrica HPP	No new permits obtained in 2018	No new applications					
Potpeć HPP	Revision of the Decision on issuing a water permit, No.: 325-04-00290/2017-07 dated 17.09.2018	No new applications					
Miscellaneous							

7.2. Monitoring and Environmental Impact

In 2018 Drinsko - Limske HPPs Branch had the re-certification audit according to the requirements of the ISO standard 14001: 2015. The re-certification audit was performed on 8th August 2018. The results have shown that Drinsko – Limske HPPs Branch continuously maintain and improve their integrated management system in accordance with the ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007 standards' requirements.

In the period 27th - 28th November 2018, Drinsko – Limske HPPs Branch was subjected to the first supervisory audit for the information security management system in accordance with the requirements of ISO/IEC 27001:2013.

The successful audit was performed by SGS (Systems & Services Certification Zurich - Switzerland).

7.2.1. Identified Negative Impacts on the Flow and Ecological System below the Accumulation

he identified negative impacts in the flows downstream the dams are mainly twofold: with very low water levels (low discharge) caused by annual climate and meteorological conditions and otherwise, when there are very large inflows, there is a tendency to realize transfer of hydro power with as higher as possible efficiency through the planning of electricity production.

7.2.2. Water

• Water amounts

Utilization of water for hydropower generation, process and sanitary water did not exceed the permitted amounts. Amounts of permitted and amounts of water used for electricity generation, as well as amounts of water discharged after electricity generation in 2018 are provided in Table 113.



DRINSKO – LIMSKE HPPs BRANCH										
Water amounts in 20	18									
			Permitted water	Discharged water amounts						
Organisational unit		Number of units	amounts (installed discharge per unit) m³/s	Water used for electricity generation in 2018 m³/year x 10 ⁶	Process water m³/year x 10 ⁶	Sanitary water m³/year x 10³	Total discharged water m³/year x10 ⁶			
BAJINA BAŠTA HPP		4	175	11.269	-	59,832	11.844			
BAJINA BAŠTA PSHPP		2	55	575	-	-	-			
Vrelo SHPP		1	0,74	-	-	-	-			
ZVORNIK HPP		2	170	10 154 2	0.0122	2.1	10 154 21			
		1	150	10.154,2	0,0122	Ζ,Ι	10.154,21			
Radaljska Banja SHPP (from February 2018 in revitalization)		1	0,4	0,0985	-	-	0,0985			
EJEKTROMORAVA	Međuvršje HPP	3	I-19,5 II-30 III-3,75	823,500	0,0095907	0,6	823,5101907			
	Ovčar Banja HPP	2	I-19,5 II-30	818,462337	0,0070018	0,5	818,4698388			
	Uvac HPP	1	43	344,102	0,357	0,1	344,459			
	Kokin Brod HPP	2	18,7	437,265	1,627	0,1	438,892			
LIMSKE HPPs	Bistrica HPP	2	18	491,434	2,297	0,1+ 2,451(drinking water for Priboj)	496,182			
	Potpeć HPP	3	55	2517,288+89,296 spills	4,879	0,1	2611,463			

• Water Quality

Pursuant to the contractual obligations regarding the control management of wastewater and surface water from the riverflows and accumulations, Occupational Safety Institute in 2018 conducted the sampling of waste and surface waters from all power plants operating within the Drinsko – Limske HPPs Branch.

The sampling was made for four quarters of 2018. The following number of samples was taken: Bajina Bašta HPP 11 samples, Limske HPPs 12 samples, Elektromorava HPP 6 samples and Zvornik HPP 3 samples as follows:

- wastewater sample
- surface water sample upstream from the facility
- surface water sample downstream from the facility

The water samples were chemically and biologically analysed, while the results were interpreted in accordance with Regulation on stipulating pollutants limit values in surface and ground waters and sediments, and the deadlines for their achievement (OG RS № 50/2012), Regulation on stipulating hazardous substances in water (OG RS № 31/1982), Water Classification Regulation and Watercourse Categorisation Regulation (OG SFRY № 5/1968). The wastewater and surface water quality test results are presented in Table 114.



DRINSKO – LIMSKE HPPs BRANCH

Water quality in 2018

							Wastewa	ater and	surface	water qu	ality tes	sting resu	Its for 20	18	
			1 st quarte	r	2	end quarter	r	3	Brd quarte	r	_	4 th quarte	er		Test results comment and
Organisational unit	Testing parameters (unit)	From the sewage system before discharge	Surface water upstream from the facility	Surface water downstream from the facility	From the sewage system before discharge	Surface water upstream from the facility	Surface water downstream from the facility	From the sewage system before discharge	Surface water upstream from the facility	Surface water downstream from the facility	From the sewage system before discharge	Surface water upstream from the facility	Surface water downstream from the facility	Reference values	conclusion (Comment on chemical and bacteriological analysis of the samples from the sewage system and surface water upstream and downstream of the facility and its impact on water class defined by Water Classification Regulation)
	MPN coliform bacteria (E. coli/1I)	-	2,2x10²	1,9x10 ²		35	2,9x10²	-	6,2x10²	1x10²	3,5x10 ³	³ 4,1x10 ³	3x10 ³	-	
BAJINA BAŠTA HPP	Dissolved O ₂ (mg/l)	4,68	7,89	7,98	4,8	8,19	8,06	4,46	7,58	9,14	9,72	9,77	9,47	мин. 7,0	
	Suspended substances (mg/l)	25,4	<1	<1	14,1	<1	<1	4,5	<1	<1	4	<1	<1	25	Ine Drina River belongs to Class II. The tested parameters meet the values defined by the
	COD (mg/l)	26	<4	<4	40,9	<4	<4	40	<4	<4	13,3	8,21	8,16	15	Regulation.
	BOD₅ (mg/l)	8,8	0,3	0,5	18	1,5	1	12	0,9	0,9	3,6	<0,5	<0,5	5	
	pH value	7,7	8,06	8,07	7,77	8,48	8,17	7,63	7,92	7,93	7,9	8,21	8,16	6,8-8,5	
_	Total oil and grease (mg/l)	-	-	-		-	-	-	-	-	-	-	-	-	
ZVORNIK HPP	MPN coliform bacteria (E. coli/1l)	-	6,1x10 ²	9,2x10 ³	-	1,1x10 ²	1,3x10 ²	-	2x10 ³	2,1x10	3 _	3,5x10 ³	4,1x10 ³	-	The Drina River belongs to Class
	Dissolved O ₂ (mg/l)	-	7,86	7,33	-	8,82	8,88	-	8,85	8,46	-	9,72	9,77	мин. 7,0	the values defined by the Regulation.
	Suspended	•	15,8	17,5	-	<1	<1	•	<1	<1	-	<1	<1	25	



	substances (mg/l)														
	COD (mg/l)	-	<4	<4	-	<4	<4	-	<4	<4	-	<4	<4	15	
	BOD₅ (mg/l)	-	0,8	1,2	-	0,9	2,1	-	1,7	1	-	<0,5	<0,5	5	
	pH value	•	8,07	8,08	•	8,23	8,29	-	8,12	8,12	-	8,25	8,31	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	•	-	-	-	-	-	•	-	-	-	
	MPN coliform bacteria (E. coli/1I)	-	4,4 x10 ³	1,4 x104	-	6,5 x10 ³	6,8x10 ³	-	6x10 ³	5,7 x10 ³	•	3,5 x10 ³	7,5 x10 ⁴	-	
	Dissolved O ₂ (mg/l)	-	7,45	7,86	-	8,46	8,50	-	7,5	7,16	-	7,99	8,69	мин. 7,0	The Diver of Zenedre Mereye
OVČAR BANJA HPP	Suspended substances (mg/l)	-	12,6	16,7	-	11,6	4,1	-	3,5	4,2	-	3,5	5,2	25	belongs to Class II. The tested
	COD (mg/l)	-	14	11	-	<4	<4	-	<4	<4	-	8,6	6,6	15	the values defined by the
	BOD ₅ (mg/l)	-	3,5	2,3	-	1,3	1,7	-	1,05	0,84	-	1,1	0,8	5	Regulation.
	pH value	-	7,89	7,84	-	7,95	8	-	7,66	7,71	-	8,17	8,12	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MPN coliform bacteria (E. coli/1I)	-	2,2 x10 ³	2,9 x10 ³	-	9,1x10 ²	1,1x10 ³		5 x10 ³	5,1 x10 ³		8,6 x10 ³	1 x104	-	
	Dissolved O ₂ (mg/l)	-	9,05	8,02	-	7,81	8,69	-	7,71	7,68	-	8,56	8,66	мин. 7,0	
MEĐUVRŠJE HPP	Suspended substances (mg/l)	-	18,2	19,2	-	9,6	22,4	-	4	<1	-	4,0	4,2	25	belongs to Class II. The tested
	COD (mg/l)	-	10	7	-	<4	<4	-	5,6	<4	-	5,6	5,2	15	the values defined by the
	BOD ₅ (mg/l)	-	2,0	3,4	-	0,8	2,2	-	0,57	1,41	-	<0,5	0,63	5	Regulation.
	pH value	-	8,09	8,02	-	7,88	8,02	-	7,64	7,57	-	8,02	8,02	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-	



	MPN coliform bacteria (E. coli/1l)	-	40	80	-	40	65	-	5,7x10²	1x10²	-	3x10²	2x10 ²	-	
	Dissolved O ₂ (mg/l)	-	7,78	8,05	-	7,10	8,92	-	7,86	8,12	-	7,89	8,41	мин. 7,0	
UVAC HPP	Suspended substances (mg/l)	-	5,8	3,2	-	<1	18,6	-	<0,1	<0,1	-	<1	<1	25	The Uvac River belongs to Class II. The tested parameter of COD
	COD (mg/l)	-	8	12	-	<4	<4	-	54,3	<4	-	<4	<4	15	upstream does not meet the values defined by the Regulation.
	BOD₅ (mg/l)	-	1,4	0,9	-	2,9	1,2	-	1,9	0,9	-	<0,5	<0,5	5	
	pH value	-	7,88	7,84	-	8,65	8,55	-	8,09	7,82	-	7,86	7,88	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MPN coliform bacteria (E. coli/1I)	-	29	2,6x10 ²	-	9,5x10²	80	-	2,7x10²	1,9x10²	-	50	85	-	
KOKIN BROD HPP	Dissolved O ₂ (mg/l)	-	8,20	8,31	-	8,82	8,29	-	8,31	7,94	-	7,98	7,28	мин. 7,0	
	Suspended substances (mg/l)	-	4,2	6,8	-	15,6	2,5	-	<0,1	<0,1	-	<1	<1	25	The Uvac River belongs to Class II. The tested parameter of COD
	COD (mg/l)	-	<4	14	-	4,5	6,2	-	<4	<4	-	<4	<4	15	does not meet the values defined by the Regulation.
	BOD₅ (mg/l)	-	0,6	1	-	1,1	3,4	-	0,9	0,7	-	<0,5	<0,5	5	
	pH value	-	7,93	7,94	-	8,57	8,74	-	8,11	7,64	-	8,08	8,11	6,8-8,5	
BISTRICA HPP	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MPN coliform bacteria (E. coli/1l)	-	40	120	-	60	90	-	5,3x10 ²	1,3x10 ²	-	1x10 ²	3,9x10 ²	-	The Uvac River belongs to Class
	Dissolved O ₂ (mg/l)	-	7,98	7,25	-	8,49	8,16	-	7,25	7,09	-	7,58	7,72	мин. 7,0	II. I ne tested parameter of COD does not meet the values defined by the Regulation
	Suspended substances (mg/l)	-	<1	<1	-	9,4	11,5	-	<0,1	<0,1	-	<18,2	<1	25	



	COD (mg/l)	-	14	18	-	4,4	4,2	-	17,6	<4	-	<4	<4	15	
	BOD₅ (mg/l)	-	0,5	1,2	-	1,9	1,8	-	0,9	1	-	<0,5	<0,5	5	
	pH value	-	7,89	7,93	-	8,56	8,55	-	7,70	7,68	-	8,08	8,09	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MPN coliform bacteria (E. coli/1I)	-	2,5x10³	2,8x10³	-	2,5x10 ²	3,5x10³	-	6,6x10³	6,5x10³	-	3,5 x10 ⁴	9x10 ²	-	
	Dissolved O ₂ (mg/l)	-	8,05	7,98	-	8,97	8,57	-	8,13	7,69	-	9,06	8,40	мин. 7,0	
POTPEĆ HPP	Suspended substances (mg/l)	-	4,5	3,2	-	4,4	9,3	-	<0,1	<0,1	-	<1	<1	25	The Lim River belongs to Class II. The tested parameter of COD
	COD (mg/l)	-	4,8	<4	-	<4	6,1	-	<4	<4	-	<4	<4	15	does not meet the values defined by the Regulation.
	BOD₅ (mg/l)	-	0,9	0,8	-	1,2	1,1	-	1,8	1,4	-	<0,5	<0,5	5	
	pH value	-	8	8,03	-	8,25	8,08	-	7,94	7,87	-	8,20	8,20	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	_	-	-	-	-	-	-	-	-	

Water quality control for Vrelo SHPP and Radaljska Banja SHPP was not carried out in the Drinsko-Limske HPPs Branch, since for their size and structure they are not able to produce waste water.



7.2.3. Waste

Waste at the Drinsko – Limske HPPs Branch is mostly produced in the process of hydro power plants maintenance. Due to the rehabilitation of the Zvornik HPP during 2018, large amount of waste was generated.

The generated waste in 2018 is shown in the Table 115.

DRINSKO – L	IMSKE HPPs BRANCH								
Generated wa	aste in 2018								
	Official nomenclature of defining waste categories, it	the Rules			0	rganizational unit			
No.	classification OG RS № 5 10.08.2010.	56/10 dated	Unit (t)	Bajina Bašta HPP and PSHPP	Limske HPPs	Elektromorava HPP	Zvornik HPP	Total	Note
	Name	Code				Amounts			
1.	Waste from classification of paper and cardboard for recycling	03 03 08	t	0,830	0,000	0,000	0,000	0,830	Paper
2.	Mineral non-chlorinated hydraulic oils	13 01 10*	t	0,000	0,000	0,000	11,220	11,220	Turbine oil
3.	Mineral non-chlorinated oils for insulation and heat transfer	13 03 07*	t	0,000	0,000	0,000	9,860	9,860	Transformer oil
4.	Waste not otherwise specified	13 08 99*	t	0,000	0,000	0,108	0,000	0,108	Waste mixed oil
5.	Absorbents, filter materials			0,954	0,000	0,000	0,314	1,268	Oil soaked clothes
6.	(including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02°	t	0,546	0,000	0,000	0,128	0,674	Oil soaked absorbents
7.	Waste tires	16 01 03	t	0,340	0,000	0,620	0,120	1,080	Car tires
8.	Components removed from discarded equipment other than specified in 16 02 15	16 02 16	t	0,000	0,000	0,000	171,460	171,460	Electronic waste



9.	Organic waste containing hazardous matters	16 03 05 [∗]	t	0,848	0,000	0,000	0,000	0,848	Rasins
10.	Copper, bronze, brass	17 04 01	t	0,343	0,000	0,000	1,660	2,003	Copper, brass
11.	Aluminium	17 04 02	t	1,520	0,000	0,000	0,020	1,540	Aluminium
12.	Iron and steel	17 04 05	t	15,080	0,000	0,000	536,600	551,680	Iron and steel
13.	Mixed metals	17 04 07	t	0,000	0,000	0,000	53,960	53,960	Mixed metals
14.	Cables other than those specified in 17 04 10	17 04 11	t	0,000	0,000	0,000	2,200	2,200	Cables

Waste management was performed following the waste management procedures and according to the following waste handling legislation: Regulation on method of storage, packaging and labeling hazardous waste "Official Gazette of RS", No. 92/10 dated 05.12.2010; Regulation on categories, testing and classification of waste ("Official Gazette of the Republic of Serbia", No. 56/10 dated 10.08.2010); Regulation on the conditions and methods of collection, transport, storage and treatment of waste used as secondary raw material or for energy generation ("Official Gazette of the Republic of Serbia", No. 71/10 dated 04.10.2010) and Regulation on manner and procedures for waste management containing asbestos ("Official Gazette of the Republic of Serbia" No. 74/10 dated 15.10. 2010).

The waste generated in Drinsko – Limske HPP Branch was tested – the categorization of waste was done. During the year, the collected waste is stored within the plants and delivered/sold to the authorized companies registered for such activity. The delivered/sold waste in 2018 is shown in the Table 116.

DRINS	KO – LIMSKE HPPs BRANCH								
Genera	ated waste in 2018								
	Generated waste in 2018 Of								
No.	testing and classification OC 10.08.2010	G RS № 56/10 dated).	Unit (ţ)	Bajina Bašta HPP and PSHPP	Limske HPPs	Elektromorava HPP	Zvornik HPP	Total	Note
	Name	Code				Amounts			
1.	Waste from classification of paper and cardboard for recycling	03 03 08	t	0,830	0,000	0,000	0,830	Paper	
2.	Mineral non-chlorinated hydraulic oils	13 01 10*	t	0,000	0,000	0,000	11,220	11,220	Turbine oil



3.	Mineral non-chlorinated oils for insulation and heat transfer	13 03 07*	t	0,000	0,000	0,000	9,860	9,860	Transformer oil
4.	Waste not otherwise specified	13 08 99*	t	0,000	0,000	0,108	0,000	0,108	Waste mixed oil
5.	Absorbents, filter materials			0,954	0,000	0,000	0,314	1,268	Oil soaked clothes
6.	(including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	0,546	0,000	0,000	0,128	0,674	Oil soaked absorbents
7.	Waste tires	16 01 03	t	0,340	0,000	0,620	0,120	1,080	Car tires
8.	Components removed from discarded equipment other than specified in 16 02 15	16 02 16	t	0,000	0,000	0,000	171,460	171,460	Electronic waste
9.	Organic waste containing hazardous matters	16 03 05*	t	0,848	0,000	0,000	0,000	0,848	Rasins
10.	Copper, bronze, brass	17 04 01	t	0,343	0,000	0,000	1,660	2,003	Copper, brass
11.	Aluminium	17 04 02	t	1,520	0,000	0,000	0,020	1,540	Aluminium
12.	Iron and steel	17 04 05	t	15,080	0,000	0,000	536,600	551,680	Iron and steel
13.	Mixed metals	17 04 07	t	0,000	0,000	0,000	53,960	53,960	Mixed metals
14.	Cables other than those specified in 17 04 10	17 04 11	t	0,000	0,000	0,000	2,200	2,200	Cables

7.2.4. Environmental Noise Measurements

Environmental noise measurements nearby the electric power facilities were not performed in 2018, because they are dislocated from the settlement and as such do not represent a risk factor for the environment from this aspect.

7.3. Working Environment Monitoring, Occupational Safety and Health Protection

Occupational Safety and Health Protection Reports in 2018 include the following elements:

Working environment monitoring

-working environment noise measurements

- Occupational Safety
 - training of employees
 - occupational injuries
- Health Protection

7.3.1. Working Environment Monitoring

Working Environment Noise Measurements

Testing of the working conditions, physical and microclimate parameters was performed in all facilities of the Drinsko – Limske HPPs Branch during regular periodical testings in 2015. Measurements are done every three years. In 2018, no testings nor measurements in the working environments were performed because a public procurement procedure was not finished. The public procurement procedure which foresees working environment measurements in winter and summer is ongoing.

7.3.2. Occupational Safety

Training of employees

Employee training has been conducted under the Training program and complementing the knowledge of employees from occupational safety is performed periodically depending on the workplace, which is in compliance with the applicable legal regulations. The number of employees scheduled for training and the number of employees who have been trained is shown in Table 117.

					Table 11
DRINSKO – LIMSKE HPPs BRANCH					
Employee Training in 2018					
Organizational Unit	Number of employees	For tr	aining	Treir	ed
Organizational Unit	Number of employees	Number	%	Number	%
Bajina Bašta HPP	104	70	27 11	70	100.00
Bajina Bašta PSHPP	194	12	57,11	12	100,00
Elektromorava HPP	53	50	94,34	50	100,00
Zvornik HPP	60	29	48,33	29	100,00
Limske HPP	127	37	29,13	5	13,51
TOTAL: Drinsko – Limske HPPs Branch	434	188	43,32	156	82,98

Table 118 gives numbers of individuals sent for other trainings.

DRINSKO – LIMSKE HPPs BRANCH

Other tr	ainings in 2018		
N⁰	Type of training	Number of persons	Note
1.	Introducing the contractors with the dangers and hazards, OSH measures and rules of conduct	655	-
2.	Training for safe forklift handling	23	-
3.	Training for safe handling with the load-lifting equipment and cargo-carrying signaling	27	-
4.	Obligation of the management personnel related to application of preventive OSH measures	15	-
5.	Introducing the students and pupils at practice with OSH measures and rules of conduct	9	-
6.	Introducing the visitors and service providers with OSH measures and rules of conduct	13	-
7.	Trainings for safe operation with lifting devices	25	-
8.	Trainings for safe operation with TELEHANDLER	15	-

Occupational injuries

Table 119 provides number data occupational injuries in 2018.

Table 119

DRINSKO – LIMSKE HPPs BRANC	Η					
Occupational injuries in 2018						
Organisational unit	Number of	Inj	uries in relatio	on to the num	ber of employees	5
	employees	Light	Severe	Fatal	Total	%
Bajina Bašta HPP	10/	0	0	0	0	0.00
Bajina Bašta PSHPP	134	0	0	0	0	0,00
Elektromorava HPP	53	0	1	0	1	1,89
Zvornik HPP	60	0	0	0	0	0,00
Limske HPP	127	1	0	0	1	0,79
TOTAL:						
DRINSKO – LIMSKE HPPs	434	1	1	0	2	0,46
BRANCH						

7.3.3. Health Protection

Medical examinations results are provided in Table 120.

Table 120

DRINSKO – LIMSK	KE HPPs BRAN	СН									
Work ability and H	lealth of employ	yees in 201	8								
		Pe	riodical	examinatio	n			Work cap	ability		
Organisational unit	Number of employees	For me examin	dical ation	Exam	ined	Capal	ble	Limit capab	ed ility	Not cap	able
		Number	%	Number	%	NUmber	%	Number	%	Number	%
Bajina Bašta HPP	10/	75	38.66	75	100.00	67	80 33	6	8 00	2	2 67
Bajina Bašta PSHPP	134	75	50,00	15	100,00	07	09,00	0	0,00	2	2,07
Elektromorava HPP	53	5	9,43	4	80,00	3	75,00	0	0,00	1	25,00
Zvornik HPP	60	23	38,33	23	100,00	20	86,96	3	13,04	0	5,88
Limske HPP	127	32	25,20	31	96,88	24	77,42	7	22,58	0	0,00

Table 118

TOTAL: DRINSKO – LIMSKE HPPs BRANCH	434	135	31,11	133	98,52	114	85,71	16	12,03	3	2,26
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7.4. Public complaints

Uvac Special Nature Reserve submitted a Request for keeping a water level in Uvac Special Nature Reserve accumulations, particularly in Lake Uvac (Sjenicko) for safety of visitors and preservation of fish stocks.

8. RENEWABLE ENERGY SOURCES BRANCH

The Renewable Energy Sources (RES) Branch comprises the following small hydropower plants, some are in operation, whilst some are out of service as they require reconstruction or revitalization, or awaiting for the building permit.

Small hydropower plants in operation :

- Raška SHPP
- Sveta Petka SHPP
- Sićevo SHPP
- Temac SHPP
- Sokolovica SHPP
- Gamzigrad SHPP
- Vučje ŠHPP
- Jelašnica SHPP
- Prvonek SHPP

Small hydropower plants out of service :

- Seljašnica SHPP
- Moravica SHPP
- Turica SHPP
- Pod Gradom SHPP
- Kratovska reka SHPP
- Stanica Spasojević SHPP
- Crna SHPP
- Krasava SHPP
- Manastirište SHPP

According to the plans of PE EPS, small hydropower plants that are out of service at different stages of investment-technical documentation drafting and reconstruction, and the last four small hydropower plants are not currently in the reconstruction plans of PE EPS due to the state they are in at the moment.

8.1. Overview and Status of Permits

In 2018, the reconstruction of Turica SHPP, Seljašnica SHPP and Kratovska reka SHPP was continued. Rehabilitation works on Moravica SHPP and Pod Gradom SHPP were initiated. Based on the plans and current situation, the reconstruction of other small hydropower plants for which detail design and basic design are prepared, will be executed. The Building Permit Design (BPD) for Sićevo SHPP was prepared.

Prvonek SHPP has the Use Permission No. 351-398/2012-07 issued on June,13th 2013 by the competent Secretariat of the City of Vranje.

8.2. Monitoring and Environmental Impact

8.2.1. Identified Negative Impact on the Flow and Ecological System under the Accumulation

The identified negative impacts in streams downstream the dams are mainly twofold: with very low water level (low flow rate), causing by annual climate and meteorological conditions and otherwise, when there are very large inflows, there is a tendency to realize transfer of hydro power with as higher as possible efficiency through the planning of electricity production.

8.2.2. Water

• Water amounts

Utilization of water for hydropower generation, process and sanitary water did not exceed the permitted amounts. Amounts of permitted and amounts of water used for electricity generation, as well as amounts of water discharged after electricity generation in 2018 are provided in Table 121.

The data which are not indicated in the table are unavailable due to impossibility of measurement or lack of measuring equipment in the listed hydropower plants.

Table 121

RENEWABLE ENERGY SOURCES BRANCH Water amounts in 2018

		Permitted	Discharged water amounts						
Organisational unit	Number of units	water amounts (installed discharge per unit) m³/s	Water used for electricity generation in 2016 m ³ /y x 10 ⁶	Process water m³/y x 10 ⁶	Sanitary water m³/y x 10³	Total discharged water m³/y x10 ⁶			
Raška SHPP	6.256	4,5	-	-	-	-			
Seljašnica SHPP	Under reconstruction								
Moravica SHPP	160	2,50	Under reconstruction						
Turica SHPP			Under reconstruction						
Pod Gradom SHPP	364	2,30		Under reco	onstruction				
Kratovska reka SHPP			Under reconstr	ruction					
Sveta Petka SHPP	600	-	-	-	-	-			
Sićevo SHPP	1.348	20,60	-	-	-	-			
Temac SHPP	752	6,10	-	-	-	-			
Sokolovica SHPP	3.724	40	-	-	-	-			
Gamzigrad SHPP	224	4,20	-	-	-	-			
Vučje SHPP	928	1,25	-	-	-	-			
Jelašnica SHPP	400	0,42	-	-	-	-			
Prvonek SHPP	932	1,45	-	-	-	-			

• Water quality

Water quality control for SHPPs was not carried out in the Renewable Energy Sources Branch during 2018. SHHPs in the RES Branch for their size and structure are not able to produce waste water.

8.2.3. Waste

During 2018, the works on reconstruction of previously mentioned small hydropower plants were being executed, where a part of the equipment was properly stored after dismantling. The stored equipment will, after the decision of the competent authorities, be further used by the institutions interested in using this equipment for teaching or museum purposes.

In the process of production and maintenance of small hydroelectric power plants in operation we had no waste.

8.2.4. Environmental Noise Measurement

Noise level in the environment (near the hydropower electric facilities operated by the RES Branch) was not measured in 2018, because the facilities are dislocated from the settlement.

8.3. Working Environment Monitoring, Occupational Safety and Health Protection

Occupational Safety and Health Protection Reports in 2018 include the following elements:

Working Environment Monitoring

-noise measurement in the working environment

Occupational Safety

- training of employees
- occupational injuries
- Health Protection

8.3.1. Working Environment Monitoring

Noise measurements in the working environment

No noise measurement were made in the working environment in 2018.

8.3.2. Occupational Safety

Training of employees

The specific training of employees for safe and healthy work is done according to the Training Program, both theoretically and practically. The types of training completed in 2018 were:

Introduction to the dangers and hazards, i.e. the risk factors, is carried out in accordance with the Regulations on Safety and Health at Work and the Risk Assessment Act.

Occupational injuries

In 2018, in Renewable Energy Sources Branch there were no light, severe nor fatal injuries, which is given in Table 122.

					٦	able 122				
RENEWABLE ENERGY SOURCES BRANCH										
Occupational injuries in 2018										
Organizational unit	Number of employees	Injuries in relation to the number of employees								
	······	Light	Severe	Fatal	Total	%				
Renewable Energy Sources	50	0	0	0	0	0,00				
TOTAL: RENEWABLE ENERGY SOURCES BRANCH	50	0	0	0	0	0,00				

8.3.3. Health

Table 123 shows the results of medical examinations for the employees.

RENEWABLE ENERGY SOURCES BRANCH

Work ability of the employees i	n 2018
---------------------------------	--------

	mber of ployees	Periodical examination				Work capability					
Organizational unit		For medical examination		Examined		Capable		Limited capability		Not capable	
	NL	Number	%	Number	%	Number	%	Number	%	Number	%
Branch											
Administration	5	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
(Management)											
Istok SHPP	40	39	97,50	39	100,00	39	100,00	0	0,00	0	0,00
Zapad SHPP	5	4	80,00	4	100,00	4	100,00	0	0,00	0	0,00
TOTAL: RENEWABLE ENERGY SOURCES BRANCH	50	43	86,00	43	100,00	43	100,00	0	0,00	0	0,00

8.4. Public Complaints

With no public complaints regarding environment in 2018.

9. TECHNICAL CENTER BEOGRAD

Distribution network has not become a part of Technical Center Beograd. Transformer stations and cables lines are ownership of DSO "EPS Distribucija".

9.1. Overview and Status of Permits

Overview and status of permits, licences and other necessary approvals in 2018 were not carried out. There were no new applications for permits.

9.2. Monitoring and Environmental Impact

Environmental impact factors of TC Beograd are:

- Electromagnetic fields;
- Environmental noise;
- Waste;
- Surface and groundwater quality;
- Soil quality.

9.2.1. Electromagnetic Fields

During 2018, electromagnetic field measurements were not performed.

9.2.2. Living Environment Noise Measurements

During 2018, living environment noise measurements were not performed.

9.2.3. Waste

The waste was not generated this year in TC Belgrade.

9.2.4. Surface, Ground Waters and Soil Monitoring

Monitoring of surface and groundwater, as well as monitoring of soil in 2018 was not defined-included on the territory of TC Beograd.

9.3. Working Environment Monitoring, Health and Safety

Reports on Occupational Safety and Health Protection for 2018 include the following:

Working Environment Monitoring

- working environment noise measurements
- working environment electromagnetic fields
- working environment parameters
- Safety
 - training
 - work injuries
- Health

9.3.1. Working Environment Monitoring

Working environment noise measurement

Working environment noise measurements were not performed in 2018.

Working environment electromagnetic fields

Working environment electromagnetic fiels measurements were not performed in 2018.

Working environment parameters

Microclimate in the workplace and in the work environment were tested In 2018, which is shown in Table 124.

				Table 12	
TECHNICAL CENTER	BEOGRAD				
Organizational unit	Sub-branch	Air temperature (C) Allowed (15-28)	Relative air humidity(%) Allowed (may, 75)	Air flow speed (m/s) Allowed (max.	
	Beograd – Toplice Milana bb.		(1102.10)	0,0)	
	Small car workshop	27.7	48.7	0 14	
Sector for techinal		07.0	40,1	0,17	
services Beograd	Large venicies worksnop	27,9	48,4	0,17	
Centar	Warehouse - office	20,2	33,1	0,03	
		07.0	E4 0	0.05	
	Zamun Diseka 1	27,3	54,0	0,05	
	Office No. M1	26.0	F2 1	0.05	
Caster for tooking!		20,0	53,1	0,05	
Sector for techinal		20,4	54,2	0,03	
Services Zemun		20,1	51,5	0,06	
	Workshop	20,0	56.6	0,09	
	Sonot Milosava Vlaijaa 22	27,0	50,0	0,12	
	Office No. 1	25.5	50.7	0.12	
	Office No. 1	26.0	52,7	0,12	
	Office No. 4	20,0	52,2 61.2	0,10	
		25,0	01,3 EE 0	0,05	
		25,4	55,0	0,04	
	vvarenouse	26,3	58,5	0,09	
	Locksmith workshop	27,0	50,0	0,07	
		27,3	59,4	0,11	
		27,1	57,0	0,13	
	Office No. 9	20,0	57.6	0,09	
		20,3	52.1	0,00	
	Office No. 14	27,0	56.0	0,07	
	Office No. 10	20,0	40.1	0,12	
	Grocka - Narodnih Heroja 1	24,1	49,1	0,07	
Sector for techinal	Office No. 14	26.8	57 3	0.1/	
services	Office No. 12	20,0	45.3	0,14	
Mladenovac	Office No. 12	27,0	<u> </u>	0,00	
	Office No. 10	26.8	57 5	0,00	
	Office No. 1	27.0	56.7	0,00	
	Office No. 9	26.9	57 1	0,00	
	Office No. 3	26,3	59.8	0.07	
	Office No. 2	26.8	56 7	0.03	
	Counter hall	25,5	55.6	0.14	
	Restroom for employees	26.4	57.7	0.12	
	Barajevo - Miodraga	,	;•		
	Vukovica 26				
	Dispatch office	26,9	51,4	0,08	
	Office - processors	27,0	52,7	0,09	
	Counter hall	25,7	54,7	0,05	
	Office No. 12	26,7	40,2	0,06	
	Office No. 7	26.0	52.4	0.03	

	Office No. 9	24,6	36,8	0,08	
	Office No. 11a	25,4	36,7	0,07	
	Restroom for fitters	27,0	47,7	0,08	
	Office No. 15	27,5	54,4	0,04	
	Room – cleaning ladies	27.7	54.8	0.03	
	Centar Beograd - Masarikova	,-	,-	-,	
	1-3				
	Office No 804	26.5	55 9	0.03	
	Office No 805	26,0	59.6	0.07	
	Office No.803	20,0	55,0	0,07	
		20,9	57.0	0,10	
		20,4	57,3	0,04	
	Office No.701	26,5	50,2	0,10	
	Office No.702	26,9	48,1	0,05	
	Office No.703	26,5	58,5	0,10	
	Office No.705	26,5	50,7	0,05	
	Office No.709	27,4	56,4	0,07	
	Office No.710	27,0	51,5	0,03	
	Office No.711	27,2	57,4	0,15	
	Office No.713	26,8	47,8	0,09	
	Office No.715	27,4	57,9	0,06	
	Office No.717	27,2	56.0	0.07	
	Office No.719	27.0	45.5	0.08	
	Office No.720	26.2	50.5	0.05	
	Office No 7 21	20,2	40.3	0,00	
	Office No 723	27,0	40,0 //5 ()	0,14	
	Office No.725	20,2	40,0 /Q ()	0,00	
	Office No.725	20,0	40,0	0,04	
		20,3	40,9	0,03	
		25,4	46,4	0,05	
	Office No.603	27,3	55,2	0,05	
	Office No.605	26,4	49,9	0,07	
	Office No.607A	27,3	53,7	0,04	
Technical center HO	Office No.608	27,3	43,2	0,08	
Masarikova	Office No.610	27,4	54,2	0,07	
masarinova	Office No.611	27,1	52,4	0,05	
	Office No.600	26,6	50,6	0,16	
	Office No.501	27,3	57,0	0,10	
	Office No.502	27,0	53,9	0,14	
	Office No.503	26,4	54,3	0,09	
	Office No.506	27,2	50,4	0,15	
	Office No.507	26,5	55,6	0,12	
	Office No.508	27.0	46.3	0.03	
	Office No.510	26.9	54.6	0.08	
	Office No.402	27.0	53.4	0.11	
	Office No.403	27.1	57.9	0.07	
	Office No 405	26.9	49.4	0 10	
	Office No 407	26,5	46.3	0,10	
	Office No 409	20,0	40,0 55 Q	0,17	
		21,2 27 A	10.7	0,03	
		<u>21,4</u> 07.0	43,1 17 0	0,04	
	Office No.414	21,3	41,0	0,04	
	Office No.414	21,0	43,0	0,09	
		26,9	53,2	0,08	
	Office No.303	25,4	53,5	0,09	
	Office No.304	26,1	55,7	0,06	
	Office No.305	26,0	59,2	0,12	
	Office No.306	26,1	56,6	0,15	
	Office No.308	26,3	58,5	0,05	
	Office No.201	26,5	57,2	0,11	
	Office No.101	27,0	52,4	0,08	
	Office No.102	26,3	42,3	0,09	
	Office No.103	25,8	57,1	0,07	

Office No.104	26,4	56,9	0,13
Office No.105	26,6	57,7	0,07
Office No.106	26,6	57,8	0,09
Office No.107	26,2	53,2	0,10
Office No.111	26,5	55,9	0,08
Office No.109	27,1	57,6	0,13
Office No.M1	26,2	58,4	0,15
Office No.M3	26,2	57,2	0,05
Office No.M6	25,8	58,9	0,09
Office No.M8	26,0	58,5	0,11
Office No.M10	26,4	57,5	0,08
Office No.M12	27,0	58,0	0,11
Office No.M14	26,5	57,6	0,07
Clerk's office	25,3	55,6	0,04
Room no. 31	25,0	51,1	0,06

9.3.2. Occupational Safety

• Employee training

OHS training for employees is performed. Training of employees is carried out according to the Program for training employees for safe work. Checking the skills of employees in the field of OHS, working at the workplace with increased risk is carried out in accordance with the newly adopted Risk Assessment Act for Technical Centers.

Training of employees, shown in Table 125, included checking employees' qualifications as well as training of newly recruited employees.

					Table 125
TECHNICAL CENTER BEOGRAD					
Training in 2018					
TC Boograd	No. of	For tr	raining	Trained	
I C Beograd	employees	No	%	No	%
Safe and healthy work of electrical engineering jobs	664	268	40,36	268	100,00

Work injuries

The status of work injuries in 2018 is presented in Table 126.

Table 126

TECHNICAL CENTER BEOGRAD								
Work injuries in 2018								
Sector for technical services/Facility	No. of employees	Injuries – number of employees ratio						
		Light	Serious	Fatalities	Total.	%		
STS CENTAR	83	3	1	0	4	4,82		
STS BANOVO BRDO	89	0	2	0	2	2,25		
STS ZEMUN	94	1	0	0	1	1,06		
STS KRNJACA	21	0	0	0	0	0,00		
STS MLADENOVAC	58	2	1	0	3	5,17		
STS OBRENOVAC	58	1	1	0	2	3,45		
HQ	261	4	1	0	5	1,92		
TOTAL: TECHNICAL CENTER BEOGRAD	664	11	6	0	17	2,56		

9.3.3. Health

Periodical medical examinations of employees are shown in Table 127.

TECHNICAL CENTER BEC	GRAD										
Working capacity of emplo	oyees in	2018									
	of es	P	Periodical examination					Capabilit	y for wor	k	
Organizational unit	umber nploye	Referred to examination		Examined / Referred		Capable		Limited capability		Incapable	
	E Z	No	%	No	%	No	%	No	%	No	%
STS CENTAR	83	55	66,27	55	100,00	55	100,00	0	0,00	0	0,00
STS BANOVO BRDO	89	75	84,27	75	100,00	75	100,00	0	0,00	0	0,00
STS ZEMUN	94	70	74,47	70	100,00	70	100,00	0	0,00	0	0,00
STS KRNJACA	21	11	52,38	11	100,00	11	100,00	0	0,00	0	0,00
STS MLADENOVAC	58	31	53,45	31	100,00	31	100,00	0	0,00	0	0,00
STS OBRENOVAC	58	40	68,97	40	100,00	40	100,00	0	0,00	0	0,00
HQ	261	60	22,99	60	100,00	59	98,33	1	1,67	0	0,00
TOTAL: TECHNICAL CENTER BEOGRAD	664	342	51,51	342	51,51	341	99,71	1	0,29	0	0,00

9.4. Public Complaints

There were no public complaints for environment in 2018.

10. TECHNICAL CENTER NOVI SAD

Distribution network has not become a part of Technical Center Novi Sad. Transformer stations and cables lines are ownership of DSO "EPS Distribucija".

10.1. Overview and Status of Permits

Overview and status of permits, licences and other necessary approvals in 2018 were not carried out. There were no new applications for permits.

10.2. Monitoring and Environmental Impact

Environmental impact factors of TC Novi Sad are:

- Electromagnetic fields
- Environmental noise
- Waste
- Surface and groundwater quality
- Soil quality

10.2.1. Electromagnetic Fields

Electromagnetic field measurements in 2018 were not performed in work environment.

10.2.2. Environment Noise Measurements

Table 128 shows data of measured and relevant living environment noise levels in 2018.

Γ						Table 128
TECHNICAL CENTER NO	OVI SAD					
Living environment nois	e level 11 2010. ((ud)(A)			For day	For night
Limit values of the noise	Outdoors	Areas for rest a rest areas, cult parks	and recreation, ho ural and historical	50	40	
Indicators		Tourist areas, o	camps and school	zones	50	45
Indicators, Limit Values,		Residential are	as	55	45	
Methods for Evaluating Indicators of Noise, Disturbance and Harmful Effects of Noise in the Environment, "Official Corretto of PS"		Business – res residential area	idential areas, cor as and children pla	60	50	
		City center, cra zone with apar main roads and	ift, commercial, ac tments, zone alon d city roads.	65	55	
no. 75/10		Industrial, ware transport termi	ehouse and servic nals without reside	At the border of this zone noise must not exceed the limit value in the zone with which it is bounded		
STS SOMBOR	Noise m	easurements in th	e environment we	re not carried out i	in 2018.	
Measuring points						
	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)
MEASURED VALUES	-	-	-	-	-	-
GVI						

STS SUBOTICA	Noise me	asurements in the	environment were not carried out in 2018.						
Measuring points									
	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)			
MEASURED VALUES	-	-	-	-	-	-			
GVI									
Measuring points									
	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)			
MEASURED VALUES	-	-	-	-	-	-			
GVI									
Measuring points		_							
	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)			
MEASURED VALUES	-	-	-	-	-	-			
GVI									
Measuring points									
	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)			
MEASURED VALUES	-	-	-	-	-	-			
GVI									
STS SREMSKA MITRO	/ICA	Noise measur	ements in the en	vironment were no	t carried out in 20	018.			
Measuring points									
	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)			
MEASURED VALUES	-	-	-	-	-	-			
GVI									
Measuring points									
	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)			
MEASURED VALUES	•	-	•	-	•	•			
GVI									
STS ZRENJANIN	Noise me	easurements in the	environment we	re not carried out ir	n 2018.				
Measuring points									
	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)			
MEASURED VALUES	•	-	•	-	•	•			
GVI									
Measuring points									

	Measured level Leq dB(A)	Measured level Leq dB(A) Relevant level dB(A)		Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)		
MEASURED VALUES	-	-	-	-	-	-		
GVI								
STS RUMA	Noise measure	ments in the enviro	onment were not carried out in 2018.					
Measuring points								
	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)		
MEASURED VALUES	-	-	-	-	-	-		
GVI								
Measuring points								
	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)		
MEASURED VALUES	-	-	-	-	-	-		
GVI								
Measuring points								
	Measured level Leq dB(A)	Measured level Leq dB(A) Relevant level dB(A)		Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A)		
MEASURED VALUES	-	-	-	-	-	-		
GVI								
STS NOVI SAD	Noise m	easurements in th	e environment we	ere not carried out	in 2018			
STS NOVI SAD Measuring points	Noise m	easurements in th	e environment we	ere not carried out	in 2018			
STS NOVI SAD Measuring points	Noise m Measured level Leq dB(A)	easurements in th Relevant level dB(A)	e environment we Measured level Leq dB(A)	Relevant level dB(A)	in 2018 Measured level Leq dB(A)	Relevant level dB(A)		
STS NOVI SAD Measuring points MEASURED VALUES	Noise m Measured level Leq dB(A)	easurements in th Relevant level dB(A) -	e environment we Measured level Leq dB(A)	Relevant level dB(A)	Measured level Leq dB(A)	Relevant level dB(A) -		
STS NOVI SAD Measuring points MEASURED VALUES GVI	Noise m Measured level Leq dB(A) -	easurements in th Relevant level dB(A) -	e environment we Measured level Leq dB(A) -	Relevant level dB(A) -	Measured level Leq dB(A)	Relevant level dB(A) -		
STS NOVI SAD Measuring points MEASURED VALUES GVI Measuring points	Noise m Measured level Leq dB(A) -	easurements in th Relevant level dB(A) -	e environment we Measured level Leq dB(A) -	Relevant level dB(A) -	Measured level Leq dB(A)	Relevant level dB(A) -		
STS NOVI SAD Measuring points MEASURED VALUES GVI Measuring points	Noise m Measured level Leq dB(A) - Measured level Leq dB(A)	easurements in th Relevant level dB(A) - Relevant level dB(A)	e environment we Measured level Leq dB(A) - Measured level Leq dB(A)	Relevant level dB(A) - Relevant level dB(A)	Measured level Leq dB(A) - Measured level Leq dB(A)	Relevant level dB(A) - Relevant level dB(A)		
STS NOVI SAD Measuring points MEASURED VALUES GVI Measuring points MEASURED VALUES	Noise m Measured level Leq dB(A) - Measured level Leq dB(A) -	easurements in th Relevant level dB(A) - Relevant level dB(A) -	e environment we Measured level Leq dB(A) - - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) -	Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) -		
STS NOVI SAD Measuring points MEASURED VALUES GVI Measuring points MEASURED VALUES GVI	Noise m Measured level Leq dB(A) - Measured level Leq dB(A) -	easurements in th Relevant level dB(A) - Relevant level dB(A) -	e environment we Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) -	Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) -		
STS NOVI SAD Measuring points MEASURED VALUES GVI Measuring points MEASURED VALUES GVI Measuring points	Noise m Measured level Leq dB(A) - Measured level Leq dB(A) -	easurements in th Relevant level dB(A) - Relevant level dB(A) -	e environment we Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) -	Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) -		
STS NOVI SAD Measuring points MEASURED VALUES GVI Measuring points MEASURED VALUES GVI Measuring points	Noise m Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A)	easurements in th Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A)	e environment we Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A)	Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A)	Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A)	Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A)		
STS NOVI SAD Measuring points MEASURED VALUES GVI Measuring points GVI MEASURED VALUES MEASURED VALUES	Noise m Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A) -	easurements in th Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) -	e environment we Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A)	Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) -	Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) -		
STS NOVI SAD Measuring points MEASURED VALUES GVI Measuring points MEASURED VALUES GVI Measuring points MEASURED VALUES GVI	Noise m Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A) -	easurements in th Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) -	e environment we Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) -	Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) -		
STS NOVI SAD Measuring points MEASURED VALUES GVI Measuring points MEASURED VALUES GVI Measuring points MEASURED VALUES GVI STS PANCEVO	Noise m Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A) - Nois	easurements in th Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) -	e environment we Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) -	Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) -		
STS NOVI SAD Measuring points MEASURED VALUES GVI Measuring points GVI Measuring points MEASURED VALUES GVI MEASURED VALUES GVI STS PANCEVO Measuring points	Noise m Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A) - Nois Просторија з рач	easurements in th Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) - e measurements ва штампање уна	e environment we Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) -	Measured level Leq dB(A) - Measured level Leq dB(A) - Measured level Leq dB(A) -	Relevant level dB(A) - Relevant level dB(A) - Relevant level dB(A) -		

MEASURED VALUES	73,6±3.1	85	-	-	-	-
GVI	6	0				

10.2.3. Waste

Characterization, categorization and partial disposal of waste carried out in 2018 is shown in Table 129.



Table 12												
TECHN	TECHNICAL CENTER NOVI SAD											
Waste	n 2018		r								1	
						Sector	for techinal s	ervices			Total	Note
NUMBER	RULEBOOK ON CATEGORIES. TESTING AND CLASSIFICATION OF WASTE The rulebook has been published in the "Official Gazette of the Republic of Serbia". no. 56/2010 of 10.8.2010.	INDEX NUMBER	UNIT OF MEASURE	SUBOTICA	SOMBOR	ZRENJANIN	NOVI SAD	SREMSKA MITROVICA	RUMA	PANCEVO	TOTAL TC NOVI SAD	
						КОЛИ	ЧИНЕ					
1.	Waste toner for printing other than stated in 08 03 17	08 03 18	t	0,160	0,000	0,000	0,000	0,000	0,000	0,000	0,160	-
2.	Other insulating and heat transfer oils	13 03 10*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Transformer oils
3.	Other emulsions	13 08 02*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Oiled water from oil pit
4.	Packing containing residues of dangerous substances or contaminated with dangerous substances	15 01 10*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Plastic bottles used for testing transformer oils in electrical servicing workshop
5.	Absorbents, filter materials (including oil filters which are not otherwise specified), wiping cloths, protective clothing, contaminated with dangerous substances	15 02 02*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste adsortion mediums with oil and fuel oil. Oiled gravel
6.	Waste tires	16 01 03	t	0,268	0,000	0,000	0,000	0,000	0,310	0,000	0,578	Waste tires
7.	Waste vehicles that do not contain any liquid or other dangerous substance	16 01 06	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	
8.	Oil filters	16 01 07*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	



9.	Ferrous metal	16 01 17	t	2,100	0,000	0,000	0,000	0,000	0,000	0,000	2,100	Waste iron
10.	Transformers and condensers containing RSV	16 02 09*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Wasted RSV transformers
11.	Rejected equipment containing hazardous components other than that specified in 16 02 09 to 16 02 12	16 02 13*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Condenser batteries
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste Meters
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste transformers without oil
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Electrical devices
	Rejected equipment other than			0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Measuring cabinets
12.	that specified in 16 02 09 to 16 02 13	16 02 14	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Measuring devices (ampermeters, volt meters)
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Disconnector 20 kV
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	LV and HV Units
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste fuses LV and HV
13.	Lead-acid batteries	16 06 01*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Batteries
14.	Waste containing oil	16 07 08*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste putty for transformer oil testing on RSV
15.	Oiled water	16 10 01		0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Oiled water from the oil pit
16.	Concrete	17 01 01	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Concrete poles
17.	Wood	17 02 01	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Wooden poles
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste mixed wood
18.	Plastics	17 02 03	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	-
19.	Glass, plastic and wood containing dangerous substances or contaminated with dangerous substances	17 02 04*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Impregnated wooden poles
20		17 04 01	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste and residues of copper and brass
20.	Copper, bronze, brass	17 04 01	Ľ	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste copper



				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste copper cables
21.	Aluminum	17 04 02	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste aluminum
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste aluminum cables
22.	Iron and steel	17 04 05	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste parts of substation equipment
23.	Mixed metals	17 04 07	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Al - Fe
24.	Cables containing oil, tar oil and other dangerous substances	17 04 10*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Oily cable
25.	Oiled gravel	17 05 03*		0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	-
26.	Insulation materials other than those specified in 17 06 01 and 17 06 03	17 06 04	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste ceramic insulators
27.	Building materials containing asbestos	17 06 05*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste asbestos-cement corrugated sheet
28.	Paper and cardboard	20 01 01	t	1,500	0,000	0,000	0,000	0,000	0,000	0,000	1,500	-
29.	Glass	20 01 02	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	-
30.	Cold-cathode lamps and other waste containing mercury	20 01 21*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Cold-cathode lamps, bulbs with mercury
31.	Discarded electrical and electronic equipment other than that specified in 20 01 21 and 20 01 23 containing dangerous components	20 01 35*	t	0,300	0,000	0,000	0,000	0,000	0,000	0,000	0,300	Waste computers, keyboards, monitors, electronic meters
32.	Bulky waste	20 03 07	t	0,700	0,000	0,000	0,000	0,000	0,000	0,000	0,700	Waste office furniture



10.2.4. Surface, Ground Waters and Soil Monitoring

Surface and ground waters monitoring, as well as soil monitoring in 2018, is not defined - included in the inspections.

10.3. Working Environment Monitoring, Health and Safety

Reports on 2018 Health and Safety include the following:

- Working Environment Monitoring
 - working environment noise measurements
 - working environment electromagnetic fields
 - working environment parameters
- Safety
 - training
 - work injuries
- Health

10.3.1. Working Environment Monitoring

Working environment noise measurement

Working environment noise measurements in 2018 are given in Table 130.

			Table 130
TECHNICAL CENTER NOVI SAD			
Working environment noise in 2018			
Technical service department / Facility	Operating unit	Registered noise level (dB(A))	Permissible noise level (dB(A))
Technical service department Subotica	No measurements in 2018	-	-
Technical service department Sombor	No measurements in 2018	-	-
Technical service department Zrenjanin	No measurements in 2018	-	-
Technical service department Novi Sad	Bačka Palanka – Jug Bogdana 2		
	Workshop	76,80	85
Technical service department Sremska	Sremska Mitrovica		
Mitrovica	Warehouse	52,60	85
Technical service department Ruma	No measurements in 2018	-	-
Technical service department Pančevo	No measurements in 2018	-	-

Working environment electromagnetic fields

Electromagnetic field measurements were not performed in 2018

Working environment parameters

In 2018, illumination and microclimate at workplace and within working environment were tested. Working environment parameters are given in Tables 131, 132, 133 and 134.


TECHNICAL CENTER NOVI SAD						
inumination in working environment in 2018 - wi			Minimum			
Technical service department / Facility	Operating unit	Average (Lx)	admissible (Lx)			
Technical service department Subotica	No measurements in 2018	-	-			
Technical service department Sombor	No measurements in 2018	-	-			
Technical service department Zrenjanin	No measurements in 2018	-	-			
	Bačka Palanka – Jug Bogdana 2					
	Technical preparation office	590	150			
	Unit chief's office	442	150			
	Secretary's office	727	150			
	Office No. 2	570	150			
	Customer care office	694	150			
	Office No. 6	330	150			
	Dispatcher's Office	273	150			
	Cash desk	505	300			
	Trade office	369	150			
	Counter	100	150			
	Chiefs' office	45	150			
	Workshop	390	150			
	Bački Petrovac – Voivođanskih udarnih					
	slovačkih brigada					
	Office of the officer in charge	474	450			
	for losses	171	150			
	Counter	560	150			
	Novi Sad – Bulevar Oslobodjenja 100					
	Office No. 1206/1207	775	150			
	Office No. 1106	754	150			
	Office No. 1112	760	150			
	Office No. 1128	839	150			
Technical service department Novi Sad	Office No. 1003	518	150			
	Office No. 1011	438	150			
	Office No. 1033	955	150			
	Office No. 924	468	150			
	Office No. 802	389	150			
	Office No. 702	608	150			
	Office No. 708	805	150			
	Office No. 606	746	150			
	Office No. 626	434	150			
	Office No. 632	595	150			
	Office No. 649	243	150			
	Office No. 651	469	150			
	Office No. 501	423	150			
	Office No. 521	334	150			
	Office No. 526/527	438	150			
	Office No. 434	548	150			
	Office No. 427	529	150			
	Office No. 447	619	150			
	Office No. 302	342	150			
	Office No. 308	1420	150			
	Office No. 332	272	150			
	Office No. 345	968	150			
	Office No. 353	536	150			
	Office No. 230	965	150			
	Office No. 112	326	150			
	Uttice No 124	618	150			



	Office No.133	394	150
Office No. 004		325	150
	Office No. 011	312	150
	Counter hall – outside	629	150
	Counter hall - insiide	938	150
	Counter hall – administrator's	838	150
	Drinting center	253	150
	Printing ball	200	150
	Printing office	10/	150
	Workshop concellation	224	150
		056	150
		200	150
	Filter station	804	150
	Žabalj – Nikole Tesle 3		
	Office No. 3	542	150
	Office No. 2	608	150
	Office No. 1	845	150
	Office No. 7	1862	150
	Office No. 8 – counter hall	843	150
	Office No. 6 – cash desk	847	300
	Office of dispatch center	442	150
	Office No. 4	403	150
	Fitter's room	768	150
	Workshop	1756	150
	Bečej – Petroveselski put 5		
	Office No. 2	725	150
	Office No. 1	665	150
	Counter hall	283	150
	Office No. 3	639	150
	Office No. 4	682	150
	Office No. 5	684	150
	Office No. 7	437	150
	Office No. 8	560	150
	Office No. 9	628	150
	Office No. 10	221	150
	Dispatch center	1152	150
	Srbobran – Novosadska 2		
	Counter hall	326	150
	Fitter's room	285	150
	Temerin - Novosadska 320		
	Counter hall	1345	150
	Fitter's room	335	150
Technical service department Sremska Mitrovica	No measurements in 2018	-	-
	Ruma – Industrijska bb		
	Gatekeeper's lodge	1100	150
	Office No. 162	465	150
	Office No. 144	570	150
	Office No. 113	660	150
Technical service denartment Puma	Office No. 117	425	150
rechinical service department ruma	Office No. 110	420	150
	Office No. 12 A	450	150
		560	150
		220	150
		1200	150
		500	150
		090	100



	Counter hall	550	150
	Office No. 151	560	150
	Office No. 157	560	150
	Office No. 154	580	150
	Dispatch center	320	150
	Management	1035	150
	Chief of department	420	150
	Office No. 141	520	150
	Office No. 134	340	150
	Office No. 138	570	150
	Office No. 164	325	150
	Calibration room	350	150
	Workshop for exploitation	400	150
	department	430	150
	Laboratory	720	150
	Electrical service workshop	560	150
	Locksmith and tin workshop	510	150
	Locksmith and tin workshop	420	150
	Warehouse office	440	150
	ELOP workshop	770	150
	Indjija – Vojvode Stepe 36		
	Customer care department	310	150
	Cash desk	370	150
	EEO department	450	150
	Office No. 19	470	150
	Office No. 14	320	150
	Unit chief's office	450	150
	Chief's office	230	150
	Stara Pazova – Nikole		
	Momčilovića 81		
	Chief's office	590	150
	Customer care	340	150
	Reclamation desk	450	150
	Cash desk	455	150
	Local office chief	450	150
Technical service department Pančevo	No measurements in 2018	-	-

TECHNICAL CENTER NOVI SAD							
Illumination in working environment in 2018 - summer							
Technical service department / Facility	Operating unit	Average (Lx)	Minimum admissible (Lx)				
Technical service department Subotica No measurements in		-	-				
Technical service department Sombor	No measurements in 2018	-	-				
Technical service department Zrenjanin	No measurements in 2018	-	-				
Technical service department Novi Sad	No measurements in 2018	-	-				
	Sremska Mitrovica – Fruškogorska bb						
	Warehouse officer's office	160	80				
	Warehouse	120	80				
	Trade department	430	150				
Technical service department Sremska	EFP department	400	150				
Mitrovica	Technical department	420	150				
	MiZ department	460	150				
	Dispatch center	710	150				
	Šid – Svetog Save bb						
	Office manager's office	520	300				
	Failure notification	450	150				
Technical service department Ruma	No measurements in 2018	-	-				
Technical service department Pančevo	No measurements in 2018	-	-				



TECHNICAL CENTER NOVI SAD						
Microclimate in working environment in	2018 - winter					
Technical service department / Facility	Operating unit	Air temperature (°C) Allowed (18-28)	Relative air humidity(%) Allowed (max. 75)	Air flow speed (m/s) Allowed (max. 0,3)		
Technical service department Subotica	No measurements in 2018	-	-	-		
Technical service department Sombor	No measurements in 2018	-	-	-		
Technical service department Zrenjanin	No measurements in 2018	-	-	-		
	Bačka Palanka – Jug Bogdana 2					
	Technical preparation office	20,0	38,9	0,04		
	Unit chief's office	22,3	35,7	0,04		
	Secretary's office	23,5	29,5	0,06		
	Office No. 2	21,9	30,8	0,05		
	Customer care office	22,1	39,9	0,04		
	Office No. 6	22,1	28,6	0,09		
	Dispatcher's Office	24,4	30,6	0,05		
	Cash desk	25,1	30,8	0,15		
	Trade office	26,2	28,9	0,10		
	Counter	25,6	26,0	0,08		
	Chiefs' office	26,0	25,3	0,03		
	Workshop	25,7	27,3	0,09		
	Backi Petrovac – Vojvođanskih udarnih slovačkih brigada					
	Office of the officer in charge for losses	23,6	27,2	0,05		
	Counter	23,8	25,8	0,07		
	Novi Sad – Bulevar Oslobodienia 100					
Technical convice department Nevi	Office No. 1206/1207	23.6	28.0	0.04		
Sad	Office No. 1106	23,0	35.7	0,04		
- Cad	Office No. 1112	22,9	30.4	0.07		
	Office No. 1128	23.8	29.0	0.08		
	Office No. 1003	22,9	27,0	0,07		
	Office No. 1011	23,6	27,6	0,05		
	Office No. 1033	25,1	27,7	0,11		
	Office No. 924	23,6	26,2	0,06		
	Office No. 802	24,1	26,6	0,04		
	Office No. 702	24,3	26,5	0,05		
	Office No. 708	24,2	26,8	0,03		
	Office No. 606	24,3	25,5	0,06		
	Office No. 626	24,1	24,3	0,07		
	Office No. 632	24,7	26,9	0,04		
	Office No. 649	25,1	23,5	0,05		
	Office No. 651	25,0	28,4	0,08		
	Office No. 501	20,3	21,U 24.2	0,00		
	Office No. 521	20,0	24,3 22 7	0,03		
		25,4	23,1	0,12		
	Office No. 427	25,3	26,1	0,00		
	Office No. 447	25,5	26.3	0.05		
	Office No. 302	25,5	20,0	0,00		
	Office No. 308	25.3	26.1	0.04		
	Office No. 332	25.3	23.3	0.06		



	Office No. 345	25,5	23,4	0,07
	Office No. 353	26,0	25,8	0,06
	Office No. 230	25,6	27,7	0,06
	Office No. 112	25,1	23.2	0,03
	Office No. 124	25,2	26,3	0,07
	Office No.133	24,7	27,2	0,07
	Office No. 004	25.7	27.2	0.03
	Office No. 011	26.0	25.4	0.04
	Counter hall – outside	26,5	31.8	0.07
	Counter hall - insiide	26,8	33.4	0.05
	Counter hall -	20,0	00,4	0,00
	administrator's office	27,0	32,6	0,06
	Printing center	27,0	36,0	0,11
	Printing hall	27,8	45,0	0.07
	Printing office	27.8	27.1	0.03
	Workshop cancellation	26.6	26.0	0.06
	Electric fitting workshop	24.4	25.4	0.09
	Filter station	18,9	31,1	0,06
	Žabalj – Nikole Tesle 3			
	Office No. 3	22.7	36.2	0.03
	Office No. 3	22,1	30,2	0,05
		∠J,U 22.2	21.0	0,05
		23,3	31,0	0,05
		23,0	29,0	0,07
	Office No. 8 – counter hall	25,3	35,3	0,06
	UTTICE NO. 6 – cash desk	25,5	30,4	0,08
	Office of dispatch center	24,3	26,4	0,04
	Office No. 4	25,3	29,1	0,06
	Fitter's room	22,8	28,6	0,07
	Workshop	24,8	37,6	0,10
	Bečej – Petroveselski put			
	Office No. 2	24.3	38.1	0.06
	Office No. 2	24,3	20 5	0,00
		24,0	30,5	0,04
		24,7	20,9	0,09
		24,7	27,2	0,05
		25,0	27,7	0,03
	Office No. 5	25,4	28,4	0,05
	Office No. 7	25,9	26,0	0,06
	Office No. 8	26,0	28,8	0,08
	Office No. 9	26,3	28,4	0,07
	Office No. 10	26,8	27,5	0,04
	Dispatch center	26,1	30,4	0,11
	Srbobran – Novosadska 2			
	Counter hall	25,0	25,7	0,06
	Fitter's room	25,0	28,1	0,03
	Temerin - Novosadska		,	
	J2U Counter hall	25.0	20.2	0.00
		25,9	30,3	0,08
Technical comdet descent south	Fitter's room	24,7	28,5	0,07
Technical service department Sremska Mitrovica	No measurements in 2018	-	-	-
	Ruma – Industrijska bb			
	Gatekeeper's lodge	25.7	57 8	0.03
	Office No. 165	20,1	51.0	0,05
Technical service department Ruma	Office No. 100	24,0 06 0	01,0 100	0,00
•	Office No. 144	20,3	40,9 54.2	0,00
	Office No. 113	∠0, I	51,3	0,07
		25,8	50,5	0,04
	Uffice No. 110	25,8	50,7	0,03



	Office No. 118	26,0	49,6	0,03
	Office No. 106	25,7	48,4	0,06
	Office No. 124	26,3	49,6	0,05
	Office No. 104	25,5	48,2	0,03
	Office No. 126	26,1	47,9	0,05
	Counter hall	24,9	51,8	0,12
	Office No. 151	25,9	50,2	0,07
	Office No. 157	26,3	50,4	0,03
	Office No. 154	26,0	50,2	0,04
	Dispatch center	24,4	46,2	0,11
	Management	25,9	45,5	0,06
	Chief of department	26,2	46,8	0,05
	Office No. 141	26,1	49,8	0,05
	Office No. 134	26,2	49,7	0,05
	Office No. 138	26,2	48,5	0,05
	Office No. 164	25.9	49.5	0.11
	Calibration room	25.7	50.6	0.115
	Workshop for exploitation	25,0	50,3	0,05
	Laboratory	25.3	50.6	0.08
	Car service workshop	25.9	47.8	0 19
	Electrical service workshop	24.4	50.6	0.08
	Locksmith and tin	2.,,		0,00
	workshop	25,1	50,4	0,12
	Locksmith and tin	05.0	50 4	0.40
	workshop	25,0	52,4	0,16
	Warehouse office	26.0	49.2	0.02
	ELOP workshop	26,3	49,5	0,05
	Indiiia – Voivode Stepe	- , -	- , -	.,
	36			
	Customer care department	25,6	54,3	0.07
	Cash desk	25.4	55.6	0,03
	EEO department	25.8	53.6	0,06
	Office No. 19	25,6	51,2	0,05
	Office No. 14	25,1	50,9	0,06
	Unit chief's office	25,0	50,4	0,05
	Chief's office	25,1	54,5	0,03
	Stara Pazova – Nikole	·	·	
	Momčilovića 81			
	Chief's office	26,3	54,8	0,07
	Customer care	25,8	53,5	0,05
	Reclamation desk	25,8	52,9	0,08
	Cash desk	25,7	52,4	0,06
	Local office chief	26,0	54,8	0,03
Technical service department Pančevo	No measurements in 2018		-	-



Microclimate in working environment in	2018 - summer		<u>.</u>	
Technical service department / Facility	Operating unit	Air temperature (°C) Allowed (18-28)	Relative air humidity(%) Allowed (max. 75)	Air flow speed (m/s) Allowed (max. 0,3)
Technical service department Subotica	No measurements in 2018	-	-	-
Technical service department Sombor	No measurements in 2018	-	-	-
Technical service department Zrenjanin	No measurements in 2018	-	-	-
	Bačka Palanka – Jug Bogdana 2			
	Technical preparation office	26,8	52,3	0,04
	Unit chief's office	26,3	56,4	0,05
	Secretary's office	27,0	52,3	0,04
	Office No. 2	27,2	48,9	0,04
	Customer care office	27,2	49,6	0,05
	Office No. 6	26,2	35,8	0,04
	Dispatcher's Office	26,4	45,5	0,06
	Cash desk	27,8	45,4	0,20
	Trade office	26,9	45,1	0,07
	Counter	27,2	45,5	0,15
	Chiefs' office	27,2	48,2	0,10
	Workshop	27,2	47,2	0,06
	Backi Petrovac – Vojvođanskih udarnih slovačkih brigada			
	Office of the officer in charge for losses	27,2	42,3	0,05
	Counter	27,1	43,2	0,05
	Novi Sad – Bulevar			
T . 1. 1 1 1	Oslobodjenja 100			
lechnical service department Novi	Office No. 1206/1207	25,2	56,4	0,03
5a0	Office No. 1106	25,3	54,6	0,04
	Office No. 1112	25,6	53,1	0,04
	Office No. 1128	22,3	51,5	0,04
	Office No. 1003	24,7	51,8	0,04
	Office No. 1011	25,0	52,1	0,05
	Office No. 1033	25,1	52,4	0,06
	Office No. 924	24,8	56,8	0,05
	Office No. 802	24,5	56,2	0,04
	Office No. 702	24,3	53,2	0,04
	Office No. 708	24,3	53,7	0,04
		24,3	55,ð	0,03
		24,2	55,9 55,7	0,05
		24,0	5/ 0	0,00
	Office No. 651	24,2	60.7	0,00
		24,4 0/ 1	56 5	0,04
	Office No. 521	24, 1 24 A	54.8	0,04
	Office No. 526/527	24.6	55 7	0.08
	Office No. 434	24.8	57.5	0.05
	Office No 427	24.0	55 1	0.06
	Office No. 447	24.8	54.6	0.13
	Office No. 302	24.0	54 6	0.03
	Office No. 308	24.2	58.8	0.05



	Office No. 332	24,3	56,7	0,05
	Office No. 345	24.6	56.7	0.03
	Office No. 353	24.6	57.0	0.04
	Office No. 230	24.1	57.2	0.03
	Office No. 112	23.0	57.5	0,05
	Office No. 12	23,5	5/ 8	0,05
	Office No. 124	24,4	54,0	0,05
	Office No. 004	24,2	54,4	0,00
		24,1	55,1	0,04
		24,4	55,8	0,03
	Counter hall – outside	24,3	56,2	0,03
	Counter hall - insiide	24,2	58,4	0,03
	Counter hall – administrator's office	24,1	57,4	0,04
	Printing center	23.4	60.4	0.06
	Printing ball	23,0	58.6	0.04
	Printing office	23,0	57.7	0,04
	Workshop concellation	23,7	56,4	0,05
		23,9	50,4	0,05
	Electric fitting workshop	<u>∠3,3</u>	57,4	0,07
		۷۵٫۷ ک	5/,/	0,04
	Zabaij – Nikole Tesle 3	07.0	55.0	0.05
		27,2	55,8	0,05
	Office No. 2	27,1	54,8	0,06
	Office No. 1	27,5	54,8	0,12
	Office No. 9	27,5	56,8	0,11
	Office No. 8 – counter hall	27,2	58,2	0,05
	Office No. 6 – cash desk	26,7	55,4	0,05
	Office of dispatch center	26,7	56,8	0,05
	Office No. 4	26,8	54,7	0,05
	Fitter's room	26.3	55,7	0.05
	Workshop	26,1	58,3	0.05
	Bečej – Petroveselski put	- ,		- ,
	5		50.4	0.04
	Office No. 2	26,2	58,1	0,04
	Office No. 1	26,4	57,7	0,06
	Counter hall	26,6	58,5	0,06
	Office No. 3	26,8	54,7	0,07
	Office No. 4	26,8	57,1	0,05
	Office No. 5	26,4	57,8	0,04
	Office No. 7	27,0	58,3	0,04
	Office No. 8	27.0	57.9	0.05
	Office No. 9	27.1	55.4	0.05
	Office No. 10	27.2	57.4	0.04
	Dispatch center	 97 1	58.1	0,04
	Srbobran – Novosadska	۷۱,۱	50,1	0,10
	2			
	Counter hall	23,5	57,8	0,11
	Fitter's room	23,6	60,7	0,10
	Temerin - Novosadska 320			
	Counter hall	25.9	60.4	0.06
	Fitter's room	23,5	60.3	0,00
	Sremska Mitrovica	24,0	00,3	0,03
	Sieliiska wiiliovica – Fruškogoroka bb			
		06.0	50.6	0.00
T 1 1 1 1 1 1 1 1 1 1		20,U	59,6	0,02
lechnical service department	Warehouse	25,9	61,5	0,11
Sremska Mitrovica	I rade department	26,6	59,8	0,11
	EFP department	26,3	57,4	0,08
	Technical department	25,5	58,9	0,08
	MiZ department	25,8	60,6	0,05



	Dispatch center	26,2	58,4	0,06
	Šid – Svetog Save bb		·	·
	Office manager's office	26.1	59.2	0.03
	Failure notification	25.9	61.8	0.08
	Ruma – Industrijska bb	,	,	,
	Gatekeeper's lodge	23.3	37.9	0.04
	Office No. 162	20,6	41.1	0.03
	Office No. 144	20,9	35.4	0.04
	Office No. 113	20.7	34.3	0.03
	Office No. 117	22,2	32,8	0.03
	Office No. 110	22,6	34,3	0,02
	Office No. 12 A	22,9	39,7	0,03
	Office No. 106	23,7	30,3	0,04
	Office No. 124	23,5	30,8	0,02
	Office No. 104	23,7	31,2	0,04
	Office No. 126	23,6	28,5	0,03
	Counter hall	24,5	29,8	0,08
	Office No. 151	24,3	30,8	0,04
	Office No. 157	24,0	30,3	0,04
	Office No. 154	24,8	33,6	0,03
	Dispatch center	26,5	27,6	0,05
	Management	26,3	37,0	0,03
Technical convice department Duma	Chief of department	25,6	28,7	0,02
	Office No. 141	24,5	30,0	0,02
	Office No. 134	25,7	31,5	0,04
	Office No. 138	25,3	29,0	0,03
	Office No. 164	25,1	26,0	0,05
	Calibration room	23,2	31,4	0,06
rechnical service department Ruma	department	24,0	30,3	0,07
	Laboratory	24,1	38,2	0,05
	Electrical service workshop	15,6	36,1	0,15
	Locksmith and tin workshop	16,8	41,9	0,09
	Locksmith and tin	16,1	36,4	0,18
	Warehouse office	18.6	38.9	0.02
	ELOP workshop	18,6	38.2	0.08
	Indjija – Vojvode Stepe 36	- , -		
	Customer care department	24,1	31,5	0.03
	Cash desk	24,2	31,5	0,02
	EEO department	23,6	32,1	0,03
	Office No. 19	24,1	31,0	0,02
	Office No. 14	23,5	30,8	0,04
	Unit chief's office	23,0	31,5	0,04
	Chief's office	22,8	29,7	0,03
	Stara Pazova – Nikole Momčilovića 81			
	Chief's office	23,1	32,4	0,04
	Customer care	23,1	33,2	0,03
	Reclamation desk	22,9	31,7	0,06
	Cash desk	23,1	32,3	0,05
	Local office chief	23,2	32,5	0,03
Technical service department Pančevo	No measurements in 2018	-	-	-



10.3.2. Occupational Safety

Training

Training of employees is presented in the Table 135 bellow.

750						Table 135
TECI	ning in 2018					
No. Technical service Numb		Number of	Planned for training		Trained	
	department / r demty	employees	No	%	No	%
	TSD SUBOTICA					
	*Regular training "general electrical" NORCEV 2018	140	19	13,57	19	100,00
1	** General OHS training – employment, engagement contract for temporary assignments with Technical Center Novi Sad. Person in charge for OHS is from Sector for technical services		30	21,43	30	100,00
	Regular – annual training for positions with increased risk		104	74,29	104	100,00
	TSD SOMBOR	144				
2	electrical" NORCEV 2018		36	25,00	36	100,00
	Training of employees for FF (administration)		109	75,69	109	100,00
	TSD ZRENJANIN	- 129		1		
0	Regular training "general electrical" NORCEV 2018		34	26,36	33	97,01
	Training for HIAB, cart, fork lifter		1	0,78	1	100,00
3	Training for handling chain- saw		1	0,78	1	100,00
	***** Training - getting to know with dangers and harms of third parties		40	31,01	40	100,00
	TSD NOVI SAD			1		
	*Regular training "general electrical" NORCEV 2018 – training executed by: MANAGEMENT TECHNICAL CENTER NOVI SAD		44	24,45	44	100,00
4	** General training OHS – employment, training of employees in the field of OHS based on the engagement contract for temporary assignments with TC Novi Sad. Person in charge for OHS is from Sector for technical services	180	2	1,11	2	100,00
	** Extraordinary general OHS training due to employment – Employer PE EPS.		3	1.67	3	100,00
	** Extraordinary general OHS training due to employment –		87	48,33	87	100,00



	Employer MONTOP Agency					
	** Extraordinary general OHS					
	training due to employment –					
	Employer MONTOP Agency		37	20,56	37	100,00
	HRS and SEQUESTER – ÉPS			,		,
	Electricity Supply					
	**Introducing Contractor with					
	dangers and hazards, OHS		77	42,78	77	100,00
	measures and codes of			, -		,
	**Introducing students and					
	nunils attending practical					
	lectures with OHS measures		14	7,78	14	100,00
	and codes of conduct					
	****General training –					
	introducing visitors and service		17	9 44	17	100 00
	providers with OHS measures		.,	0,11		100,00
	and codes of conduct					
5	Peqular training general	107				
5	electrical" NORCEV 2018	107	26	24,31	26	100,00
	TSD SREMSKA MITROVICA					
	Regular training "general		15	20.61	15	100.00
	electrical" NORCEV 2018		15	30,01	10	100,00
	Extraordinary training as per	49	2		2	
	the new instructions for safe			4,08		
	work at overnead lines for					100,00
6	temporary assignments					
	contract					
	Extraordinary training as per					
	the new instructions for safe			18,37	18,37 9	
	work at overhead lines for		9			100,00
	employees employed by					
	Regular training general					
	electrical" NORCEV 2018 -					
	training executed by:		21	16,03	21	100,00
	MANAGEMENT TECHNICAL					
	CENTER NOVI SAD					
	** General training OHS –					
	employment, employment					
	contract for temporary					
7	assignments with TC Novi	131	22	16,79	22	100,00
	Sad. Person in charge for OHS	_				
	is from Sector for technical					
	services.					
	Extraordinary general OHS			4 50	•	(00.00
	training due to modification in		2	1,53	2	100,00
	the post halfle					
	introducing visitors and service				62	
	providers with OHS measures		62	47,33		100,00
	and codes of conduct					
	TECHNICAL CENTER NOVI					
8	SAD – HQ	189				
-	Regular training "general		3	1,59	3	100,00
	electrical NURGEV 2010 -					



training executed by: MANAGEMENT TECHNICAL CENTER NOVI SAD					
** General training OHS – employment, employment based on the engagement contract for temporary assignments with TC Novi Sad. Person in charge for OHS is from Sector for technical services		12	6,35	12	100,00
** Extraordinary general OHS training due to employment – Employer PE EPS		8	4,24	8	100,00
** Extraordinary general OHS training due to employment – Employer MONTOP Agency HRS and SEQUESTER – EPS Electricity Supply		53	28,04	53	100,00
** Extraordinary general OHS training due to employment – Employer MONTOP Agency HRS and SEQUESTER – EPS Electricity Supply		7	3,70	7	100,00
**Introducing students and pupils attending practical lectures with OHS measures and codes of conduct		2	1,16	2	100,00
TOTAL: TECHNICAL CENTER NOVI SAD	1.069	899	84,10	898	99,89

Periodical training of employees on workplaces with higher risk is carried out in NORCEV Educational Center, Iriski Venac. The training is organized in cycles, twice a year, so that 15 groups of employees are trained in one cycle, one group per week (165-230 trainees in total). Target of the training is preventive action and permanent improvement in acquiring new knowledges and skills for performance of working tasks with full implementation of OHS measures.

<u>Theoretical part</u>: includes OHS training, training in fire fighting and work technology. Employees are getting acquainted with issues in accordance with the OHS Rulebook – normative regulation and importance and target of OHS, sources of danger and harmfulness and preventive measures for safe and healthy work, means and equipment for personal protection at work. The second part of the training is to get acquainted with work technologies – works near voltage and in voltage-free state, dangers related to electric energy, fault PF localization, basic principles of PF manipulation, instructions on dispatching management. The third part implies getting acquainted with fire and explosion protection (practical training on simulators is carried out).

Once the theoretical part of training is accomplished, the trainees take knowledge test examination.

<u>Practical part</u>: it is performed in three groups on individually determined locations on polygon for demonstration such as: erection sheet metal transformer station TS 20/10/04 kV, room with measuring devices and ring main unity facility and combined MV, LV, Al/steel, self-supporting cable bundles and public lightening line.

Work injuries

The status of injuries for 2018 is presented in Table 136.



Table 136

TECHNICAL	CENTER	NOVI	SAD
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Work injuries in 2018						
Organizational unit	Number of		Injuries	- number of	employe	es ratio
Organizational unit	employees	Light	Serious	Fatalities	Total.	%
STS Subotica	140	2	0	0	2	1,43
STS Sombor	144	3	1	0	4	2,78
STS Zrenjanin	129	2	0	0	2	1,55
STS Novi Sad	180	3	1	0	4	2,22
STS Ruma	107	4	0	0	4	3,74
STS Sremska Mitrovica	49	3	0	0	3	6,12
STS Pancevo	131	5	2	0	7	5,34
HQ	189	2	0	0	2	1,06
TOTAL: TECHNICAL CENTER NOVI SAD	1.069	24	4	0	28	2,62

10.3.3. Health

Periodic medical examinations of employees are presented in Table 137.

TECHNICAL CENTER NO	OVI SAD										
Working capacity of emp	oloyees in	n 2018									
	f s		Periodical	examina	ation			Capabi	lity for wor	'k	
Organizational unit	mber o ployee	Ref exa	erred to mination	Ex	amined	Ca	apable	L ca	imited pability.	Inca	apable
	Nul	No	%	No	%	No	%	No	%	No	%
STS Subotica	140	116	82,86	115	99,14	110	95,65	5	4,35	0	0,00
STS Sombor	144	107	74,31	105	98,13	81	77,14	24	22,86	0	0,00
STS Zrenjanin	129	92	71,32	92	100,00	82	89,13	10	10,87	0	0,00
STS Novi Sad	180	118	65,56	116	98,31	90	77,59	25	21,55	1	0,86
STS Ruma	107	71	66,36	71	100,00	59	83,10	12	16,90	0	0,00
STS Sremska Mitrovica	49	34	69,39	34	100,00	29	85,29	5	14,71	0	0,00
STS Pancevo	131	91	69,47	91	100,00	81	89,01	10	10,99	0	0,00
HQ	189	10	5,29	10	100,00	9	90,00	1	10,00	0	0,00
TOTAL: TECHNICAL CENTER NOVI SAD	1.069	639	59,78	634	99,22	541	85,33	92	14,51	1	0,16

10.4. Public Complaints

There were no public complaints in TC Novi Sad in 2018.



11. TECHNICAL CENTER KRALJEVO

Distribution network has not become a part of Technical Center Kraljevo. Transformer stations and cables lines are ownership of DSO "EPS Distribucija".

11.1. Overview and Status of Permits

Overview and status of permits, licences and other necessary approvals in 2018 were not carried out. There were no new applications for permits.

11.2. Monitoring and Environmental Impact

Environmental impact factors of TC Kraljevo are:

- Electromagnetic fields
- Environmental noise
- Waste
- Surface and groundwater quality
- Soil quality

11.2.1. Electromagnetic Fields

During 2018, electromagnetic field measurements were not performed.

11.2.2. Living Environment Noise Measurements

During 2018, living environment noise measurements were not performed.

11.2.3. Waste

The waste was not generated in 2018.

11.2.4. Surface, Ground Waters and Soil Monitoring

Monitoring of surface and groundwater, as well as monitoring of soil in 2018 was not performed on the territory of TC Kraljevo.

11.3. Working Environment Monitoring, Health and Safety

Reports on 2018 Health and Safety include the following items:

Working Environment Monitoring

- working environment noise measurements
- working environment electromagnetic fields
- working environment parameters
- Safety
 - training
 - work injuries
- Health

11.3.1. Working Environment Monitoring

Working environment noise measurement

Noise measurements results are given in Table 138.



TECHNICAL CENT	ER KRALJEVO		
Working noise in 2	018		
Sector for	Examination subject	Registered noise level in	Allowed noise level in
techinal services		working rooms in dB (A)	dB (A)
STS Valievo	HQ of Technical	Services Valjevo	
	Car mechanic workshop	74	85
	HQ of Technical S	ervices Lazarevac	Γ
STS Lazarevac	Auto mechanic workshop	Auto mechanic workshop	Auto mechanic workshop
	Transformer workshop	Transformer workshop	Transformer workshop
	Locksmith workshop	Locksmith workshop	Locksmith workshop
	HQ of Technical	Services Loznica	
STS Loznica	Auto mechanic workshop		Auto mechanic workshop
	Locksmith workshop		Locksmith workshop
	Unit Baji	na Bašta	
	Cash desk	Noise is not damaging	85
	Technical service	Noise is not damaging	85
	Unit F	Priboj	
	Secretary's office	44,2	85
	Counter hall	49,8	85
	Dispatcher's office	45,2	85
	Unit Nov	va Varoš	
	Accountants' office	45,2	85
	Counter hall	42,2	85
STS Užice	Dispatcher's office	47,2	
	Unit Požega, date and time o	f tests: 27/09/2018 (11ºº-11³º)	
	Employee's restroom	Noise is not damaging	85
	Mechanical and Locksmith workshop	82	85
	Unit manager's office	Noise is not damaging	85
	Unit Arilje, date and time of	tests: 27/09/2018 (12 ⁰⁰ -12 ²⁰)	
	Employee's restroom	Noise is not damaging	85
	EPS Electricity Supply office	Noise is not damaging	85
	Unit Kosjerić, date and time o	of tests: 27/09/2018 (1300-1320)	
	Employee's restroom	Noise is not damaging	85
	Maintenance department chief's office	Noise is not damaging	85

Note: Noise measurements in working environment in other sections within technical services were not performed.

Working environment electromagnetic fields

Electromagnetic field measurements were not carried out during 2018.

Working environment parameters

Monitoring of temperature, relative humidity and air flow velocity for winter 2018 is given in Table 139.

TECHNIC	AL CENTER KRALJEVO				
Temperat	ure, humidity and velocity in 2018.				
Sector for	techical services Jagodina				
No.	Measurement point	I	Monitoring		Note
		t *C	Rv %	Vm/s	Comfort zone
1.	Office No.402	19.9	39,1	0,04	Within zone
2.	Office No.309	23,1	40,2	0,08	Within zone
3.	Office No.310	24,4	36,1	0,07	Within zone
4.	Office No.308	24,7	30,8	0,06	Within zone
5.	Office No.309	24,3	31,2	0,04	Within zone
6.	Office No.305	24,8	34,3	0,05	Within zone
7.	Office No.212	24,3	31,4	0,10	Within zone



8.	Office No.202	24,9	28,4	0,08	Within zone
9.	Office No.116	23,1	33,7	0,11	Within zone
10.	Office No.6	21,6	34,00	0,09	Within zone
11.	Low voltage controler	22,6	35,5	0,05	Within zone
12.	Auto mechanic workshop garage	16,7	59,8	0,08	Within zone
13.	Car park office	19,6	44,8	0,06	Within zone
14.	Buffet	20,6	34,00	0,10	Within zone
15.	Kono room	21,5	33,8	0,04	Within zone
16.	Meeting room	21,4	32,2	0,05	Within zone
17.	Gatekeeper's lodge	21.00	36.9	0.06	Within zone
18.	Reclamation counter hall	23.7	37.6	0.05	Within zone
19.	Cash desk	25.7	40.6	0.05	Within zone
20.	Warehouse staff office	18.6	52.7	0.05	Within zone
21.	Branch chief office	22.4	34.00	0.10	Within zone
22.	Maintenance officer's office	22.00	35.4	0.08	Within zone
23.	Coffee room	22.8	36.8	0.06	Within zone
24	On-duty service	24 1	36.2	0.06	Within zone
25	Office for reclamations	24.4	37.7	0.05	Within zone
Sector for	r techical services Valievo - winter	21,1	07,1	0,00	Within 20110
000101 10					
			Monitoring		Note
No.	Measurement point		-		
		t *C	Rv %	Vm/s	Comfort zone
1.	Controler's office	18,3	45,1	0,07	Within zone
2.	Warehouse staff office	18,4	48,5	0.06	Within zone
3.	Auto mechanic workshop	18.4	39.6	0.09	Within zone
4.	Car park office	18,4	35.9	0.05	Within zone
5.	SM fitters' office	19,1	34.5	0.06	Within zone
6.	GP fitters' office	19.8	28.1	0.05	Within zone
7	Maintenance officer's office	20.3	28.3	0.05	Within zone
8	CT fitters' office	19.9	30.4	0,00	Within zone
9	Office No. 49 (FFP)	19.5	44 0	0.05	Within zone
10	Office No. 45 (EEP)	21.5	36.5	0.05	Within zone
11	Office No. 48	23.2	29.9	0.06	Within zone
12	Office No. 22	24.0	32.3	0.05	Within zone
13	BU Osečina - BU chieťs office	18.3	40.0	0.03	Within zone
14	BU Osečina - Maintenance officer's office	19.2	39.7	0.05	Within zone
15	BU Osečina - Cash desk	21.0	34.6	0.07	Within zone
16	BU Osečina - Eitter's room	21,5	34.9	0.05	Within zone
17	BU Ub - BU chief's office	22,1	42.8	0,00	Within zone
18	BU Ub - Maintenance officer's office	21.1	43.5	0,00	Within zone
19	BU Ub - Cash desk	20.9	58.9	0.04	Within zone
20	BU Ub - Fitter's room	19.4	41 1	0.05	Within zone
21	BU Mionica - BU chief's office	20.5	35.5	0.04	Within zone
22	BU Mionica - Maintenance officer's office	19.7	35.3	0.05	Within zone
23	BU Mionica - Cash desk	18,1	44.9	0.04	Within zone
24	BU Mionica - Fitter's room	21.1	26.8	0.05	Within zone
Sector fo	r techical services Lazarevac	, .		-,	
	. , . ,		Monitoring		Note
No.	Measurement point			_	
		t *C	Rv %	Vm/s	Comfort zone
1.	EEO HV fitters' room	20,3	31,5	0,07	Within zone
2.	EEO HV-TS fitters' room	19,9	36,3	0,05	Within zone
3.	Auto mechanic workshop	15.2	43.3	0.09	Within zone
4.	Transformer workshop	15.2	45.5	0.08	Within zone
5.	Locksmith workshop	15.3	48.1	0.07	Within zone
6.	Warehouse staff workshop	18.5	59.1	0.05	Within zone
7.	Warehouse	15.8	56.9	0.07	Within zone
8.	EEO MV and LV Chief and maintenance officer's office	18.7	66.2	0.05	Within zone
· · · ·				- ,	



9.	Counter hall	18,5	26,4	0,10	Within zone
10.	Legal department	19,5	29,3	0,08	Within zone
11.	Officer, accountant, car park chief and warehouse	22,9	28,7	0,05	Within zone
12.	EEO MV and LV fitters' room	22.9	28.7	0.05	Within zone
13	Common affairs office	20.3	33.7	0.05	Within zone
10.	Finance and accounting department office	18.8	35.6	0,00	Within zone
15	Finance department office	19.2	38.8	0,00	Within zone
16	BILLiig – fitters' room	19,2	30,0	0,05	Within zone
10.	BULLiig - BUChief and maintenance officer's office	20.5	30.1	0,00	Within zone
18	BULLiig – BU chief's office	20,0	31.9	0,00	Within zone
10.	BUL aikovac - BU chief's office	21,0	34.1	0,00	Within zone
20	BULLaikovac - fitters' room	22,4	27.0	0,00	Within zone
20.	BUL aikovac – officer's room	23,7	28.8	0,00	Within zone
21.	BUL aikovac – cash desk	24,1	30.4	0,07	Within zone
Sector fo	r techical services Loznica	24,0	50,4	0,00	Within 2011C
No.	Measurement point		Monitoring	Ι	Note
		t *C	Rv %	Vm/s	Comfort zone
1.	Office No. 44 - IT	22,9	31,7	0,03	Within zone
2.	Accounting	22.8	26.1	0.05	Within zone
3.	Common affairs	18.6	29.8	0.07	Within zone
4.	Legal department, Office No. 31	18,5	38.6	0.04	Within zone
5.	Investments, Office No. 35	19.3	36.0	0.05	Within zone
6.	Dispatch center	18,3	50,1	0.07	Within zone
7.	Counter hall	16,6	36.1	0.06	Within zone
8.	Gatekeeper's lodge	15,1	56.1	0.05	Within zone
9.	EEO MNN maintenance	18.3	44.5	0.03	Within zone
10.	Warehouse	16.8	35.4	0.09	Within zone
11.	Warehouse staff office	18.3	41.0	0.04	Within zone
12.	Calibration workshop	18,2	40,3	0.05	Within zone
13.	Prnjavor – electrical fitters' room	19,1	39,9	0.08	Out of zone
14.	Prnjavor – chief electrical fitter's office	22,4	35,0	0.04	Out of zone
15.	Prnjavor – counter hall	21,8	38,3	0,03	Out of zone
16.	Draginac - electrical fitters' room	19,9	34,4	0,05	Within zone
17.	Draginac - chief electrical fitter's office	19,9	41,9	0,07	Within zone
18.	Krupanj – BU chief's office	18,4	42,6	0,05	Within zone
19.	Krupanj - chief electrical fitter's office	15,6	40,1	0,04	Within zone
20.	Krupanj – office for customers	18,0	31,6	0,05	Within zone
21.	Auto mechanic workshop	18,7	47,7	0,03	Within zone
22.	Locksmith workshop	19,0	35,1	0,04	Within zone
Sector fo	r techical services Užice	•			
No.	Measurement point		Monitoring	T	Note
		t *C	Rv %	Vm/s	Comfort zone
1.	Sector for techinal services Užice –Guaranteed supply sector manager's office – Dimitrija Tucovića 40, Užice	24,9	39,8	0,07	Within zone
2.	Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice	25,8	43,70	0,09	Within zone
3.	Sector for techinal services Užice – Office 1 – IMS and BZ – Momčila Tešića 3, Užice	22,8	53,90	0,07	Within zone
4.	Sector tor techinal services Užice – Low voltage maintenance department – Sevojno – Dragačevska bb	26,1	53,5	0,07	Within zone
5.	BU Bajina Bašta – Cash desk	27,1	49,2	0,07	Within zone
6.	BU Bajina Bašta – Technical service	26,1	59,3	0,07	Within zone
7.	BU Priboj – Business secretary's office	25,0	44,6	0,01	Within zone
8.	BU Priboj – Counter hall	25,8	45,2	0,01	Within zone
9.	BU Priboj – On-duty dispatcher office	25,5	44,5	0,07	Within zone
10.	BU Nova Varoš – Business secretary's office	25,3	43,0	0,01	Within zone



11.	BU Nova Varoš – Counter hall	26,3	43,7	0,01	Within zone
12.	BU Nova Varoš – On-duty dispatcher office	27,4	39,6	0,01	Within zone
13.	BU Požega – Employee rest room	21,8	54,50	0,07	Within zone
14.	BU Požega – Mechanical and locksmith workshop	25,8	57,1	0,1	Within zone
15.	BU Požega – BU chieťs office	25,7	59,2	0,03	Within zone
16.	BU Arilje - Employee rest room	24,2	60,1	0,09	Within zone
17.	BU Arilje – EPS Electricity supply office	26,1	59,8	0,08	Within zone
18.	BU Kosjerić - Employee rest room	27,1	54,20	0,07	Within zone
19.	BU Kosjerić – Maintenance chief's office	26,9	59,30	0,09	Within zone
20.	BU Prijepolje – Counter hall	26,70	58,50	0,05	Within zone
21.	BU Prijepolje - On-duty dispatcher office	27,2	53,1	0,06	Within zone
22.	BU Prijepolje – Office No. 12 OHS officer	26,9	59,1	0,07	Within zone

Monitoring of chemical hazards in winter 2018 is given in table 140.

Table 140 **TECHNICAL CENTER KRALJEVO** Chemical hazards Sector for techical services Valjevo Measured Type of chemical Exceeding of No. **Measurement point** concentractio Exposition (h) MAV hazard concentration n Dust mineral Auto mechanic workshop (headquaters Meets 1. 0.13 8 15 of the sector) with < 1% SiO₂ requirements Sector for techical services Lazarevac Dust mineral Auto mechanic workshop (headquaters Meets 1. 8 15 0.15 of the sector) with < 1% SiO_2 requirements Dust mineral Locksmith workshop Meets 2. 0.85 8 15 (headquarters of the sector) with < 1% SiO₂ requirements Dust mineral Transformer workshop Meets 3. 8 0,3 15 with < 1% SiO₂ (headquarters of the sector) requirements Sector for techical service Užice Measured Exposition MA Exceeding of No. Measurement point Type of chemical hazard concentracti concentration (h) v on BU Bajina Bašta – Cash desk and Chemical hazards are not Meets 1 1 1. 1 Techincal service requirements damaging BU Priboj - Business secretary's Dust mineral with < 1% 2. 0.028 8 10 Do not exceed office SiO₂ Dust mineral with < 1% Chemical hazards 8 3. BU Požega - Employee's restroom 15 are not damaging SiO₂ BU Požega – Mechanical and Dust mineral with < 1% Meets 4. 0.4 8 15 locksmith workshop SiO₂ requirements Chemical hazards Dust mineral with < 1% 5. 8 15 BU Požega - BU chief's office are not damaging SiO₂ Chemical hazards Dust mineral with < 1% 6. BU Arilje - Employee's restroom 8 15 are not damaging SiO₂ BU Arilje - EPS electricity supply Dust mineral with < 1% Chemical hazards 7. 8 15 office SiO₂ are not damaging Dust mineral with < 1% Chemical hazards 8. BU Kosjerić – Employee's restroom 8 15 SiO₂ are not damaging BU Kosjerić - Office of the Chief of Dust mineral with < 1% Chemical hazards 9. 8 15 maintenance service are not damaging SiO₂

Monitoring of illumination for winter 2018 is given in Table 141.



TECHNICAL CENTER KRALJEVO

Illum	nation for 2018 – winter period				
Secto	or for techical services Jagodina				
			Monitoring		Note
No.	Measurement point		Illuminati	on (lx)	
	·	illumination	Measured	Sufficient	illumination
1.	Office No.402		230	150-300	Sufficient
2.	Office No.309		260	150-300	Sufficient
3.	Office No.310		270	150-300	Sufficient
4.	Office No.308		210	150-300	Sufficient
5.	Office No.309		180	150-300	Sufficient
6.	Office No.305		173	150-300	Sufficient
7.	Office No.212		278	150-300	Sufficient
8.	Office No.202		298	150-300	Sufficient
9.	Office No.116		180	150-300	Sufficient
10.	Office No.6		183	150-300	Sufficient
11.	Controler low voltage		243	150-300	Sufficient
12.	Car workshop garage		187	150-300	Sufficient
13.	Car park office		193	150-300	Sufficient
14.	Buffet		166	150-300	Sufficient
15.	Kono room		168	150-300	Sufficient
16.	Meeting room		298	150-300	Sufficient
17.	Gatekeeper's lodge		195	150-300	Sufficient
18.	Counter hall for reclamation		295	150-300	Sufficient
19.	Cash desk		255	150-300	Sufficient
20.	Warehouse staff office		210	150-300	Sufficient
21.	BU Chier's office		278	150-300	Sufficient
22.	Maintenance officer's office		175	150-300	Sufficient
23.	Caffee		183	150-300	Sufficient
24.	On-duty service		244	150-300	Sufficient
25.	Office for reclamations		290	150-300	Sufficient
Secto	or for techinal services Valjevo				
			Monitoring		Note
No.	Measurement point		Illuminatio	on (lx)	
-	-	Illumination	Measured	Sufficient	Illumination
1.	Controler's office	combined	520	150-300	Sufficient

		mummation	Measured	Sufficient	mummation
1.	Controler's office	combined	520	150-300	Sufficient
2.	Warehouse staff office	combined	272	150-300	Sufficient
3.	Auto mechanic workshop	combined	180	80-150	Sufficient
4.	Car park office	combined	510	150-300	Sufficient
5.	SM fitters' office	combined	575	150-300	Sufficient
6.	GP fitters' office	combined	305	150-300	Sufficient
7.	Maintenance officer's office	combined	677	150-300	Sufficient
8.	CT fitters' office	combined	360	150-300	Sufficient
9.	Office No. 49 (EFP)	combined	975	150-300	Sufficient
10.	Office No. 45 (EFP)	combined	443	150-300	Sufficient
11.	Office No. 48	combined	355	150-300	Sufficient
12.	Office No. 22	combined	510	150-300	Sufficient
13.	BU Osečina - BU chief's office	combined	466	150-300	Sufficient
14.	BU Osečina - Maintenance officer's office	combined	505	150-300	Sufficient
15.	BU Osečina - Cash desk	combined	254	150-300	Sufficient
16.	BU Osečina - Fitter's room	combined	416	150-300	Sufficient
17.	BU Ub - BU chief's office	combined	433	150-300	Sufficient
18.	BU Ub - Maintenance officer's office	combined	450	150-300	Sufficient
19.	BU Ub - Cash desk	combined	390	150-300	Sufficient
20.	BU Ub - Fitter's room	combined	540	150-300	Sufficient
21.	BU Mionica - BU chief's office	combined	244	150-300	Sufficient
22.	BU Mionica - Maintenance officer's office	combined	266	150-300	Sufficient
23.	BU Mionica - Cash desk	combined	202	150-300	Sufficient



24.	BU Mionica - Fitter's room	combined	162	150-300	Sufficient
Secto	or for techinal services Lazarevac - winter				
			Monitorina		Note
No.	Measurement point		Illuminatio	n (lx)	
		Illumination	Measured	Sufficient	Illumination
1.	EEO HV fitters' room	combined	258	150-300	Sufficient
2.	EEO HV-TS fitters' room	combined	278	150-300	Sufficient
3.	Auto mechanic workshop	combined	303	80-150	Sufficient
4	Transformer workshop	combined	380	80-150	Sufficient
5	Locksmith workshop	combined	240	80-150	Sufficient
6	Warehouse staff workshop	combined	330	150-300	Sufficient
7.	Warehouse	combined	160	80-150	Sufficient
8.	EEO MV and LV Chief and maintenance officer's office	combined	280	150-300	Sufficient
9	Counter hall	combined	320	150-300	Sufficient
10.	Legal department	combined	710	150-300	Sufficient
	Officer, accountant, car park chief and warehouse officer's				
11.	office	combined	480	150-300	Sufficient
12.	EEO MV and LV fitters' room	combined	480	150-300	Sufficient
13.	Common affairs office	combined	296	150-300	Sufficient
14.	Finance and accounting department office	combined	410	150-300	Sufficient
15.	Finance department office	combined	355	150-300	Sufficient
16.	BU Ljig – fitters' room	combined	470	150-300	Sufficient
17.	BU Ljig - cash desk	combined	307	150-300	Sufficient
18.	BU Ljig – BU Chief and maintenance officer's office	combined	728	150-300	Sufficient
19.	BU Lajkovac - BU chief's office	combined	267	150-300	Sufficient
20.	BU Lajkovac - fitters' room	combined	151	150-300	Sufficient
21.	BU Lajkovac – officer's room	combined	190	150-300	Sufficient
22.	BU Lajkovac – cash desk	combined	355	150-300	Sufficient
Secto	or for techinal services Užice – summer				
			Monitoring		Note
No.	Measurement point		Monitoring Illumir	ation (Ix)	Note
No.	Measurement point	Illumination	Monitoring n Illumir Measured	ation (Ix)	Note Illumination
No.	Measurement point Sector for techinal services Užice –Guaranteed supply	Illumination	Monitoring n Illumir Measured	ation (Ix) Sufficient Average	Note Illumination
No. 1.	Measurement point Sector for techinal services Užice –Guaranteed supply sector manager's office – Dimitrija Tucovića 40, Užice	Illumination Combined - daylight+elect	Monitoring n Illumir Measured - 710	ation (Ix) Sufficient Average 150-300	Note Illumination Average
No. 1.	Measurement point Sector for techinal services Užice –Guaranteed supply sector manager's office – Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija	Illumination Combined - daylight+elect Combined -	Monitoring n Illumir Measured - tric 710 - 357	ation (lx) Sufficient Average 150-300 Average	Note Illumination Average
No. 1. 2.	Measurement point Sector for techinal services Užice –Guaranteed supply sector manager's office – Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice	Illumination Combined - daylight+elect Combined - daylight+elect	Monitoring n Illumir Measured - 710 - 357 tric 357	ation (Ix) Sufficient Average 150-300 Average 150-300	Note Illumination Average Average
No.	Measurement point Sector for techinal services Užice –Guaranteed supply sector manager's office – Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Office 1 – IMS and BZ –	Illumination Combined - daylight+elect Combined - daylight+elect Combined -	Monitoring n Illumin Measured tric 710 - 357 tric 402	ation (Ix) Sufficient Average 150-300 Average 150-300 Average	Note Illumination Average Average
No. 1. 2. 3.	Measurement point Sector for techinal services Užice – Guaranteed supply sector manager's office – Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Office 1 – IMS and BZ – Momčila Tešića 3, Užice	Illumination Combined - daylight+elect Combined - daylight+elect Combined - daylight+elect	Monitoring n Illumir Measured - 710 - 357 - 357 - 402	Average 150-300 Average 150-300 Average 150-300 Average 150-300	Note Illumination Average Average Average Average
No. 1. 2. 3. 4.	Measurement point Sector for techinal services Užice – Guaranteed supply sector manager's office – Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Office 1 – IMS and BZ – Momčila Tešića 3, Užice Sector for techinal services Užice – Low voltage	Illumination Combined - daylight+elect Combined - daylight+elect Combined - daylight+elect	Monitoring n Illumir Measured - 710 - 357 - 357 - 402 - 330	ation (lx) Sufficient Average 150-300 Average 150-300 Average 150-300	Note Illumination Average Average Average Average Average Average Average
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No. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18.	Measurement point Sector for techinal services Užice – Guaranteed supply sector manager's office – Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Office 1 – IMS and BZ – Momčila Tešića 3, Užice Sector for techinal services Užice – Low voltage maintenance department – Sevojno – Dragačevska bb BU Bajina Bašta – Cash desk BU Bajina Bašta – Technical service BU Priboj – Business secretary's office BU Priboj – Counter hall BU Priboj – On-duty dispatcher office BU Nova Varoš – Accountant's office BU Nova Varoš – Counter hall BU Požega – Employee rest room BU Požega – BU chief's office BU Požega – BU chief's office BU Arilje – EPS Electricity supply office BU Arilje – EPS Electricity supply office	Illumination Combined - daylight+elect Combined - daylight+elect Combined - daylight+elect Combined combined combined combined combined combined combined combined combined combined combined combined	Monitoring Illumin Measured - 710 - 357 - 402 - 402 - 330 - 402 - 330 - 402 - 330 - 310 412 556 422 760 96 300 334 104	ation (lx) Sufficient Average 150-300 Average 150-300 Average 150-300 Average 150-300 150-300 150-300 300 300 300 300 300 300 300 300 30	Note Illumination Average Average Average Average Sufficient Sufficient Within range Within range Within range Within range Within range Within range Sufficient Sufficient
No. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.	Measurement point Sector for techinal services Užice – Guaranteed supply sector manager's office – Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Low voltage maintenance department – Sevojno – Dragačevska bb BU Bajina Bašta – Cash desk BU Bajina Bašta – Cash desk BU Bajina Bašta – Cash desk BU Priboj – Business secretary's office BU Priboj – Counter hall BU Priboj – Counter hall BU Priboj – On-duty dispatcher office BU Nova Varoš – Accountant's office BU Nova Varoš – Counter hall BU Nova Varoš – Counter hall BU Nova Varoš – Counter hall BU Požega – Employee rest room BU Požega – BU chief's office BU Arilje – EPS Electricity supply office BU Kosjerić - Employee rest room BU Kosjerić – Employee rest room BU Kosjerić - Employee rest room BU Kosjerić – Employee rest room	Illumination Combined - daylight+elect Combined - daylight+elect Combined - daylight+elect Combined Combined combined combined combined combined combined combined combined combined combined combined combined combined	Monitoring Illumin Measured - 710 - 357 - 402 - 330 tric 330 - 402 - 330 tric 330 - 402 - 330 tric 310 344 215 1709 310 412 556 422 760 96 300 334 464	ation (lx) Sufficient Average 150-300 Average 150-300 Average 150-300 Average 150-300 Average 150-300 Average 150-300 150-300 80-150 150-300 80-150 150-300 450-300	Note Illumination Average Average Average Average Sufficient Sufficient Within range Within range Within range Within range Within range Within range Sufficient
No. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.	Measurement point Sector for techinal services Užice – Guaranteed supply sector manager's office – Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Office 1 – IMS and BZ – Momčila Tešića 3, Užice Sector for techinal services Užice – Low voltage maintenance department – Sevojno – Dragačevska bb BU Bajina Bašta – Cash desk BU Bajina Bašta – Technical service BU Priboj – Business secretary's office BU Priboj – Counter hall BU Priboj – Counter hall BU Priboj – On-duty dispatcher office BU Nova Varoš – Accountant's office BU Nova Varoš – Counter hall BU Nova Varoš – Counter hall BU Požega – Employee rest room BU Požega – BU chief's office BU Arilje - EPS Electricity supply office BU Arilje – EPS Electricity supply office BU Kosjerić – Employee rest room BU Kosjerić – Counter hall BU Kosjerić – Counter hall	Illumination Combined - daylight+elect Combined - daylight+elect Combined - daylight+elect Combined - daylight+elect combined combined combined combined combined combined combined combined combined combined combined combined combined	Monitoring Illumin Measured - 710 - 357 - 402 - 330 tric 330 - 402 - 330 tric 330 - 402 - 330 tric 330 261 355 347 344 215 1709 310 412 556 422 760 96 300 334 464 287	ation (lx) Sufficient Average 150-300 Average 150-300 Average 150-300 Average 150-300 Average 150-300 Average 150-300 150-300 150-300	NoteIlluminationAverageAverageAverageAverageAverageSufficientSufficientWithin rangeOut of rangeWithin rangeWithin rangeWithin rangeWithin rangeSufficient
No. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21.	Measurement point Sector for techinal services Užice – Guaranteed supply sector manager's office – Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Counter hall - Dimitrija Tucovića 40, Užice Sector for techinal services Užice – Office 1 – IMS and BZ – Momčila Tešića 3, Užice Sector for techinal services Užice – Low voltage maintenance department – Sevojno – Dragačevska bb BU Bajina Bašta – Cash desk BU Bajina Bašta – Technical service BU Priboj – Business secretary's office BU Priboj – Counter hall BU Priboj – On-duty dispatcher office BU Nova Varoš – Accountant's office BU Nova Varoš – On-duty dispatcher office BU Požega – Employee rest room BU Požega – BU chief's office BU Arilje – EPS Electricity supply office BU Kosjerić - Employee rest room BU Kosjerić - Counter hall BU Prijepolje – Counter hall	Illumination Combined - daylight+elect Combined - daylight+elect Combined - daylight+elect Combined - daylight+elect Combined combined combined combined combined combined combined combined combined combined combined combined combined combined combined combined combined	Monitoring Illumin Measured - 710 - 357 - 402 - 402 - 330 tric 330 - 402 - 330 tric 330 - 402 - 330 - 402 - 330 - 347 344 215 1709 310 412 556 422 760 96 300 334 464 287 202	ation (lx) Sufficient Average 150-300 Average 150-300 Average 150-300 Average 150-300 Average 150-300 Average 150-300 150-300 150-300	NoteIlluminationAverageAverageAverageAverageAverageSufficientSufficientWithin rangeOut of rangeWithin rangeWithin rangeWithin rangeWithin rangeWithin rangeSufficientSufficientSufficientSufficientSufficientSufficientSufficientSufficientSufficientSufficientSufficientSufficientSufficientSufficientSufficientSufficientAverageAverage



Tabla 142

11.3.2. Occupational Safety

Training

Training of employees is carried out according to the Program of training of employees for safe work.

Training of employees is presented in the Table 142 bellow and includes training of newly recruited employees and training of employees with narrow professional occupations.

TECHNICAL CENTER KRALJEVO						
Training in 2018						
Organizational unit	Number of	For tra	ining	Trai	ned	
organizational unit	employees	No	%	No	%	
Arandjelovac	71					
Health and Safety training	11	50	70,42	12	24,00	
Valjevo	131					
Health and Safety training	101	131	100,00	131	100,00	
Jagodina	145					
Health and Safety training	140	115	79,31	115	100,00	
Kraljevo	4 L					
Health and Safety training	100	2	1,05	2	100,00	
Health and Safety training – annual test	130	150	78,95	149	99,33	
Fire protection training – annual test		190	100,00	190	100,00	
Krusevac	147					
Health and Safety training		147	100,00	147	100,00	
Lazarevac	447		- I			
Health and Safety training		117	100,00	112	95,73	
Loznica						
Health and Safety training	122	66	54,10	45	68,18	
Fire protection training		122	100,00	122	100,00	
Novi Pazar						
Health and Safety training (Fruška Gora)		18	33,34	18	100,00	
Fire protection training (Fruška Gora)	54	18	33,34	18	100,00	
Health and Safety - test		36	66,67	36	100,00	
Health and Safety – test – Sekvestar Agency		10	18,52	10	100,00	
Uzice						
Health and Safety training	208	173	83,17	173	100,00	
Fire protection training		158	75,96	158	100,00	
Cacak						
Health and Safety training		2	1,23	2	100,00	
Health and Safety training – annual test		126	77,78	126	100,00	
Getting visitors acquainted with OHS measures	162	4	2,47	4	100,00	
Getting constractor acquainted with dangers and harmfulness		162	100.00	162	100.00	
and rules of conduct		102	100,00	102	100,00	
Sabac	132					
Health and Safety training	102	93	70,45	93	100,00	
HQ	123					
Health and Safety training	120	0	0,00	0	0,00	
	· · · · · ·					
TOTAL: TECHNICAL CENTER KRALJEVO	1.602	1.890	117,98	1.825	96,56	

Work injuries

Data on work injuries in 2018 are given in Table 143.

TECHNICAL CENTER KRALJEVO



Table 143

Work injuries in 2018							
Organizational unit	Number of	Number of Injuries			number of employees ratio		
Organizational unit	employees	Light	Serious	Fatalities	Total	%	
Arandjelovac	71	3	0	0	3	4,23	
Valjevo	131	0	0	0	0	0,00	
Jagodina	145	5	2	0	7	4,83	
Kraljevo	190	1	1	0	3	1,58	
Krusevac	147	2	0	0	2	1,36	
Lazarevac	117	6	0	0	6	5,13	
Loznica	122	2	0	0	2	1,64	
Novi Pazar	54	1	0	0	1	1,85	
Uzice	208	1	1	1	3	1,44	
Cacak	162	0	0	0	0	0,00	
Sabac	132	1	1	0	2	1,52	
HQ TC Kraljevo	123	1	0	0	1	0,81	
TOTAL: TECHNICAL CENTER KRALJEVO	1.602	23	5	1	30	1,87	

During 2018, one injuriy with fatal outcome occurred in the Technical Center Kraljevo.

11.3.3. Health

Data on periodic medical examinations of employees are given in Table 144.

Table 144

TECHNICAL CENTER KRALJEVO											
Health in 2018											
	of es	Pe	Periodical examination		Capability for work						
Organizational unit	mber o	Refer exami	red to nation	Exan Refe	nined/ erred	Сар	able	Lim capa	ited bility	Inca	pable
	NL	No	%	No	%	No	%	No	%	No	%
Arandjelovac	71	50	70,42	50	100,00	45	90,00	5	10,00	0	0,00
Valjevo	131	78	59,54	78	100,00	66	84,62	12	15,38	0	0,00
Jagodina	145	115	79,31	115	100,00	104	90,43	11	9,57	0	0,00
Kraljevo	190	127	66,84	125	98,43	94	75,20	31	24,80	0	0,00
Krusevac	147	118	80,27	118	100,00	91	77,12	23	19,49	4	3,39
Lazarevac	117	67	57,26	67	100,00	51	76,12	13	19,40	3	4,48
Loznica	122	66	54,10	66	100,00	64	96,97	2	3,03	0	0,00
Novi Pazar	54	36	66,67	35	97,22	29	82,86	6	17,14	0	0,00
Uzice	208	130	62,50	130	100,00	113	86,92	17	13,08	0	0,00
Cacak	162	121	74,69	116	95,87	89	76,72	27	23,28	0	0,00
Sabac	132	111	84,09	109	98,20	91	83,49	15	13,76	3	2,75
HQ	123	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
TOTAL: TECHNICAL CENTER KRALJEVO	1.602	1.019	63,61	1.009	99,02	837	82,95	162	16,06	10	0,99

11.4. Public Complaints

There were no public complaints in TC Kraljevo in 2018.



12. TECHNICAL CENTER KRAGUJEVAC

TC Kragujevac comprises:

- 1. TC Kragujevac headquarters
- 2. Technical services department (TSD) Kragujevac
- 3. TDS Požarevac
- 4. TSD Smederevo

in which the maintenance of the power facilities is performed based on the provision of services under the SLA Contract for the Distribution System Operator (DSO).

From the technical and technological aspects, maintenance is carried out in the following systems:

- Transformer station;
- Distribution overhead cable lines;
- Distribution underground cable lines;
- Measuring point (MP).

12.1. Overview and Status of Permits

Overview and status of permits, licenses and other required approvals, as well as new licence requests in 2018, Power facilities, are not in jurisdiction of TC Kragujevac, but in the jurisdiction of DSO as a owner of Power facilities.

12.2. Monitoring and Environmental Impact

Environmental impact factors of TC Kragujevac are:

- Electromagnetic fields
- Environmental noise
- Waste
- Surface and ground waters quality
- Soil quality

12.2.2. Electromagnetic Fields

During 2018, electromagnetic field measurements were not performed.

12.2.3. Waste

During 2018, wase is not generated in TC Kragujevac.

12.2.4. Surface, Ground waters and Soil Monitoring

Monitoring of surface and undergoround waters, as well as monitoring of soil in 2018 was not performed.

12.3. Working Environment Monitoring, Health and Safety

Reports on occupational safety and health protection for 2018. include the following items:

Working Environment Monitoring

- working environment noise measurements
- working environment electromagnetic fields
- working environment parameters



Safety

- training
- work injuries
- Health

12.3.1. Working Environment Monitoring

Working environment noise measurement

Measurements of working environment noise were not performed in 2018, which is shown in Table 145.

			Table 145			
TECHNICAL CENTER Krag	TECHNICAL CENTER Kragujevac					
Working environment nois	se for 2018					
Technical services department/Facility	Unit	Registered noise level (dB(A))	Permitted noise level (dB(A))			
TSD Kragujevac	Auto Mechanical Workshop – Beogradska nn	69	85			
	Office of duty service – Lapovo	56	85			
	Locksmith workshop – Smederevo	84	85			
TSD Smederevo	Auto Mechanical Workshop – S. Palanka	78	85			

- Electromagnetic fields in the working environment

Testing of the electromagnetic field in the working environment was carried out in 2018, which is shown in Table 146.

Та	h	le1	46	5
тu	v		I Т (,

TECHNICAL CENTER Kragujevac						
Electromagnetic field in working environment for 2018						
Technical services department/Facility	Unit	The strength of electromagnetic field (V/m) Permitted (1000)	Density of electromagnetic flow B Permitted (µT) (500)			
TSD Kragujevac	Duty service, Lapovo	10,1	62,7			
TSD Smederevo	Dispatch center Požarevac	4,08	35,3			

Working environment parameters

Testing of chemical hazards, microclimate, illumination in the workplace and in the work environment was performed in 2018, as shown in Tables 147, 148 and 149.



TECHNICAL CENTER KRAGUJEVAC						
Chemical hazrd in working environment for 2018						
Technical services department	Unit	Benzene (mg/m3) Permitted (3,25)	Carbon monoxide (mg/m3) Permitted (55)	Mineral dust with less than 1% SiO2 (mg/m ³) Permitted (15)		
Technical services department Kragujevac	Auto Mechanical Workshop, Divlje polje	0,3	1,16	1		
Technical services department Požarevac	Auto Mechanical Workshop, Požarevac	1	0,71	0,85		
Technical services	Auto Mechanical Workshop, S. palanka, Radmile Šiškovića 2		0,75	0,98		
Smederevo	Locksmith workshop, Šalinačka.60	1	1,09	2,75		

Microclimate in the w	IECHNICAL CENTER KRAGUJEVAC					
Technical services department/Facility	Unit	Air temperature(C) Permitted (15-28)	Relative air humidity (%) Permitted (max 75)	Air flow speed (m/s) Permitted (max 0.5)		
	Slobode street 7		(
	Office No.307	22,6	52.8	0,09		
	Office No.303	23.5	51.1	0.08		
	Office No.222	24.6	47.4	0.07		
	Office No.231	24,8	43,0	0,07		
	Office No.238	24,8	44,1	0,08		
TC Kragujevac HQ	Office No.105	25,0	44,6	0,09		
	Office No.147	25,0	45,3	0,08		
	Office No.121	24,1	46,9	0,08		
	Office No.75	24,4	47,7	0,09		
	Office No.23	23,7	49,0	0,12		
	Office No.36	26,4	48,4	0,07		
	Office No.32	26,6	47,1	0,08		
	Divlje polje - Beogradska nn					
	Auto Mechanical Workshop, Divlje polje	24,3	50,9	0,10		
	Office of rolling stock	23,5	51,5	0,07		
	Office VGM 3	23,0	59,4	0,08		
	Office VGM 1	23,1	56,4	0,12		
	Office GM	23,4	51,1	0,08		
	Vehicle Maintenance Office - Divlie polje	24,8	49,5	0,07		
Technical com/icco	Office GM 3	23,5	53,0	0,08		
l echnical services	Cashier	23,7	51,1	0,06		
Kraquiovac	Branch Knić – Knić street nn					
Magujevac	Office of the head of branch Knić					
	Cashier	23,4	55,2	0,09		
	Branch Lapovo					
	Cashier – Njegoševa street	26,2	50,7	0,07		
	Office of duty service, Karađorđeva street 109	26,1	43,8	0,08		
	Branch Batočina – Kneza Miloša Obrenovića street nn					
	Office Duty service	26,4	45,3	0,09		



	r	()		
	Cashier	26,1	43,8	0,08
	Branch Rača - Šumadijska	,	,	,
	ofreet no			
	street nn			
	Room for electric fitter	26,1	50,4	0,07
	Cashier	27.2	49,5	0.09
	Duty service office	26.4	49 9	0.07
	Levens Čerkonović - No. 47	20, 1		0,01
	Jovana Serbanovica No. 1/			
	Duty service	27,8	45,7	0,08
	Dispatch center	27.6	53	0.09
	Auto Mechanical Workshop	27.7	12.8	0.11
		21,1	42,0	0,11
	Office No.11	26,3	46,6	0,06
	Office No.18	26,3	48	0,07
	Office of warehouse clerk	27	47	0.08
	Warehouse	27.4	46.2	0,00
	Wateriouse	27,4	40,2	0,09
	Hangar	27,9	42,6	0,11
	Petrovački put nn			
	Cashier Malo Crniće	27.7	48.1	0.06
	Office of oustomore' service	,.	,.	0,00
	alark Mala Craite	27,2	50,1	0,07
		,	,	,
	Mlavska No. 18			
	Office No.2 Petrovac na Mlavi	27	46.7	0.07
	Emergency service room		,.	-,
		27,2	39,7	0,08
	Petrovac na Miavi	,		
	Workshop Petrovac na Mlavi	27,3	44,4	0,09
	Glavna nn			
	Emergency service room			
		28,7	45,2	0,07
		├		
	Office of customers' service	26.9	43.6	0 08
Technical services	head clerk - Veliko Laole	20,0	+0,0	0,00
department	Žike Popovića nn			
Dožarovac	Cashier Babrava	04	E3 E	0.02
1 02015705		۲4	55,0	0,00
	Unice of electric fitter -	24 0	53.2	0 07
	Rabrovo	∠⊤,∨	00,2	0,01
	Svetog Save street No. 256			
	Office No 4 - Kučevo	24.1	52 7	0 07
		<u> </u>	54.0	0,01
	Cashier- Kucevo	24,U	54,3	0,08
	Workshop - Kučevo	23,3	54,3	0,08
	Dunavski kei No. 4			
	Office of electric fitter - Golubeo	26.3	57 3	0.06
	Office of electric fitter - Golubac	26,3	57,3	0,06
	Office of electric fitter - Golubac Cashier- Golubac	26,3 26,5	57,3 55,4	0,06 0,09
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11	26,3 26,5	57,3 55,4	0,06 0,09
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište	26,3 26,5 26,3	57,3 55,4 50,4	0,06 0,09 0,07
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište	26,3 26,5 26,3 26,3	57,3 55,4 50,4 52,5	0,06 0,09 0,07 0,07
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter Veliko	26,3 26,5 26,3 26,8	57,3 55,4 50,4 52,5	0,06 0,09 0,07 0,07
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko	26,3 26,5 26,3 26,8 25,7	57,3 55,4 50,4 52,5 59	0,06 0,09 0,07 0,07 0,08
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište	26,3 26,5 26,3 26,8 25,7	57,3 55,4 50,4 52,5 59	0,06 0,09 0,07 0,07 0,08
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn	26,3 26,5 26,3 26,8 25,7	57,3 55,4 50,4 52,5 59	0,06 0,09 0,07 0,07 0,08
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac	26,3 26,5 26,3 26,8 25,7 26,5	57,3 55,4 50,4 52,5 59 36.8	0,06 0,09 0,07 0,07 0,08 0.12
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac	26,3 26,5 26,3 26,8 25,7 26,5 26,5 26,4	57,3 55,4 50,4 52,5 59 36,8 37,8	0,06 0,09 0,07 0,07 0,08 0,12 0,10
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac	26,3 26,5 26,3 26,8 25,7 26,5 26,4	57,3 55,4 50,4 52,5 59 36,8 37,8	0,06 0,09 0,07 0,07 0,08 0,12 0,10
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra	26,3 26,5 26,3 26,8 25,7 26,5 26,4	57,3 55,4 50,4 52,5 59 36,8 37,8	0,06 0,09 0,07 0,07 0,08 0,12 0,10
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn	26,3 26,5 26,3 26,8 25,7 26,5 26,5 26,4	57,3 55,4 50,4 52,5 59 36,8 37,8	0,06 0,09 0,07 0,07 0,08 0,12 0,10
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office	26,3 26,5 26,3 26,8 25,7 26,5 26,4	57,3 55,4 50,4 52,5 59 36,8 37,8	0,06 0,09 0,07 0,07 0,08 0,12 0,10
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac	26,3 26,5 26,3 26,8 25,7 26,5 26,4 27	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9	0,06 0,09 0,07 0,07 0,08 0,12 0,10 0,08
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac	26,3 26,5 26,3 26,8 25,7 26,5 26,4 27 27 26,8	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9 46,9	0,06 0,09 0,07 0,07 0,08 0,12 0,10 0,08 0,08
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac Cashier- Aleksandrovac	26,3 26,5 26,3 26,8 25,7 26,5 26,4 27 26,8	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9 46,6	0,06 0,09 0,07 0,07 0,08 0,12 0,10 0,08 0,08 0,09
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac Cashier - Aleksandrovac Šalinačka No. 60	26,3 26,5 26,3 26,8 25,7 26,5 26,4 27 26,8	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9 46,6	0,06 0,09 0,07 0,07 0,08 0,12 0,10 0,08 0,08 0,09
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac Cashier - Aleksandrovac Šalinačka No. 60 Locksmith workshop	26,3 26,5 26,3 26,8 25,7 26,5 26,4 27 26,8 25,8	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9 46,6 47,9	0,06 0,09 0,07 0,07 0,08 0,12 0,10 0,08 0,08 0,09 0,08
	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac Cashier- Aleksandrovac Šalinačka No. 60 Locksmith workshop Workshop of group for	26,3 26,5 26,3 26,8 25,7 26,5 26,4 27 26,8 25,8 25,8 20,2	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9 46,6 47,9	0,06 0,09 0,07 0,07 0,08 0,12 0,10 0,08 0,08 0,09 0,08
Technical services	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac Cashier- Aleksandrovac Šalinačka No. 60 Locksmith workshop Workshop of group for substations maintenance	26,3 26,5 26,3 26,8 25,7 26,5 26,4 27 26,8 27 26,8 25,8 26,6	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9 46,9 46,6 47,9 45,5	0,06 0,09 0,07 0,07 0,08 0,12 0,12 0,10 0,08 0,08 0,08 0,08
Technical services department	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac Cashier- Aleksandrovac Šalinačka No. 60 Locksmith workshop Workshop of group for substations maintenance	26,3 26,5 26,3 26,8 25,7 26,5 26,4 27 26,8 25,8 26,6 26,6 26,0	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9 46,9 46,6 47,9 45,5	0,06 0,09 0,07 0,07 0,08 0,12 0,12 0,10 0,08 0,08 0,08 0,08 0,08
Technical services department Smederevo	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac Cashier - Aleksandrovac Šalinačka No. 60 Locksmith workshop Workshop of group for substations maintenance Warehouse	26,3 26,5 26,3 26,8 25,7 26,5 26,4 27 26,8 25,8 26,6 26,2	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9 46,9 46,6 47,9 45,5 45,9	0,06 0,09 0,07 0,07 0,08 0,12 0,12 0,10 0,08 0,08 0,08 0,08 0,08 0,08
Technical services department Smederevo	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac Cashier - Aleksandrovac Šalinačka No. 60 Locksmith workshop Workshop of group for substations maintenance Warehouse Dispatch center	26,3 26,5 26,3 26,8 25,7 26,5 26,4 26,4 27 26,8 25,8 26,6 25,8 26,6 26,2 26,8	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9 46,9 46,6 47,9 45,5 45,9 45,9 45,0	0,06 0,09 0,07 0,07 0,08 0,12 0,12 0,10 0,08 0,08 0,08 0,08 0,08 0,08 0,08
Technical services department Smederevo	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac Cashier - Aleksandrovac Šalinačka No. 60 Locksmith workshop Workshop of group for substations maintenance Warehouse Dispatch center Counter hall	26,3 26,5 26,3 26,8 25,7 26,5 26,4 27 26,5 26,4 25,8 26,6 26,2 26,8 26,6 26,2 26,8 26,4	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9 46,9 46,6 47,9 45,5 45,9 45,0 46,1	0,06 0,09 0,07 0,07 0,08 0,12 0,10 0,08 0,08 0,08 0,08 0,08 0,08 0,08
Technical services department Smederevo	Office of electric fitter - Golubac Cashier- Golubac Voje Bogdanovića No. 11 Counter hall - Veliko Gradište Duty service - Veliko Gradište Room for electric fitter - Veliko Gradište Bože Dimitrijevića nn Cashier Kostolac Manager's office - Kostolac Kralja Aleksandra Obrenovića nn Branch manager's office Aleksandrovac Cashier - Aleksandrovac Šalinačka No. 60 Locksmith workshop Workshop of group for substations maintenance Warehouse Dispatch center Counter hall Office No 40	26,3 26,5 26,3 26,8 25,7 26,5 26,4 27 26,8 25,8 26,6 26,2 26,8 26,6 26,2 26,8 26,4 26,4 26,4 26,2	57,3 55,4 50,4 52,5 59 36,8 37,8 46,9 46,9 46,6 47,9 45,5 45,9 45,5 45,9 45,0 46,1 45,1	0,06 0,09 0,07 0,07 0,08 0,12 0,10 0,08 0,08 0,08 0,08 0,08 0,08 0,08



Office No.42 26,1 47,7 0,0 Office No.60 26,4 47,6 0,0)9)7
Office No.60 26,4 47,6 0,0)7
Momira Gajića No. 1	
Office No.8 - Velika Plana 23,0 55,7 0,0)8
Office No.9 - Velika Plana 23,2 54,2 0,0)7
Office No.17 - Velika Plana 23,5 51,7 0,1	2
Office No.22 - Velika Plana 23,9 52,1 0,0)8
Radmile Šišković No. 2	
Auto Mechanical Workshop - Smederevska Palanka23,061,00,1	1
Cashier- Smederevska Palanka23,457,80,0)7
Office No.9 – Smederevska 23,7 56,3 0,0)8
Office No.20 – Smederevska 23,7 55,8 0,0)7
Office No.29 – Smederevska 24,1 56,3 0,0)8
Office of warehouse clerk – 24,3 56,7 0,0)7

TECHNICAL CENTER KRAGUJEVAC				
Illumination in working environment for 201	8		-	
Technical services department/Facility	Unit	Average (Lx)	Minimum Permitted (Lx)	
	Slobode street 7			
	Office No.307	512	150	
	Office No.303	890	150	
	Office No.222	601	80	
	Office No.231	454	150	
	Office No.238	808		
Headquarters Kragujevac	Office No.105	785	150	
	Office No.147	810		
	Office No.121	358	150	
	Office No.75	812	150	
	Office No.23	365	150	
	Office No.36	689	150	
	Office No.32	337	150	
	Divlje polje – Beogradska nn			
	Auto Mechanical Workshop, Divlje polje	270	150	
	Office of rolling stock	915	150	
	Office VGM 3	238	150	
	Office VGM 1	513	150	
	Office GM	718	80	
	Vehicle Maintenance Office – Divlje polje	331	150	
Technical services denartment	Office GM 3	493	150	
Kraquievac	Cashier	509	150	
Technical services department Požarevac	Branch Knić – Knić street nn			
	Branch manager's office Knić	273	150	
	Cashier	234	150	
	Branch Lapovo			
	Cashier – Njegoševa street	163	150	
	Office of duty service	205		
	Karađorđeva street No. 109	200		
	Branch Batočina – Kneza Miloša Obrenovića street nn			



Office Duty service	285	150
Cashier	256	150
Branch Rača – Šumadijska		
street nn		
Room for electric fitter	201	150
Cashier	639	150
Duty service office	224	150
Jovana Šerbanovića No. 17		
Duty service	248	150
Dispatch center	485	80
Auto Mechanical Workshop	430	80
Office No.11	533	
Office No.18	922	150
Office of warehouse clerk	710	150
Warehouse	854	300
Hangar	615	150
Petrovački put nn		
Cashier Malo Crniće	348	150
Office of customers' service		
clerk Malo Crniće	524	150
Mlavska No. 18		
Office No 2 Petrovac na Mlavi	1355	80
Emergency service room	1000	
Petrovac na Mlavi	427	150
Workshop Petrovac na Mlavi	524	
Glavna nn		
Emergency service room Veliko	070	450
Laole	278	150
Office of customers' service head clerk – Veliko Laole	625	150
Žike Popovića nn		
Caphian Dahrawa	200	450
Cashier - Kabrovo	299	150
Unice of electric fitter – Kabrovo	211	150
Svetog Save street No. 256		
Office No.4 – Kučevo	202	150
Cashier – Kučevo	674	150
Workshop – Kučevo	658	150
Dunavski kej No. 4		
Office of electric fitter – Golubac	173	150
Cashier – Golubac	524	150
Voje Bogdanovića No. 11	-	
Counter hall – Veliko Gradište	210	150
Duty service – Veliko Gradište	177	150
Room for electric fitter – Veliko		
Gradište	193	150
Bože Dimitrijevića nn		
Cashier Kostolac	331	150
Manager's office – Kostolac	583	150
Kralja Aleksandra Obrenovića		
nn		
Branch manager's office	740	150
Aleksandrovac	104	150
Cashier – Aleksandrovac	194	150



	Šalinačka No. 60		
	Locksmith workshop	238	
	Workshop of group for substations maintenance	278	150
	Warehouse	372	300
	Dispatch center	214	300
	Counter hall	266	300
	Office No.40	512	300
	Office No.42	314	300
	Office No.60	274	300
	Momira Gajića No. 1		
	Office No.8 – Velika Plana	317	300
	Office No.9 – Velika Plana	170	300
Technical services department	Office No.17 – Velika Plana	390	300
Smederevo	Office No.22 – Velika Plana	552	300
	Radmile Šišković No. 2		
	Auto Mechanical Workshop – Smederevska Palanka	298	150
	Cashier – Smederevska Palanka	714	300
	Office No.9 – Smederevska Palanka	423	300
	Office No.20 – Smederevska Palanka	324	300
	Office No.29 – Smederevska Palanka	624	300
	Office of warehouse clerk – Smederevska Palanka	173	300

12.3.2. Occupational Safety

Training

Training of employees is presented in the Table 150.

TECHNICAL CENTER KRAGUJEVAC						
Training in 2018						
Department/Unit	Number of	For tr	aining	Tra	ined	
Department/Onit	employees	No.	%	No.	%	
TC HQ						
Training for safe operation according to the Act on risk assessment –	119	8	6,72	8	100,00	
introduction to risks and protection measures, firefighting protection						
Kragujevac Department						
Training for safe operation according to the Act on risk assessment –		106	68,83	35	33,02	
introduction to risks and protection measures, firefighting protection	154					
Training of electric fitter with protection equipment for work on		35	22.22	10	28 57	
overhead lines		35	22,13	10	20,37	
Požarevac Department		38	36,89	38	100,00	
Training of electric fitter with protection equipment for work on		10	0.71	10	100.00	
overhead lines	103	10	9,71	10	100,00	
Training for safe operation according to the Act on risk assessment –		68	66 02	າາ	20.25	
introduction to risks and protection measures		00	00,02	22	52,55	
Smederevo Department						
Training for safe operation according to the Act on risk assessment –		50	71 / 2	24	18.00	
introduction to risks and protection measures	70	50	71,45	24	40,00	
Training of electric fitter with protection equipment for work on		10	25 71	10	55 56	
overhead lines		10	25,71	10	55,50	
TOTAL: TECHNICAL CENTER KRAGUJEVAC	446	333	74,66	157	47,15	

Training of engaged persons is shown in Table 151.



Table 151

TECHNICAL CENTER KRAGUJEVAC								
Training of engaged persons in 2018								
Department/Unit	For training		Tra	ained				
Departmentromit	No.	%	No.	%				
TC HQ								
Training for the safe work of the contractor (Obilić, Inkom, Komel – transformatori, GAT)	6	100,00	6	100,00				
Kragujevac Department								
Training for safe and healthy work for employees' leasing Sekvesta	26	100,00	26	100,00				
Training for the safe work of the contractor (Obilić, Inkom, Komel – transformatori, GAT)	28	100,00	28	100,00				
Training for the safe operation of hygienists	10	100,00	10	100,00				
Training for the safe operation of physical and technical security	14	100,00	14	100,00				
Požarevac Department								
Training for safe and healthy work for employees' leasing Sekvesta	38	100,00	38	100,00				
Training of works' subcontractor "Jadran" d.o.o. Belgrade on performing works of mounting and painting the fence within substation in Požarevac	8	100,00	8	100,00				
Training for the safe work of the contractor (Obilić, Inkom, Komel – transformatori, GAT)	21	100,00	21	100,00				
Training for the safe operation of hygienists	12	100,00	12	100,00				
Training for the safe operation of physical and technical security	13	100,00	13	100,00				
Smederevo Department								
Training for safe and healthy work for employees' leasing Sekvesta	23	100,00	23	100,00				
Training for the safe operation of hygienists	6	100,00	6	100,00				
Training for the safe operation of physical and technical security	25	100,00	25	100,00				
Training for the safe work of the contractor (Obilić, Inkom, Komel – transformatori, GAT)	19	100,00	19	100,00				
TOTAL: TECHNICAL CENTER KRAGUJEVAC	249	100,00	249	100,00				

Work injuries

Data on number of injuries for 2018 are given in Table 152

Table 152

TECHNICAL CENTER KRAGUJEVAC						
Work injuries in 2018						
Number of Injuries – number of employees ratio					ratio	
Department/offic	employees	Light	Serious	Fatalities	Total	%
TC HQ	119	5	0	0	5	4,20
Kragujevac Department	154	3	2	0	5	3,25
Požarevac Department	103	1	0	0	1	0,97
Smederevo Department	70	4	0	0	4	5,71
TOTAL: TECHNICAL CENTER KRAGUJEVAC	446	13	2	0	15	3,36

12.3.3. Health

Periodical medical examination data are given in the Table 153.

TECHNICAL CENTER KRAGUJEVAC

Working capacity in 2018											
		Previous and periodical examinations			Capability for work						
Department/Unit	Number of employees e	Referred to Examination		mined Capable		Limited capability		Incapable			
		No.	%	No.	%	No.	%	No.	%	No.	%
TC HQ	119	15	12,61	15	100,00	10	66,67	5	33,33	0	0,00
Kragujevac Department	154	122	79,22	122	100,00	97	79,51	23	18,85	2	1,64
Pozarevac Department	103	77	74,76	77	100,00	58	75,32	19	24,68	0	0,00
Smederevo Department	70	50	71,43	50	100,00	45	90,00	5	10,00	0	0,00
TOTAL: TECHNICAL CENTER KRAGUJEVAC	446	264	59,19	264	100,00	210	79,55	52	21,59	2	0,76

12.4. Public Complaints

There were no public complaints in 2018.



13. TECHNICAL CENTER NIŠ

Distribution network has not become a part of Technical Center Nis. Substations and cable lines are owned by DSO "EPS Distribucija".

13.1. Overview and Status of Permits

Overview and status of permits, licences and other necessary approvals in 2018 were not carried out. There were no new applications for permits.

13.2. Monitoring and Environmental Impact

Environmental impact factors for TC Nis are:

- Electromagnetic fields
- Environmental noise
- Waste
- Surface and groundwater quality
- Soil quality

13.2.1. Electromagnetic Fields

Electromagnetic field measurements were not conducted in 2018.

13.2.2. Environmental Noise

Environmental noise measurements were not conducted in 2018.

13.2.3. Waste

Technical Center Nis did not generate waste in 2018.

13.2.4. Surface, Ground Waters and Soil Monitoring

Quality analysis of surface and groundwater, as well as soil in 2018 was not performed on the territory of TC Nis.

13.3. Working Environment Monitoring, Occupational Health and Safety

Occupational Health and Safety Reports for 2018 include the following activities:

Working environment monitoring

- working environment noise measurements
- Electromagnetic fields in the working environment
- Working environment parameters

Safety

- training
- work injuries
- Health

13.3.1. Working Environment Monitoring

Measurements and testing of the Working Environment are performed in accordance with the Law on Safety and Health at Work ("Official Gazette of RS", No 101/05 and 91/15) and The Rulebook on Procedures for Inspection and Testing of Equipment for Work and Testing of the Working Environment ("Official Gazette of RS", No. 94/06, 108/06-correction, 114/14 and 102/15).



• Working noise measurements

During 2018 in Technial center Niš testing of working environment for the winter and summer period is carried out and the results of measurements are shown in Tables 154 and 155. In the offices not included in the table, noise does not represent the polluter.

			Table 154						
TECHNICAL CENT	TECHNICAL CENTER NIŠ								
Working noise in 2	Working noise in 2018 – winter period								
Technical services department	Examination subject	Registered noise level in working rooms in dB (A)	Permitted noise level in dB (A)						
	Unit Aleks	inac							
	Auto Mechanical Workshop	62	85						

Table 155

TECHNICAL CENT	FER NIŠ							
Working noise in 2	2018 – summer period							
Technical services department	Examination subject	Registered noise level in working rooms in dB (A)	Permitted noise level y dB (A)					
	Unit A	Aleksinac						
TSD Niš	Auto Mechanical Workshop	66	85					
	Locksmith workshop	83	85					
	TDS	Pirot HQ						
	Auto Mechanical Workshop	78	85					
	Ауто-перионица	82	85					
	Locksmith workshop	82	85					
	Branch Dimitrovgrad							
TSD Diret	Auto Mechanical Workshop	73	85					
13D FIIOL	Locksmith workshop	76	85					
	Branch Babušnica							
	Auto Mechanical Workshop	68	85					
	Locksmith workshop	72	85					
	Branch E	Bela Palanka						
	Locksmith workshop	73	85					
TSD Vrania	Unit	t Vranje						
15D vranje	Locksmith workshop	81	85					

Electromagnetic fields in the working environment

Measurements of environmental electromagnetic fields were not performed in 2018.

Working environment parameters

During 2018, in the Technical Center Nis, testing of working conditions for the winter and summer period were carried out, and the results of the measurements are given in the accompanying Tables.

Monitoring of temperature, humidity and velocity parameters for winter and summer period 2018 are given in Tables 156 and 157.



TECHNICAL CENTER NIŠ								
Temper	Temperature, relative humidity and velocity in 2018 – winter period							
Technic	Technical services department Niš							
SN.	Measurement point		Monitoring	Note				
		t *C	Rv %	Vm/s	Comfort zone			
1.	Branch Gadžin Han – Branch manager's office	18,9	52,4	0,06	Within zone			
2.	Branch Gadžin Han – Cashier	18,5	53,5	0,06	Within zone			
3.	Branch Niška Banja – Clerks' office	20,1	49,4	0,06	Within zone			
4.	Branch Niška Banja – Cashier	21,5	46,2	0,05	Within zone			
5.	Unit Aleksinac – Administrative building – Manager's office	21,3	44,4	0,04	Within zone			
6.	Unit Aleksinac – Administrative building – Cashier	22,9	48,4	0,06	Within zone			
7.	Unit Aleksinac – Administrative building – Office for market support	19,2	41,8	0,06	Within zone			
8.	Unit Aleksinac – Dispatchers' office	19,2	42,1	0,08	Within zone			
9.	Unit Aleksinac – Auto Mechanical Workshop	15,4	58,7	0,09	Within zone			
10.	Unit Aleksinac – Warehouse	15,1	62,5	0,07	Within zone			
11.	Unit Aleksinac – Office of warehouse clerk	18,9	61,5	0,06	Within zone			
12.	Unit Aleksinac – Office of rolling stock	18,6	55,8	0,05	Within zone			
13.	Branch Gornja Toponica – Clerks' office	18,7	55,3	0,07	Within zone			
14.	Branch Gornja Toponica – Branch manager's office	19,1	50,7	0,05	Within zone			
15.	Branch Matejevac – Branch manager's office	20,9	51,7	0,06	Within zone			
16.	Branch Matejevac – Cashier	22,9	36,7	0,07	Within zone			
17.	Branch Doljevac - Branch manager's office	21,9	40,7	0,05	Within zone			
18.	Branch Doljevac – Cashier	21,2	41,4	0,06	Within zone			
19.	Branch Doljevac – Clerks' office	20,3	41,9	0,05	Within zone			

Note: In accordance with the Risk Assessment Act, the foreseen personal protective equipment for employees are given for use (winter work clothing). The organization of work reduces the duration of exposure to low temperature in cases where employees stay within the premises, in order to perform a certain work assignment. Room for warming up employees is provided

TECHNI	TECHNICAL CENTER NIŠ							
Temper	Temperature, relative humidity and velocity in 2018 – summer period							
Technical services department Niš								
S.N.	Measurement point		Monitoring		Note			
		t *C	Rv %	Vm/s	Comfort zone			
1.	Branch Gadžin Han – Branch manager's office	23,8	68,3	0,08	Within zone			
2.	Branch Gadžin Han – Cashier	24,6	63,2	0,09	Within zone			
3.	Branch Niška Banja – Clerks' office	24,2	63,9	0,08	Within zone			
4.	Branch Niška Banja – Cashier	24,4	63,2	0,09	Within zone			
5.	Unit Aleksinac – Administrative building – Manager's office	26,3	54,2	0,08	Within zone			
6.	Unit Aleksinac – Administrative building – Cashier	25,8	58,4	0,07	Within zone			
7.	Unit Aleksinac – Administrative building – Office for market support		59,1	0,09	Within zone			
8.	Unit Aleksinac – Dispatchers' office	27,5	51,8	0,11	Within zone			
9.	Unit Aleksinac – Auto Mechanical Workshop	27,7	53,3	0,12	Within zone			
10.	Unit Aleksinac – Warehouse	27,8	50,5	0,09	Within zone			
11.	Unit Aleksinac – Locksmith workshop	27,4	53,3	0,10	Within zone			
12.	Branch Gornja Toponica – Cashier	24,9	63,0	0,10	Within zone			
13.	Branch Gornja Toponica – Branch manager's office	24,7	64,6	0,11	Within zone			
14.	Branch Matejevac – Branch manager's office	23,8	67,8	0,08	Within zone			
15.	Branch Matejevac – Cashier	23,4	68,3	0,09	Within zone			
16.	Branch Doljevac - Branch manager's office	26,8	52,0	0,11	Within zone			
17.	Branch Doljevac – Cashier	26,8	51,2	0,08	Within zone			
18.	8. Branch Doljevac – Room for electric fitter 26,6 51,1 0,09 Within zone							
Technic	al services department Pirot		•	•				
1.	Office No. 5	25,7	54	0,07	Within zone			



2.	Dispatch center	25,6	54,2	0,11	Within zone
3.	Emergency service room	24,7	62,7	0,10	Within zone
4.	Counter hall	24,8	64,8	0,10	Within zone
5.	Cashier	26.1	58.4	0.08	Within zone
6.	Room for electric fitter	24.5	63.7	0.11	Within zone
7.	Auto Mechanical Workshop	24.1	64.7	0.09	Within zone
8	Car wash	23.3	68.1	0.08	Within zone
9	Office of warehouse clerk	23.4	71.6	0.09	Within zone
10		24.8	64.3	0.09	Within zone
10.	"Nova Lokacija" Gnjilan – Counter hall	26.6	53.8	0.08	Within zone
12	"Nova Lokacija" Gnjilan – Office of warehouse clerk	23,2	71.2	0.06	Within zone
12.	"Nova Lokacija" Gnjilan – Warehouse poče	23.0	66.4	0,00	Within zone
10.	"Nova Lokacija" Grijilan – Oil and lubricants warehouse	23,5	72.5	0,00	Within zone
14.	"Nova Lokacija" Gnjilan – Oli and tubilcants wateriouse	22,5	12,5	0,07	Within 2016
15.	storage of waste	23,1	69,7	0,08	Within zone
16	BL Dimitrovarad Counter hall	26.0	56.6	0.07	Within zono
10.	BU Dimitrovgrad – Counter Itali	20,9	55,0	0,07	Within zone
17.	BU Dimitrovgrad – Room for electric filler	25,5	59,9	0,09	Within zone
10.	BU Dimitrovgrad – Watehouse	20,0	57 9	0,07	Within zone
19.	BU Dimitrovgrad – Auto Mechanical Workshop	20,0	07,0 54.4	0,07	Within zone
20.	BU Dimitrovgrad – Locksmith workshop	20,3	54,1	0,09	Within zone
21.	ВО Dimitrovgrad – Опісе референта продаје	25,7	58,3	0,07	Within zone
22.	BU Dimitrovgrad – Cashier	26,1	58,6	0,08	vvitnin zone
23.	BU Babusnica – Office No.12 – Office of senior associate	24,2	63,3	0,07	Within zone
	for electric power unit maintenance	,	,	,	
24.	BU Babuśnica – Cashier	24,0	64,0	0,09	Within zone
25.	BU Babuśnica – Room for electric fitter	23,4	68,6	0,08	Within zone
26.	BU Babušnica – Office of warehouse clerk	23,1	69,7	0,08	Within zone
27.	BU Babušnica – Auto Mechanical Workshop	23,4	63,8	0,08	Within zone
28.	BU Babušnica – Locksmith workshop	22,4	72,3	0,08	Within zone
29.	BU Babušnica – Counter hall	24,5	59,3	0,07	Within zone
30	BU Bela Palanka – Office of electric power units'	25.8	53.8	0.09	Within zone
	maintenance officer	20,0	00,0	0,00	20110
31.	BU Bela Palanka – Cashier	25,7	59,6	0,09	Within zone
32.	BU Bela Palanka – Room for electric fitter	24,8	62,4	0,10	Within zone
33.	BU Bela Palanka – Auto Mechanical Workshop	24,1	64,1	0,11	Within zone
34.	BU Bela Palanka – Locksmith workshop	24,3	62,5	0,09	Within zone
35.	BU Bela Palanka – Warehouse	24,4	64,0	0,10	Within zone
36.	BU Bela Palanka – Counter hall	25,4	54,7	0,11	Within zone
Technic	al services department Vranje				
1.	Marička nn, Auto Mechanic Workshop	22,1	47,1	0,10	Within zone
2.	Locksmith workshop	21,7	48,2	0,06	Within zone
3.	Warehouse	21,7	48,4	0,06	Within zone
4.	Meeting room	22,0	49,1	0,10	Within zone
5.	Warehouse	26,3	55,9	0,08	Within zone
6.	Archival depot	20,05	59,9	0,09	Within zone
7.	Preševo ,Branch manager's office	24,8	39,4	0,13	Within zone
8.	Preševo, Billing counter	26,1	40,0	0,09	Within zone
9.	Bujanovac, Billing counter	26,3	45,8	0,19	Within zone
10.	Bujanovac, Engineering office	27,3	37,0	0,10	Within zone
11.	Trgovište.Office	27,3	45,7	0,07	Within zone
12.	Vranjska Banja, Billing counter	27.2	37.0	0.09	Within zone
13.	Vranie. Dispatch center	23.6	47.6	0.08	Within zone
14	Vranie. Archive	24.3	41.9	0.07	Within zone
15	Vranie, Accounting	21.8	49.3	0.09	Within zone
16	Vranje, Hall 3rd floor	22.8	49.6	0.088	Within zone
17	Vranje, Billing counter	23.7	45.6	0.08	Within zone
18	Vranje, Office of hilling department No 1	23.6	40,0 47 N	0.00	Within zone
10.	Vranje, Office of billing department No.2	20,0	<u>4</u> 2 २	0.07	Within zone
20		27,3	<u>43</u> 5	0.08	Within zone
20.	Office of trade union's pesident	27,1	<u>4</u> 3,5	0,00	Within zone
<u></u> <u> </u>		20,1	+ 0,∠	0,03	



22.	Vladičin Han, Billing counter	23,1	55,5	0,07	Within zone
23.	Vladičin Han, Branch manager's office	22,6	56,6	0,07	Within zone

Monitoring of chemical hazards' parameters for summer period 2018 is given in Table 158. In the offices not included in the table, the stated chemical hazards do not represent the polluter.

						Table 158		
TECHI	NICAL CENTER NIŠ							
Chemi	cal hazards – summer period 2018							
Techn	ical services department Pirot							
S.N.	Measurement point	Chemical hazards type	Measured concentration	Exposition (h)	MDK	Concentra tion exceedanc e		
1.	Auto Mechanical Workshop (Department HQ)		Chemical hazar	ds are not detected	d			
2.	Car wash (Department HQ)		Chemical hazar	ds are not detecte	d			
3.	Locksmith workshop (Department HQ)	mineral dust with less than 1% SiO ₂	0,24	8	15	Meets the limit		
4.	"Nova Lokacija" Gnjilan - Oil and Iubricants warehouse	Chemical hazards are not detected						
5.	"Nova Lokacija" Gnjilan - Warehouse for temporary storage of waste		Chemical hazar	ds are not detected	d			
6.	BU Dimitrovgrad - Auto Mechanical Workshop		Chemical hazar	ds are not detected	d			
7.	BU Dimitrovgrad, Locksmith workshop	mineral dust with less than 1% SiO ₂	0,09	8	15	Meets the limit		
8.	BU Babušnica - Auto Mechanical Workshop		Chemical hazar	ds are not detected	d			
9.	BU Babušnica, Locksmith workshop	mineral dust with less than 1% SiO ₂	0,08	8	15	Meets the limit		
10.	BU Bela Palanka - Auto Mechanical Workshop	Chemical hazards are not detected						
11.	BU Bela Palanka - Locksmith workshop	mineral dust with less than 1% SiO ₂	0,12	8		15		

Monitoring of illumination in winter and summer period 2018 in TC Niš is presented in Tables 159 and 160.

TECHNICAL CENTER NIŠ					
Illumination for 2018 – winter period					
Technical services department Niš					
S.N.	Measurement point	Monitoring			Note
		Illumination	Illumination (Ix)		Illumination
			Measured	Permitted	munimation
1.	Branch Gadžin Han – Branch manager's office	combined	516	150-300	Permitted
2.	Branch Gadžin Han – Cashier	combined	287	150-300	Permitted
3.	Branch Niška Banja – Clerks' office	combined	159	150-300	Permitted
4.	Branch Niška Banja – Cashier	combined	272	150-300	Permitted
5.	Unit Aleksinac – Administrative building – Manager's office	combined	212	150-300	Permitted
6.	Unit Aleksinac – Administrative building – Cashier	combined	165	150-300	Permitted
7.	Unit Aleksinac – Administrative building – Office for market support	combined	372	150-300	Permitted
8.	Unit Aleksinac – Dispatchers' office	combined	155	150-300	Permitted
9.	Unit Aleksinac – Auto Mechanical Workshop	combined	274	80-150	Permitted
10.	Unit Aleksinac – Warehouse	combined	156	80-150	Permitted
11.	Unit Aleksinac – Office of warehouse clerk	combined	164	150-300	Permitted
12.	Unit Aleksinac – Office of rolling stock	combined	329	150-300	Permitted
13.	Branch Gornja Toponica – Clerks' office	combined	306	150-300	Permitted
14.	Branch Gornja Toponica – Branch manager's office	combined	155	150-300	Permitted
15.	Branch Matejevac – Branch manager's office	combined	161	150-300	Permitted


16.	Branch Matejevac – Cashier	combined	224	150-300	Permitted
17.	Branch Doljevac - Branch manager's office	combined	785	150-300	Permitted
18.	Branch Doljevac – Cashier	combined	555	150-300	Permitted
19.	Branch Doljevac – Clerks' office	combined	1100	150-300	Permitted

TECHNICAL CENTER NIŠ Illumination за 2018. годину – summer period Technical services department Niš

I COIIII			Note			
S N	Measurement noint		Illumino	tion (ly)	NULE	
J .N.	measurement point	Illumination	Monourod	Dormitted	Illumination	
1	Pranch Cadžin Han - Pranch managar's office	combined	A22	150 300	Dormittad	
ו. כ	Branch Gadžin Han – Gashior	combined	422	150-300	Permitted	
<u>2</u> .	Drahoh Niška Panja – Clarka' office	combined	210	150-300	Permitted	
٦. ١	Branch Niška Banja – Clerks Olice	combined	310	150-300	Permitted	
4.	Linit Alekainaa Administrativa huilding Managar'a office	combined	193	150-300	Permitted	
5. 6	Unit Aleksinac – Administrative building – Manager's Unice	combined	403	150-300	Permitted	
0.	Unit Aleksinac – Administrative building – Cashiel	combined	722	150-300	Permitted	
7. Q	Unit Aleksinac – Administrative building – Onice for market support	combined	977	150-300	Permitted	
0.	Unit Aleksinac – Dispatchels Onice	combined	356	80 150	Permitted	
9. 10	Unit Aleksinac – Auto Mechanical Workshop	combined	100	80 150	Permitted	
10.	Unit Aleksinac – Walenouse	combined	190	80-150	Permitted	
11.	Dranah Carria Tananiaa Caabiar	combined	400	150 200	Permitted	
12.	Branch Gornia Toponica – Cashiel	combined	291	150-300	Permitted	
13.	Branch Mataiavaa - Branch managar'a office	combined	270	150-300	Permitted	
14.	Branch Matejevac – Branch manager's onice	combined	200	150-300	Permitted	
15.	Branch Matejevac – Cashier	combined	030 765	150-300	Permitted	
10.	Branch Doljevac - Branch manager's office	combined	765	150-300	Permitted	
17.	Branch Doljevac – Cashier	combined	680	150-300	Permitted	
18. Taabat	Branch Doljevac – Room for electric fitter	combined	1031	150-300	Permitted	
Tecnn			407	450.000	De mee itte el	
1.		combined	467	150-300	Permitted	
2.		combined	585	150-300	Permitted	
3.	Emergency service room	combined	273	80-150	Permitted	
4.		combined	3210	80-150	Permitted	
5.		combined	380	150-300	Permitted	
6.	Room for electric fitter	combined	1502	80-150	Permitted	
1.		combined	411	80-150	Permitted	
<u>8</u> .	Car wash	combined	1507	80-150	Permitted	
9.		combined	395	150-300	Permitted	
10.		combined	633	80-150	Permitted	
11.	"Nova Lokacija" Gnjilan – Counter nali	combined	656	80-150	Permitted	
12.	"Nova Lokacija" Gnjilan – Office of warehouse clerk	combined	413	150-300	Permitted	
13.	"Nova Lokacija" Gnjilan – Warehouse of goods	combined	1/5	80-150	Permitted	
14.	"Nova Lokacija" Gnjilan – Oil and lubricants warehouse	combined	615	80-150	Permitted	
15.	"Nova Lokacija" Gnjilan – Warehouse for temporary storage of waste	combined	430	80-150	Permitted	
16.	BU Dimitrovgrad – Counter hall	combined	277	150-300	Permitted	
1/.	BU Dimitrovgrad – Room for electric fitter	combined	196	80-150	Permitted	
18.	BU Dimitrovgrad – Warehouse	combined	193	150-300	Permitted	
19.	BU Dimitrovgrad – Auto Mechanical Workshop	combined	477	80-150	Permitted	
20.	BU Dimitrovgrad – Locksmith workshop	combined	433	80-150	Permitted	
21.	BU Dimitrovgrad – Office sale clerk	combined	427	150-300	Permitted	
22.	BU Dimitrovgrad – Cashier	combined	195	150-300	Permitted	
23.	BU Babushica – Ottice No.12 – Ottice of senior associate for electric power unit maintenance	combined	284	150-300	Permitted	
<u>2</u> 4.	BU Babušnica – Cashier	combined	210	150-300	Permitted	
25.	BU Babušnica – Room for electric fitter	combined	211	80-150	Permitted	
26.	BU Babušnica – Office of warehouse clerk	combined	485	150-300	Permitted	
27.	BU Babušnica – Auto Mechanical Workshop	combined	382	80-150	Permitted	
28.	BU Babušnica – Locksmith workshop	combined	175	80-150	Permitted	



29.	BU Babušnica – Counter hall	combined	380	80-150	Permitted
30.	BU Bela Palanka – Office of electric power units' maintenance officer	combined	475	150-300	Permitted
31.	BU Bela Palanka – Cashier	combined	278	150-300	Permitted
32.	BU Bela Palanka – Room for electric fitter	combined	156	80-150	Permitted
33.	BU Bela Palanka – Auto Mechanical Workshop	combined	195	80-150	Permitted
34.	BU Bela Palanka – Locksmith workshop	combined	188	80-150	Permitted
35.	BU Bela Palanka – Warehouse	combined	226	80-150	Permitted
36.	BU Bela Palanka – Counter hall	combined	298	80-150	Permitted

13.3.2. Occupational Safety

Employee training

Training of employees is presented in the Table 161.

Table 161 **TECHNICAL CENTER NIŠ** Training in 2018 Number of For training Trained Technical services department/Facility employees % No. No. % Technical services department Niš 96,36 159 159 100,00 Safe work training 165 Training for newly employed and non-qualified workers 0 0.00 0 0.00 Safe work training of employees with Temporary 35 21,21 35 100.00 **Employment Contract Technical services department Leskovac** 100,00 Safe work training 93 61,59 93 151 Training for newly employed and non-qualified workers 1 0,66 1 100,00 Safe work training of employees with Temporary 18 11,92 18 100,00 **Employment Contract** Technical services department Zaječar Safe work training 163 163 100.00 76,17 214 Training for newly employed and non-gualified workers 0 0,00 0.00 0 Safe work training of employees with Temporary **Employment Contract** 11 5,14 11 100.00 **Technical services department Vranje** 100,00 61.26 68 Safe work training 68 Safe work training of employees with Temporary 111 Employment Contract 4 3,60 4 100,00 Training for newly employed and non-qualified workers 1 100,00 1 100,00 Technical services department Pirot Periodical check of competences for health and safety at 100.00 47 60,26 47 work 78 1 1 100,00 Safe work training-прелазак на друго радно место 1,28 Safe work training of employees with Temporary 7 7 8,97 100,00 **Employment Contract Technical services department Prokuplje** 76,92 100,00 Safe work training 60 60 78 Training for newly employed and non-qualified workers 3,85 100.00 3 3 Safe work training of employees with Temporary 7 7 8,97 100.00 **Employment Contract** Headquarters 63,29 100,00 Safe work training 50 50 79 Safe work training of employees with Temporary 0 0 0 0,00 Employment Contract



Training for newly employed and non-qualified workers		0	0,00	0	0,00
TOTAL: TECHNICAL CENTER NIŠ	876	728	83,10	728	100,00

Additional trainings not related to permanent staff in TC Niš, which were held in 2018 are shown in Table 162.

TECHNICAL CENTED NIČ				Table
Additional trainings not related to permanent staff in TC Niš, where the test of test	nich were held ir	n 2018		
	For training		Trained	
Branch/Unit	No.	%	No.	%
Technical services department Pirot		<u>.</u>		
Periodical check of competences for health and safety at work запослених преко Агенције	30	100,00	30	100,00
Theoretical and practical training of employees through the Agency for Health and Safety at work during climbing and work on the pole (work on the height)	14	100,00	14	100,00
Theoretical and practical training of employees through the Agency for Health and Safety at work with a hydraulic mechanical hand lever hoist (driver and operator)	1	100,00	1	100,00
Getting to know the contractor of work with dangers and hazards, measures for health and safety work and rules of conduct	86	100,00	86	100,00
Getting to know students and pupils in practical teaching with measures for health and safety work and rules of conduct	1	100,00	1	100,00
Getting to know visitors and service providers with measures for health and safety work and rules of conduct	24	100,00	24	100,00
Theoretical and practical training of employees for health and safety at work on works of electric fitters on duty – power plant operator	4	100,00	4	100,00
Training for Health and safety at work – Norcev	23	100,00	23	100,00
Training for fire protection – Norcev	23	100,00	23	100,00
Technical services department Niš	I			
Safe work training of engaged persons	338	100.00	338	100.00
Safe work training of engaged persons (PE TPP "Kosovo" Obilić)	26	100,00	26	100,00
Safe work training of engaged persons (PE "Elektrokosmet" Priština)	11	100,00	11	100,00
Safe work training of engaged persons (PE OCM "Kosovo" Obilić)	80	100,00	80	100,00
Technical services department Prokuplje				
Safe work training of engaged persons	42	100,00	42	100,00
Headquarters				
Safe work training of engaged persons	31	100,00	31	100,00

• Work injuries

Number of work injuries in 2018 is presented in Table 163.



Work injuries in 2018								
Technical convises department/Fecility	Number of		Injuries – number of employees ratio					
rechnical services department/raciity	employees	Light	Serious	Fatalities	Total	%		
Leskovac	151	0	1	0	1	0,66		
Pirot	78	3	0	0	3	3,85		
Zaječar	214	6	2	0	8	3,74		
Vranje	111	0	0	0	0	0,00		
Prokuplje	78	2	0	0	2	2,56		
Niš	165	1	0	0	1	0,61		
Headquarters TC Niš	79	0	0	0	0	0,00		
TOTAL: TECHNICAL CENTER NIŠ	876	12	3	0	15	1,71		

13.3.3. Health

Periodic medical examinations of employees, presented in Table 164 are carried out regularly for all newly recruited workers and employees working on jobs with special working conditions.

										Tab	le 164
TECHNICAL CENTER NIŠ											
Working capacity in 2018											
	S	Ре	riodical exa	minati	on		Ca	apability	/ for work		
Technical services department/Facility	lo. of ployee	Referred to examination		Examined		Capable		Limited capability		Incapable	
	те Ш	No.	%	No.	%	No.	%	No.	%	No.	%
Leskovac	151	101	66,88	101	100,00	94	93,07	6	5,94	1	0,99
Pirot	78	56	71,79	55	98,21	45	81,82	10	18,18	0	0,00
Zaječar	214	146	68,22	144	98,63	124	86,11	11	7,64	9	6,25
Vranje	111	69	62,16	69	100,00	61	88,41	7	10,14	1	1,45
Prokuplje	78	59	75,64	58	98,31	47	81,03	8	13,79	3	5,17
Niš	165	85	51,52	85	100,00	84	98,82	1	1,18	0	0,00
Headquarters TC Niš	79	1	1,27	1	100,00	1	100,00	0	0,00	0	0,00
TOTAL: TECHNICAL CENTER NIŠ	876	517	58,90	513	99,23	456	88,89	43	8,38	14	2,73

13.4. Public Complaints

There were no public complaints related to environmental protection in 2018.



14. PE EPS HQ

14.1. Working Environment Monitoring, Occupational Health and Safety

The 2018 Occupational Safety and Health Reports include the following elements:

Working environment monitoring

-Working environment noise measurements

Safety

- Employees training
- Work injuries
- Health

14.1.1. Working Environment Monitoring

Working environment noise measurements

In 2018, Working environment noise measurements were not performed.

14.1.2. Occupational Safety

Employees training

Specific Occupational Health and Safety training of employees is carried out according to the Training Programme, theoretically and practically. The following trainings were carried out in 2018:

- Health and Safety training of

Dangers and hazards and/or risk factors are addressed in conformity with the Health and Safety Rules and Risk Assessment Act

Work injuries

Table 165 shows the 2018 work injuries data.

Table 165

PE EPS HQ								
Work injuries in 2018								
Organisational unit	Number of employees	Injuries – number of employees ratio						
	······································	Light	Serious	Fatalities	TOTAL	%		
PE EPS HQ	775	7	3	0	10	1,29		
TOTAL: PE EPS HQ	775	7	3	0	10	1,29		

14.1.3. Health

There are no employees in PE EPS HQ working in high-risk workplaces. Periodic medical examinations of employees are shown in Table 166.



PE EPS HQ											
Work injuries in 2018											
			Periodical e	examinat	tion	Capability for work					
Organisational unit	Number of employees	Reff exan	Reffered to Examined		Capable		Limited capability		Incapable		
		број	%	број	%	број	%	број	%	број	%
PE EPS HQ	775	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
TOTAL: PE EPS HQ	775	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00

14.2. Public Complaints

Public complaints in 2018. are shown in Table 167.

Table 167

PE EPS HQ Dublic complaints in 2019			
Organisational unit	Complaint (number and date)/complainant	Subject of complaint	Undertaken measures
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-542351/2-17 27.12.2017. Zvezdan Kalmar "CEKOR"	Comments on the Summary of PE EPS Action Plan Draft for the Environmental protection for the period 2016 -2025	Response sent on January 30, 2018
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-542351/2-17 27.12.2017. Marija Nikolić OCD "Reakcija zelene mreže"	Comments on the Summary of PE EPS Action Plan Draft for the Environmental protection for the period 2016 -2025	Response sent on January 30, 2018
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-542351/2-17 27.12.2017. Martin Raspor for "ORCA"	Comments on the Summary of PE EPS Action Plan Draft for the Environmental protection for the period 2016 -2025	Response sent on January 30, 2018
Service for internal regulations and relations with regulatory bodies and stakeholders	22.05.2018. Vesna Terzić For NGO "Tihi Lug"	The state of the environment in the part of the settlement of Veliki Crijeni, as well as the cross- section of the previous activities of the PE EPS regarding the obligations assumed by the Spatial Plan of the exploitation area of the Kolubara Lignite basin.	Complainant is informed in due time of the allegations of the request.
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01.262635/1-18 30.05.2018. Radisav Jovanović for association "Za zdravije sutra"	The state of the environment in the part of the settlement of Veliki Crijeni, as well as the cross- section of the previous activities of the PE EPS regarding the obligations assumed by the Spatial Plan of the exploitation area of the Kolubara Lignite basin.	Complainant is informed in due time of the allegations of the request.
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01.129234/3-18 25.05.2018. Milojko Obradović from Veliki Crljeni	The road extention request on CP No. 2090 CM Veliki Crljeni.	Complainant with the competent services of the TENT Branch will
Service for internal regulations and relations with regulatory bodies and stakeholders	09.11.2018. Martin McKee EBRD	The EBRD received an appeal from Zeljko Stojkovic from "Srpski centar za Ekologiju" with an objection to the activities of EPS on "Field D", by which, according to Ž. Stojković, two chuch complexes are endagered.	Response submitted to EBRD by e-mail on November 16, 2018.



15. EPS SNABDEVANJE BRANCH

15.1. Working Environment Monitoring, Occupational Health and Safety

The 2018 Occupational Safety and Health Reports include the following elements:

Working environment monitoring

-Working environment noise measurements

Safety

- Employees training
- Work injuries
- Health

15.1.1. Working Environment Monitoring

Working environment noise measurements

In 2018, Working environment noise measurements were not performed.

15.1.2. Occupational Safety

Training

Specific Occupational Health and Safety training of employees is carried out according to the Training Programme, theoretically and practically. The following trainings were carried out in 2018:

Health and Safety Training of

employees.....75

Dangers and hazards and/or risk factors are addressed in conformity with the Health and Safety Rules and Risk Assessment Act

Work injuries

Table 168 shows the 2018 work injuries data.

Table 168

EPS SNABDEVANJE BRANCH								
Work injuries in 2018								
Organisational unit Number of employees Injuries – number of employees ratio								
	······	Light	Serious	Fatalities	TOTAL	%		
EPS Snabdevanje	1.143	1	3	0	4	0,35		
TOTAL: EPS SNABDEVANJE	1.143	1	3	0	4	0,35		

15.1.3. Health

There are no employees in EPS Snabdevanje Branch working in high-risk workplaces. Periodic medical examinations of employees are shown in Table 169.



EPS SNABDEVANJE BRANCH

working capacity in 20	10											
			Periodical e	examinat	tion	Capability for work						
Organisational unit	Number of employees	Refe exan	erred to nination	Examined		Capable		Limited capability		Incapable		
		No.	%	No.	%	No.	%	No.	%	No.	%	
EPS Snabdevanje	1.143	20	1,75	20	100,00	20	100,00	0	0,00	0	0,00	
TOTAL: EPS SNABDEVANJE BRANCH	1.143	20	1,75	20	100,00	20	100,00	0	0,00	0	0,00	

15.2. Public Complaints

There were no public complaints related to environmental protection in 2018.



II DISTRIBUTION SYSTEM OPERATOR "EPS DISTRIBUCIJA"

Pursuant to the status change as of 1st July 2015, made in accordance with the Reorganization Plan of Public Enterprize Electric Power Industry of Serbia, Belgrade, approved by the Governmet of Republic of Serbia dated 27th November 2014, Distribution System Operator "EPS Distribucija" doo Beograd was formed through the aquisition of the companies for electricity distribution, as follows: the company for electricity distribution "Elektrovojvodina" doo, Novi Sad, the company for electricity distribution "Elektrosrbija" doo Kraljevo, the company for electricity distribution "Centar" doo Kragujevac and the company for electricity distribution "Jugoistok" doo Nis, the company for electricity distribution "Elektrodistribucija Beograd" doo Beograd.

DSO "EPS Distribution" is comprised of the following:

- DISTRIBUTION AREA BEOGRAD
- DISTRIBUTION AREA NOVI SAD
- DISTRIBUTION AREA KRALJEVO
- DISTRIBUTION AREA KRAGUJEVAC
- DISTRIBUTION AREA NIŠ

1. DISTRIBUTION AREA BEOGRAD

Table 170 provides the structure of all facilities within the system of DA Beograd.

DISTRIBU	DISTRIBUTION AREA BEOGRAD											
Facilities a	nd syst	ems in 2	2018									
		E	ectricity	distrib	ution su	bstatio	ns			Distribution r	network in km	I
Branch	110/10 KV	110/20 KV	110/35 KV	110/x/z KV	35/10 KV	20/0.4 KV	10/0.4 KV	TOTAL:	Voltage level	Overhead	Cable	Total length
							•		110 kV	0,000	0,000	0,000
									35 kV	0,000	0,000	0,000
		ontar							20 kV	0,000	0,000	0,000
	(AD - 0	cintai							10 kV	851,800	2.277,000	3.128,800
									1,0 kV	0,000	0,000	0,000
		1					1		0,4 kV	3.864,500	4.299,000	8.163,500
TOTAL	24	0	1	0	69	0	1.354	1.448	TOTAL:	4.716,300	6.576,000	11.292,300
									110 kV	0,000	0,000	0,000
									35 kV	0,000	0,000	0,000
ED Banov	Brdo								20 kV	0,000	0,000	0,000
	Diao								10 kV	366,000	840,000	1.206,000
									1.0 kV	0,000	0,000	0,000
							1		0.4 kV	1.187,730	1.657,260	2.844,990
TOTAL	0	0	0	0	0	0	1.345	1.345	TOTAL:	1.553,730	2.497,260	4.050,990
									110 kV	0,000	0,000	0,000
									35 kV	0,000	0,000	0,000
ED Zomun									20 kV	0,000	0,000	0,000
									10 kV	105,400	675,000	780,400
									1.0 kV	0,000	0,000	0,000
									0.4 kV	1.354,000	1.073,000	2.427,000
TOTAL	0	0	0	0	0	0	1.164	1.164	TOTAL:	1.459,400	1.748,000	3.207,000
		•					•		110 kV	0,000	0,000	0,000
ED Krnjača									35 kV	0,000	0,000	0,000



									20 kV	0,000	0,000	0,000
									10 kV	212,000	126,000	338,000
									1.0 kV	0,000	0,000	0,000
		-							0.4 kV	451,000	197,000	648,000
TOTAL	0	0	0	0	0	0	286	286	TOTAL:	663,000	323,000	986,000
									110 kV	0,000	0,000	0,000
									35 kV	14,752	7,006	21,758
ED Miadan	01/20								20 kV	0,000	0,000	0,000
	Ovac								10 kV	537,560	91,655	629,215
									1,0 kV	0,000	0,000	0,000
									0,4 kV	1.800,860	86,400	1.887,260
TOTAL	0	0	0	0	0	0	590	590	TOTAL:	2.353,172	185,061	2.538,233
									110 kV	0,000	0,000	0,000
									35 kV	0,000	0,000	0,000
									20 kV	0,000	0,000	0,000
ED Obreno	ovac								10 kV	576,600	102,160	678,760
									1.0 kV	0,000	0,000	0,000
									0.4 kV	1.290,890	153,110	1.444,000
TOTAL	0	0	0	0	0	0	493	493	TOTAL:	1.867,490	255,270	2.122,760
									110 kV	0,000	0,000	0,000
									35 kV	14,752	7,006	21,758
	т								20 kV	0,000	0,000	0,000
	1	UTAL. D	IS I KIBU			JINAD			10 kV	2.649,360	4.111,815	6.761,175
									1.0 kV	0,000	0,000	0,000
									0.4 kV	9.948,980	7.465,700	17.414,750
TOTAL	24	0	1	0	69	0	5.232	5.326	TOTAL:	12.613,092	11.584,591	24.197,683

1.1. Overview and Status of Permits

In 2018, there were no overview and status of permits, licences and other necessary approvals in DA Beograd. New applications for permits were not done.

1.2. Monitoring and Environmental Impact

EPS Distribution DA Beograd affects the environment by the following factors:

- Electromagnetic fields
- Environmental noise
- Waste
- Surface and groundwater quality
- Soil quality

1.2.1. Electromagnetic Fields

During 2018, measurement of electric and magnetic fields was performed for sources of non-ionizing radiation of substations:

- SS 110/10 kV Beograd 12 (FOB), Jurija Gagarina street, Novi Beograd (Branch Zemun), Electrical Engineering Institute Nikola Tesla, Laboratory for testing and calibration Belgrade (Report No. 317454-L);
- SS 110/35 kV, Beograd 10, Mislođinska street (Branch Obrenovac), Electrical Engineering Institute Nikola Tesla, Laboratory for testing and calibration Belgrade (Report No. 317591-L, from 24.1.2018.);
- SS 110/10 kV Beograd 38, Đorđa Ognjanvića 20, Žarkovo (Branch Banovo Brdo), Electrical Engineering Institute Nikola Tesla, Laboratory for testing and calibration Belgrade (Report No. 317593-L from 24.1.2018.);



- SS 110/35 kV Beograd 11, Vukasovićeva 75, Miljakovac (Branch Banovo Brdo) Electrical Engineering Institute Nikola Tesla, Laboratory for testing and calibration Belgrade (Report No. 317594-L from 24.1.2018);
- SS 110/10 kV Beograd 16 (Filmski Grad) Patrijarha Joanikija 2, Rakovica (Branch Banovo Brdo) Electrical Engineering Institute Nikola Tesla, Laboratory for testing and calibration Belgrade (Report No. 317592-L);
- SS 110/10 kV Beograd 36 "Obilić" Tome Maksimovića nn, (Branch Beograd centar) Electrical Engineering Institute Nikola Tesla, Laboratory for testing and calibration Belgrade (Report No. 317410-L);
- SS 110/10 kV Beograd 28 "Bogoslovija" Mije Kovačevića nn, (Branch Beograd centar) Electrical Engineering Institute Nikola Tesla, Laboratory for testing and calibration Belgrade (Report No. 318369-L from 7.8.2018.);
- SS 110/35 kV Beograd 7, Krnjača, Grge Andrijanovića 1, (Branch Krnjača) Electrical Engineering Institute Nikola Tesla, Laboratory for testing and calibration Belgrade (Report No. 318367-L from 7.8.2018);
- SS 110/10 kV Beograd 19 Mirjevo, Vitezova Kradorđeve zvezde street, (Branch Beograd centar) Electrical Engineering Institute Nikola Tesla, Laboratory for testing and calibration Belgrade (Report No. 318384-L from 7.8.2018);

1.2.2. Environmental Noise

Measurements were not carried out in 2018.

1.2.3. Waste

Waste production in 2018 is presented in Table 171, according to the Serbian waste management regulations.



DIST	DISTRIBUTION AREA BEOGRAD											
Wast	e in 2018											
						Brai	nch			TOTAL	NOTE	
S.N.	Official Nomenclature of the Rulebook on categories, testing and classification of waste "Official Gazette RS", No. 56/10 from 10.08.2010.	INDEX NO.	UNIT	ED BEOGRAD - CENTAR	ED BANOVO BRDO	ed Zemun	ED KRNJAČA	ED MLADENOVAC	ED OBRENOVAC	DA BEOGRAD		
							AMOUNTS	5				
1.	Other emulsions	13 08 02*	t	76,140	207,740	84,580	36,740	39,300	0,000	444,500	Oiled water from oil pits	
2.	Lead-acid batteries	16 06 01*	t	9,502	6,740	3,480	0,000	0,000	1,485	21,207	Waste batteries	
3.	Soil and stone containing hazardous substances	17 05 03*	t	0,000	538,580	19,220	0,000	0,000	0,000	557,800	Contaminated soil and gravel from the location of the transformer oil pouring	
4.	Wood containing dangerous substances	20 01 37*	t	0,000	0,000	64,470	0,000	32,840	0,000	97,310	Impregnated wooden poles	
5.	Discarded equipment other than specified in 16 02 09 to 16 02 13	16 02 14	t	0,000	0,000	20,000	0,000	0,000	0,000	20,000	Old transformers	
6.	Concrete	17 01 01	t	0,000	0,000	180,500	0,000	0,000	0,000	180,500	Waste concrete poles	
7.	Copper, bronze, brass	17 04 01	t	0,000	0,000	1,500	0,000	0,000	0,000	1,500	Waste copper cables, copper waste and scrap, rail, copper wire, waste brass - worn tools	
8.	Aluminium	17 04 02	t	0,000	0,000	9,700	0,000	0,000	0,000	9,700	Aluminum waste, worn cables, broken or burnt cables, parts of worn-out equipment	
9.	Iron and steel	17 04 05	t	0,000	0,000	21,000	0,000	0,000	0,000	21,000	Miscellaneous old iron that occurs during overhaul or worn-out equipment, old Fe consoles with insulators, metal lattice pillars, waste galvanized sheets, etc.	
10.	Insulation materials other than specified in 17 06 01 and 17 06 03	17 06 04	t	0,000	0,000	3,20	0,000	0,000	0,000	3,200	Old insulators	
11.	Mixed metals	17 04 07	t	0,000	0,000	30,00	0,000	0,000	0,000	30,000	Aluminum conductors, steel reinforced	



1.2.4. Surface, Ground Waters and Soil Monitoring

Monitoring of surface and groundwater, as well as monitoring of soil in 2018. was not performed.

1.3. Working Environment Monitoring, Occupational Health and Safety

The 2018 Occupational Safety and Health Reports include the following elements:

Working environment monitoring

- Working environment noise measurements
- Electromagnetic fields in the working environment
- Working environment parameters
- Safety
 - Employees training
 - Work injuries
- Health

1.3.1. Working Environment Monitoring

Working environment noise measurements

Working environment noise measurements in 2018 were carried out in two sites:

- Belgrade, Administrative building, Blok 32
- Zemun, TS 10/04 kV

Electromagnetic fields in the working environment

During 2018, Measurements of the level of electrical and magnetic field in the working environment were carried out in five sites:

- Beograd centar (TS 110/10 kV two times and TS 35/10 kV)
- Kranjača
- Obrenovac

Working environment parameters

Illumination testing is satisfactory according to the expert finding №. 43087/916-2018 of the Institute for security and safety at work.

Chemical hazards testing is satisfactory according to the expert finding №. 43087/916-2018 of the Institute for security and safety at work.

1.3.2. Occupational Safety

Training

It is carried out in accordance with the Occupational Safety Qualification and Knowledge Improvement Programme.

Training of employees is presented in the Table 172 also including the training of newly recruited workers, as well as knowledge testing of workers in the aforementioned fields.



DISTRIBUTION AREA BEOGRAD

Training in 2018					
Branch	Number of	For tr	aining	Tra	ined
Blanch	employees	No.	%	No.	%
Beograd- centar					
Knowledge testing	751	275	36,62	275	100,00
Newly recruited workers		15	2,00	15	100,00
ED BANOVO BRDO	56	10	20.14	10	100.00
Knowledge testing	50	10	JZ, 14	10	100,00
ED ZEMUN	12	15	35 71	15	100.00
Knowledge testing	42	15	55,71	15	100,00
ED KRNJAČA	24	٥	37 50	٥	100.00
Knowledge testing	24	9	57,50	5	100,00
ED MLADENOVAC	19	5	27 78	5	100.00
Knowledge testing	10	5	21,10	5	100,00
ED OBRENOVAC	19	6	33.33	6	100.00
Knowledge testing	10	0	55,55	0	100,00
TOTAL: DISTRIBUTION AREA BEOGRAD	909	343	37,73	343	100,00

Work injuries

The status of injuries for 2018 is presented in Table 173.

Table 173

DISTRIBUTION AREA BEOGRAD										
Work injuries in 2018										
Prench	Number of		Injuries – nu	umber of emp	oloyees ratio					
Dialicii	employees	Light	Serious	Fatalities	TOTAL	%				
ED BEOGRAD CENTAR	751	7	1	0	8	1,06				
ED BANOVO BRDO	56	0	0	0	0	0,00				
ED ZEMUN	42	0	0	0	0	0,00				
ED KRNJAČA	24	0	0	0	0	0,00				
ED MLADENOVAC	18	0	0	0	0	0,00				
ED OBRENOVAC	18	0	0	0	0	0,00				
TOTAL: DISTRIBUTION AREA BEOGRAD	909	7	1	0	8	0,88				

1.3.3. Health

Periodic medical examinations of employees, presented in Table 174 are carried out regularly for all newly recruited workers and employees working on jobs with special working conditions.

										Tab	le 174
DISTRIBUTION AREA BEOGRAD											
Working capacity in 2018											
	ه ۲	Pe	eriodical e	examina	tion		Ca	pability	/ for wor	k	
Branch	nber o	Refe exam	rred to ination	Exa	mined	Ca	pable	Limited capability		Incapable	
	Nun emp	No.	%	No.	%	No.	%	No.	%	No.	%
ED BEOGRAD CENTAR	751	273	36,35	273	100,00	257	94,14	16	5,86	0	0,00
ED BANOVO BRDO	56	18	32,14	18	100,00	18	100,00	0	0,00	0	0,00
ED ZEMUN	42	15	35,71	15	100,00	15	100,00	0	0,00	0	0,00
ED KRNJAČA	24	9	37,50	9	100,00	9	100,00	0	0,00	0	0,00



ED MLADENOVAC	18	5	27,78	5	100,00	5	100,00	0	0,00	0	0,00
ED OBRENOVAC	18	6	33,33	6	100,00	6	100,00	0	0,00	0	0,00
TOTAL: DISTRIBUTION AREA BEOGRAD	909	326	35,86	326	100,00	310	95,09	16	4,91	0	0,00

1.4. Public Complaints

Public complaints during 2018 are given in Table 175.

	N AKEA BEUGRAD		
Public compl	aints in 2018		
Branch	complaint (number and date)/	Subject of complaint	Undertaken measures
BEOGRAD CENTAR	Ministry of Environmental protection No.:353-03-01555/2018-07 dated 31.7.2018	 Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/10kV "Beograd 28" Pionir, Mije Kovačevića nn, through engaged legal entity authorized to carry testing of radiation level of existing source of non-ionizing radiation in the environment. Report on performed measuring of radiation level of non-ionizing radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department. 	Orders by Ministry of Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department were conducted
BEOGRAD CENTAR	Ministry of Environmental protection No.:353-03-01554/2018-07 dated 31.7.2018	 Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/10kV "Beograd 19" Karađorđeva nn, Mirjevo through engaged legal entity authorized to carry testing of radiation level of existing source of non-ionizing radiation in the environment. Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department. 	Orders by Ministry of Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department were conducted
KRNJAČA	Ministry of Environmental protection No.:353-03-01651/2018-07 dated 31.7.2018	 Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/35kV "Beograd 7" Grge Andrijaševića 1, Krnjača, through engaged legal Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department. 	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department were conducted.



2. DISTRIBUTION AREA NOVI SAD

Table 176 provides the structure of all facilities within the system of DA Novi Sad.

											Table 176
DISTRIE	BUTION A	REA NOV	I SAD								
Facilitie	s and sys	tems in 20	018								
		Electric	ity distrib	ution sub	stations				Distribution r	network in kn	1
110/10 kV	110/20 kV	110/35 kV	110/x/z kV	35/10 kV	20/0.4 Kv	10/0.4 kV	TOTAL:	Voltage level	Overhead	Cable	Total length
ED SUB	OTICA							110 kV 35 kV 20 kV 10 kV 1.0 kV	0,000 189,530 1.005,980 92,900 0,000	0,000 14,100 424,690 1,580 0,000 302,370	0,000 203,630 1.430,670 94,480 0,000 2,525,230
0	9	2	0	7	1.319	144	1.481	Total:	3.516.270	742,740	4.259,010
ED SOM	IBOR	I	I		I	L	I	110 kV 35 kV 20 kV 10 kV 1.0 kV 0.4 kV	0,000 0,000 1.287,240 0,000 0,000 1.361,780	0,000 0,000 325,560 0,000 0,000 304,280	0,000 0,000 1.612,810 0,000 0,000 1.666,060
0	8	0	0	0	1.106	0	1.114	Total:	2.649,020	629,840	3.278,860
ED ZRE	NJANIN							110 kV 35 kV 20 kV 10 kV 1.0 kV 0.4 kV	0,000 235,240 799,570 88,240 0,000 1.663,090	0,000 25,600 308,250 11,740 0,000 243.15	0,000 260,840 1.107,820 99,980 0,000 1906.24
0	6	2	0	17	920	118	1.063	Total:	2.786,140	588,740	3.374,880
ED NOV	'I SAD							110 kV 35 kV 20 kV 10 kV 1.0 kV 0.4 kV	0,000 162,730 770,800 97,700 0,000 2.407,890	0,000 89,100 771,020 69,060 0,000 1.056,460	0,000 251,830 1.541,820 166,760 0,000 3.464,350
0	9	6	0	19	1.675	159	1.868	Total:	3.439,120	1.985,640	5.424,760
ED SRE	MSKA MI	TROVICA						110 kV 35 kV 20 kV 10 kV 1.0 kV 0.4 kV	0,000 53,330 295,320 5,690 0,000 400,610	0,000 5,270 181,180 0,630 0,000 138,090	0,000 58,600 476,500 6,320 0,000 538,700
0	2	1	0	5	381	13	402	Total:	754,950	325,170	1.080,120
ED RUM	A		1		1	1	1	110 kV 35 kV 20 kV	0,000 0,000 600,710	0,000 0,000 523,930	0,000 0,000 1.124,640



								10 kV	0,000	0,000	0,000
								1.0 kV	0,000	0,000	0,000
								0.4 kV	1.184,810	180,20	1.365,010
0	7	0	0	1	914	0	922	Total:	1.785,520	704,130	2.489,650
								110 kV	0,000	0,000	0,000
								35 kV	226,800	22,860	249,660
	ČEVO							20 kV	829,870	393,300	1.223,170
LUFAN								10 kV	78,700	20,600	99,300
								1.0 kV	0,000	0,000	0,000
								0.4 kV	1.980,150	568,700	2.548,850
0	7	2	0	8	901	196	1.114	Total:	3.115,520	1.005,460	4.120,980
								110 kV	0,000	0,000	0,000
								35 kV	867,630	156,930	1.024,560
	т		STDIBIITI			п		20 kV	5.589,490	2.927,930	8.517,420
	1	UTAL. DI				D		10 kV	363,230	103,610	466,840
								1.0 kV	0,000	0,000	0,000
								0.4 kV	11.226,190	2.793,250	14.019,440
0	48	13	0	57	7.216	630	7.964	Total:	18.046,540	5.981,710	24.028,260

*Note: regarding electricity distribution substations and electricity distribution network length, facilities and cable lines in own property must be taken into consideration. Others not to take into consideration

2.1. Overview and Status of Permits

Overview and status of permits, licenses and other required approvals, as well as applications for permits in 2018, are shown in Table 177.

			Table 177
DISTRIBUTION AREA NOVI SAD			
Overview and status of permits 2018	1	-	
Branch	Obtained approvals and permits (Number and date)	New requests for obtaining new or extending of existing permits	Note
ED SUBOTICA			
Construction of 20 kV CL N. Orahovo – Tornjoš	No.: ROP-BTP-10947- ISAW-2/2017 from 03.01.2018		decision on approval of works
Construction of CSS – 177 in Bačka Topola	No.: ROP-BTP-34222- ISAW-2/2017 from: 26.01.2018		decision on approval of works
Construction of PMTS – 9 Đurđin	No.: ROP-SUB-990- ISAWHA-2/2018 from: 01.02.2018		decision on approval of works
Decision on approval of works 20 kV – Čoka	No.: ROP-COK-12305- ISAWHA-3/2018 from: 19.02.2018		decision on approval of works
Construction of underground 0,4 kV cable line for the facility in Majšanski put in Subotica	No.: ROP-SUB-3078-ISAW- 1/2018 from: 22.02.2018		decision on approval of works
Construction of CSS – 149 CCSS – 149 B. Topola	No.: ROP-BTP-34221- ISAW-2/2018 from: 12.03.2018		decision on approval of works
Construction of CSS – 149 PCSS – 404 Novi Kneževac	No.: ROP-NKN-5865-ISAW- 1/2018 from 22.03.2018		decision on approval of works



Construction of CSS – 149 CCSS – 501 Kanjiža	No.: ROP-KAN-32518- ISAW-2/2018 from 26.03.2018	decision on approval of works
Construction of LV CL from PCSS – 532 in Subotica	No.: ROP-SUB-34223- ISAW-2/2018 from 18.04.2018	decision on approval of works
Decision on approval of works PMTS – 28 Mali Iđoš	No.: ROP-MID-6184-ISAW- 2/2018 from 11.05.2018	decision on approval of works
Construction of LV 0,4 kV CI from WMSS – 336 in Subotica	No.: ROP-SUB-11885- ISAW-1/2018 from 15.05.2018	decision on approval of works
Construction of 20 kV CL from PCSS – 434 in Subotica	No.: ROP-SUB-11881- ISAW-1/2018 from 16.05.2018	decision on approval of works
Construction of connection from PCSS – 323 with double 0,4 kV cable line in Subotica	No.: ROP-SUB-11917- ISAW-1/2018 from 16.05.2018	decision on approval of works
Construction of CTC-9 Đurđin	No.: ROP-SUB-9336- ISAWHA-2/2018 from 18.05.2018	decision on approval of works
Construction of PCSS – 18 ENVIGAS ALFA Martonoš	No.: ROP-KAN-10466- ISAW-2/2018 from 28.5.2018 dated on: 6.6.2018	decision on approval of works
Decision on approval of works Adaptation WMSS – 433 in Subotica	No.: ROP-SUB-15133- ISAW-1/2018 from13.06.2018	decision on approval of works
Construction of LV connecting 0,4 kV cable line for connection of facilities in the JNA street No. 54 in Ada	No.: ROP-ADA-20295- ISAW-1/2018 from 23.07.2018	decision on approval of works
Construction of 20 kV CL Tornjoš – N. Orahovo	No.: ROP-BTP-20289- ISAW-2/2018 from 09.08.2018	decision on approval of works
Construction of PCSS – 104 near Kireška in Subotica	No.: ROP-SUB-23856- ISAWHA-2/2018 from 17.09.2018	decision on approval of works
Construction of PMTS – 8 with 20 and 0,4 kV lines in the settlement Šebešić	No.: ROP-SUB-16108- ISAW-1/2018 from 24.09.2018	decision on approval of works
Construction of 0,4 kV CL Graničar – Gornja Rogatica	No.: ROP-BTP-27399- ISAW-2/2018 from 24.09.2018	decision on approval of works
Construction of 0,4 kV CL Pilak – Gornja Rogatica	No.: ROP-BTP-27401- ISAW-2/2018 from 25.09.2018	decision on approval of works
Construction of LV conection 0,4 kV cable line for connection of facilities in Kireška street in Subotica	No.: ROP-SUB-27883- ISAW-1/2018 from 26.09.2018	decision on approval of works
Construction of LV connection underground 0,4 kV cable line for connection of facilities in Kireška street in Subotica	No.: ROP-SUB-29083- ISAW-1/2018 from 04.10.2018	decision on approval of works
Construction of connection from PCSS – 400 in industrial zone in Bačka Topola "KITE" Logistic center	No.: ROP-BTP-28847- ISAW-1/2018 from 05.10.2018	decision on approval of works
Construction of LV connection 0,4 kV cable line for the facility of radio station in the Industrial zone of Subotica	No.: ROP-SUB-29088- ISAW-1/2018 from 09.10.2018	decision on approval of works
Construction of PMTS – 2 instead of existing WMSS – 2 S. Moravica	No.: ROP-BTP-30778- ISAW-1/2018 from: 22.10.2018	decision on approval of works



No. : ROP-SEN-11294- ISAW-2/201 from: 23.10.2018	decision on approval of works
No.: ROP-BTP-31246- ISAW-1/2018 from: 26.10.2018	decision on approval of works
No.: ROP-KAN-28849- ISAWHA-2/2018 from: 26.10.2018	decision on approval of works
No.: ROP-SUB-32323- ISAW-1/2018 from: 30.10.2018	decision on approval of works
No.: ROP-SUB-32497- ISAW-1/2018 from: 31.10.2018	decision on approval of works
No.: ROP-SUB-33474- ISAW-1/2018 from: 07.11.2018	decision on approval of works
No.: ROP-MID-9340-ISAW- 3/2018 from: 19.11.2018	decision on approval of works
No.: ROP-KAN-35900- ISAWHA-4/2018 from: 29.11.2018	decision on approval of works
No.: ROP-BTP-35243- ISAW-1/2018 from: 03.12.2018	decision on approval of works
No.: ROP-SUB-35063- ISAW-1/2018 from: 03.12.2018	decision on approval of works
No.: ROP-BTP-28848- ISAW-2/2018 from: 05.12.2018	decision on approval of works
No.: ROP-SUB-36359- ISAW-1/2018 from: 12.12.2018	decision on approval of works
No.: ROP-SUB-32496- ISAW-2/2018 from: 14.12.2018	decision on approval of works
No.: ROP-SUB-32839- ISAW-2/2018 from: 14.12.2018	decision on approval of works
No.: ROP-SUB-37421- ISAW-1/2018 from: 21.12.2018	decision on approval of works
No.: ROP-SUB-38154- ISAW-1/2018 from: 28.12.2018	decision on approval of works
ROP-SOM-40251-ISAW- 2/2018 02.02.2018.	Decision pursuant to Article 145
ROP-SOM-33464-ISAW- 2/2018 02.02.2018.	Decision pursuant to Article 145
ROP-SOM-32448-ISAW- 2/2018 19.02.2018.	Decision pursuant to Article 145
ROP-SOM-37750-ISAW- 3/2018 15.03.2018.	Decision pursuant to Article 145
ROP-APA-36517-ISAW- 2/2018 20.03.2018.	Decision pursuant to Article 145
	No.: ROP-SEN-11294- ISAW-2/201 from: 23.10.2018 No.: ROP-BTP-31246- ISAW-1/2018 from: 26.10.2018 No.: ROP-KAN-28849- ISAWHA-2/2018 from: 26.10.2018 No.: ROP-SUB-32323- ISAW-1/2018 from: 30.10.2018 No.: ROP-SUB-32497- ISAW-1/2018 from: 30.10.2018 No.: ROP-SUB-33474- ISAW-1/2018 from: ISAW-1/2018 from: 07.11.2018 No.: ROP-MID-9340-ISAW- 3/2018 from: 19.11.2018 No.: ROP-MID-9340-ISAW- 3/2018 from: 3/2018 from: 12.2018 No.: ROP-BTP-35243- ISAW-1/2018 from: ISAW+1/2018 from: 03.12.2018 No.: ROP-SUB-35063- ISAW-1/2018 from: 03.12.2018 No.: ROP-SUB-36359- ISAW-1/2018 from: 15.12.2018 No.: ROP-SUB-32496- ISAW-2/2018 from: ISAW-2/2018 from: 14.12.2018 No.: ROP-SUB-32496- ISAW-2/2018 from: ISAW-1/2018 from: 14.12.2018 No.: ROP-SUB-32439- ISAW-2/2018 from: IA.12.2018 No.: ROP-SUB-37421- ISAW-1/2018 from: ISAW-1/2018 from:



PCSS Industrial Zone, Karavukovo Odžaci	ROP-ODZ-39976-ISAWHA- 3/2018 30.03.2018.	Decision pursuant to Article 145
20 kV line Fiorano Kula	ROP-KUL-25825-ISAW- 6/2018 27.04.2018.	Decision pursuant to Article 145
LV line Euroin Kula	ROP-KUL-23127-ISAW- 5/2018 27.04.2018.	Decision pursuant to Article 145
LV line for UNIVEREXPORT Sombor	ROP-SOM-32445-ISAW- 2/2018 04.05.2018.	Decision pursuant to Article 145
LV line, M. Popovića 38-38a, Sombor	ROP-SOM-7801-ISAW- 2/2018 21.05.2018.	Decision pursuant to Article 145
LV line, Kneza Miloša street 18, Sombor	ROP-SOM-8373-ISAW- 2/2018 21.05.2018.	Decision pursuant to Article 145
LV BGS alpha, beta, gama BAC	ROP-BAC-7800-ISAWHA- 3/2018 21.05.2018.	Decision pursuant to Article 145
20 kV line Kapitol Park Sombor	ROP-SOM-6914-ISAWHA- 3/2018 12.06.2018.	Decision pursuant to Article 145
NN network, Telečki road, Kljaljićevo, Sombor	ROP-SOM-23747-ISAW- 1/2018 22.08.2018.	Decision pursuant to Article 145
LV line, R. Končara 13, Sombor	ROP-SOM-16647-Isaw- 2/2018 06.09.2018.	Decision pursuant to Article 145
LV line, Vojnička 19, Sombor	ROP-SOM-25836-ISAW- 1/2018 10.09.2018.	Decision pursuant to Article 145
LV line, R. Končara 23, Sombor	ROP-SOM-16654-ISAW- 2/2018 10.09.2018.	Decision pursuant to Article 145
Cabling for Traffic roundabout Vojvođanska, Sombor	ROP-SOM-14225-ISAW- 2/2018 14.09.2018.	Decision pursuant to Article 145
20 kV line for SS CS Mali Stapar, Kula	ROP-KUL-23979-ISAW- 2/2018 24.09.2018.	Decision pursuant to Article 145
20 kV line for SS CS Ruski Krstur, Odžaci	ROP-ODZ-4706-ISAW- 2/2018 26.09.2018.	Decision pursuant to Article 145
20 kV cable SS unit 4B – SS S. Opsenice, Apatin	ROP-APA-28888-ISAW- 2/2018 04.10.2018.	Decision pursuant to Article 145
Cabling, P. Šandora street, Apatin	ROP-APA-31810-ISAW- 1/2018 26.10.2018.	Decision pursuant to Article 145
LV line, S. Radosavljevića 20, Sombor	ROP-SOM-30599-ISAW- 2/2018 29.11.2018.	Decision pursuant to Article 145
ED ZRANJANIN		
LV cable line in Unit C in Kikinda	ROP-KIK-8647-ISAW- 1/2018, III-09-351-2- 32/2018.	
LV cable line Latinović in Titel	ROP-TIT-12604-ISAW- 1/2018, 351-966/2018-IV- 02;	
CSS – 25, MV and LV distribution system in Zrenjanin	ROP-ZRE-15737-ISAW- 3/2018, 351-13/2018-156- IV-05-02;	
MV Cable in Stevana Sremca street, Kikinda	ROP-KIK-14507-ISAW- 3/2018, III-09-351-2- 105/2018;	
Adjustment in SS 110/20 3P 1	ROP-ZRE-15625-ISAW- 1/2018, 351-13/2018-55-IV- 05-02	



MB in F. Kluza street, in Zrenjanin	ROP-ZRE-25100-ISAW- 1/2018, 351-13/2018-111- IV-05-02;	
Relocation of TL from DSS – 11 in Sečanj	ROP-SEC-20227-ISAW- 1/2018, 351-61/2018-II;	
LV cable for Diocese of Zrenjanin.	ROP-ZRE-19291-ISAW- 1/2018, 351-13/2018-76-IV- 05-02;	
LV cable and DSS for "Gordon" in Kikinda"	ROP-KIK-14510-ISAW- 3/2018, III-09-351-2- 115/2018;	
MV and LV distribution system, market in Kikinda	ROP-KIK-17170-ISAW- 4/2018, III-09-351-2- 136/2018	
LV cable "Rabrenović", Zrenjanin	ROP-ZRE-27270-ISAW- 4/2018, 351-13/2018-174- IV-05-02	
LV cable for "Bioelektrik"	ROP-ZRE-31258-ISAW- 1/2018, 351-13/2018-140- IV-05-02	
LV cable and LV network for DM plast Žitište	ROP-ZIT-34776-ISAW- 1/2018, III-05-351-150/2018;	
MV cable from DSS – 51 to DSS – 52 and DSS – 53	ROP-ZRE-4961-ISAW- 1/2018; 351-13/2018-17-IV- 05-02;	
LV cable "Maksimović gradnja"	ROP-ZRE-12853-ISAW- 1/2018, 351-13/2018-43-IV- 05-02;	
TL Begejci – Sečanj	ROP-ZIT-6074-CPI-2/2018, III -05-351-45/2018.	
TL Begejci – Sečanj	ROP-SEC-6062-CPI- 2/2017, 351-77/2017- II	
LV cable for "Mera" d.o.o. in Zrenjanin	ROP-ZRE-31183-ISAW- 1/2018, 351-IV-05-01-352-1- 484/18.	
CSS, MV and LV distribution system Kumanovska Kikinda	ROP-KIK-4333-ISAW- 2/2018, III-09-351-2- 60/2018.	
ED NOVI SAD		
SS "Proleterska" and SS "Masarikova 2" with HV and LV lines, Gložan	ROP-BPE-20620-ISAW- 2/2018 from 05.03.2018.	
Cable lines 20 kV from the point of decoupled ends of existing outputs "Gložan" and "DSS Bački Petrovac" to SS "Proleterska" and from TP "Proleterska" to new lettice steel pole MB, Gložan	ROP-BPE-33779-ISAW- 3/2018 from 19.11.2018.	
LV output from SS "Vuk Karadžić" for Miletićeva street, Gospođinci	ROP-ZAL-5342-ISAWHA- 2/2018 from 17.04.2018.	
PMTS "Sveta Petka" with HV and LV network, Gospođinci	ROP-ZAL-32027-ISAWHA- 2/2018 from 27.02.2018.	
Underground 35 kV and 20 kV lines for reverse transformation in SS "Čelarevo", Čelarevo	ROP-PSUGZ-3214-ISAW- 1/2018 from 08.03.2018.	
PMTS 20/0,4 kV "Mikole Kočiša" with associated overhead and underground MV and LV lines, Đurđevo	ROP-ZAL-22661-ISAW- 1/2018 from 10.08.2018.	



CSS "Prote Mihaldžića", Petrovaradin	ROP-NSD-14618-ISAW- 1/2018 from 05.06.2018.	
Overhead 0,4 kV line in Eržebet Juhas street, Rumenka	ROP-NSD-29967-ISAW- 1/2018 from 24.10.2018.	
Cable 20 kV line from existing SS 110/20kV "Rimski šančevi" to existing SS 20/0,4 kV "Bulka", Novi Sad	ROP-NSD-4993-ISAW- 1/2018 from 09.03.2018.	
Underground 20 kV line from SS 35/10kV "Petrovaradin" to PO "Beogradska kapija", Petrovaradin	ROP-NSD-28709-ISAW- 1/2018 from 22.10.2018.	
Underground 0,4 kV line for Avrama Mrazovića street in Slavujeva street, Novi Sad	ROP-NSD-39223-ISAW- 2/2018 from 20.03.2018.	
Underground 0,4 kV network in Veljka Petrovića 12, Novi Sad	ROP-NSD-4379-ISAWH- 2/2018 from 04.04.2018.	
Overhead 0,4 κV network in block 18, Temerin	ROP-TEM-1695-ISAW- 1/2018 from 26.01.2018.	
Indoor substation "Futoška 3" with underground 20 and 0,4 kV lines, Novi Sad	ROP-NSD-32035-ISAW- 3/2018 from 30.01.2018.	
Underground 0,4 kV network in Stevana Hristića 3, Novi Sad	ROP-NSD-181-ISAW- 1/2018 from 15.01.2018.	
Distributive 0,4 kV network, in the extension of the street Železnička, Futog	ROP-NSD-9815-ISAW- 1/2018 from 13.05.2018.	
Distributive 0,4 kV network un Danika Kiša 19, Novi Sad	ROP-NSD-5949-ISAW- 3/2018 from 04.09.2018	
SS "Kornelija Stankovića 2" with 20 and 0,4 kV underground distributive network, Novi Sad	ROP-NSD-882-ISAWHA- 2/2018 from 13.02.2018.	
Overhead 0,4 kV network, in Nova nn (parallel with Bogdana Čiplića street), Veternik	ROP-NSD-1063-ISAWHA- 2/2018 from 01.02.2018.	
PMTS "Crpka Jadran" with underground 20 and 0,4 kV cable lines, Obrovac	ROP-BAP-13176-ISAW- 2/2018 from 21.09.2018.	
Cable line 20 kV for feeding SS "Vodozahvat - Bačko Petrovo Selo", Bačko Petrovo Selo	ROP-BEC-20101-ISAW- 3/2018 from 10.05.2018.	
SS "Donje zemlje" with 20 and 0,4 kV distributin network, Novi Sad	ROP-NSD-24035-ISAW- 1/2018 from 22.08.2018.	
Underground 0,4 kV line for a business facility un Belilo 71, Sremski Karlovci	ROP-SKA-2973-ISAW- 2/2018 from 11.04.2018.	
Underground 0,4 kV lines for the facility in Patrijarha Čarnojevića 9 – 13, Novi Sad	ROP-NSD-27711-ISAW- 1/2018 from 26.10.2018.	
Underground 0,4 kV line for the facility in Bogdana Šuputa nn, Novi Sad	ROP-NSD-2526-ISAW- 1/2018 from 05.02.2018.	
Underground 20 kV line for SS "Neoplanta - zalivni sistem", Čenej	ROP-NSD-15952-ISAW- 1/2018 from 25.06.2018.	
Underground 0,4 kV line for the facility in Bulevar Patrijarha Pavla nn in Novi Sad, Novi Sad	ROP-NSD-12454-ISAW- 1/2018 from 16.05.2018.	
SS "Nikola Tesla 2" with MV and LV lines, Begeč	ROP-NSD-5610-ISAW- 1/2018 from 15.05.2018.	
Underground 0,4 kV lines for the facility at the corner of Cara Dušana and Futoška, Novi Sad	ROP-NSD-29085-ISAW- 1/2018 from 11.10.2018.	
Underground 0,4 kV line for the facility in Tone Hadžića 16, Novi Sad	ROP-NSD-4580-ISAW- 1/2018 from 30.03.2018.	
SS "Stražilovska 3" with associated 20 and 0,4 kV lines, Novi Sad	ROP-NSD-19111-ISAW- 6/2018 from 27.02.2018.	



Underground 0,4 kV line for gas station in Bulevar Cara	ROP-NSD-37162-ISAW-	
Lazara, Novi Sad	1/2018 from 19.12.2018.	
CCSS "Hajduk Veljkova 2" with associated MV and LV network, Bečej	ROP-BEC-1318-ISAWHA- 2/2018 from 19.02.2018.	
CCSS "Železnička stanica" with associated MV and LV network, Čurug	ROP-ZAL-36153-ISAWHA- 3/2018 from 12.03.2018.	
PMTS "Fruškogorska", Sviloš	ROP-BEO-28430-ISAW- 1/2018 from 10.10.2018.	
Underground 20kV taps "Bukovački put" and "Tome Matića" from SS 110/20kV "Novi Sad 6", Petrovaradin	ROP-NSD-36150-ISAW- 3/2018 from 18.06.2018.	
Underground 35 kV lines on taps "Industrija – kanal 1" and "Industrija - kanal 2" and underground 20kV line on tap "Flora" from SS 110/35/20kV "Bečej", Bečej	ROP-BEC-30593-ISAWHA- 3/2018 from 27.07.2018.	
PCSS "Proleterska 2" with associated MV and LV network, Bačka Palanka	ROP-BAP-32856-ISAW- 1/2018 from 02.10.2019.	
Cable 20 kV line from existing SS 20/0.4 kV "Somborska" in Partizanska street up to existing cable 20 kV line on CP 7235/6, Bačka Palanka	ROP-BAP-9821-ISAW- 2/2018 from 06.11.2018.	
Underground 20 kV lines for SS "NEPI", Novi Sad	ROP-NSD-12402-ISAW- 1/2018 from 18.05.2018.	
Underground 20 kV cables for SS "Ivić", Kać	ROP-NSD-33638-ISAW- 2/2017 from 22.01.2018.	
Underground 0,4 kV network in Marije Bursać street, Novi Sad	ROP-NSD-4318-ISAW- 1/2018 from 10.05.2018.	
Underground 0,4 kV network in Cetinjska street, Novi Sad	ROP-NSD-4318-ISAW- 1/2018 from 02.02.2018.	
Underground 0,4 kV network for the facility at the corner of Šumska street and Svetolika Rankovića street, Novi Sad	ROP-NSD-22451-ISAW- 1/2018 from 17.08.2018.	
Underground 0,4 kV line for the facility in Fruškogorska street 6, Ledinci	ROP-NSD-3210-ISAWHA- 4/2018 from 28.05.2018.	
Underground 0,4 kV line for the facility on CP No. 4528/1 C.M. Kać from PMTS "Nemanovci 3", Čenej	ROP-NSD-30338-ISAW- 1/2018 from 02.11.2018.	
Underground 20 kV network for SS "Prečistač Srbobran", Srbobran	ROP-SRB-15991-ISAW- 1/2018 from 15.06.2018.	
Overhead LV network from PMTS "Repetitor Vizić", Bačka Palanka	ROP-BAP-25860-ISAW- 2/2018 from 04.04.2018.	
Underground 0,4 kV line for Orlovića Pavla street 12- 18, Novi Sad	ROP-NSD-40024-ISAWHA- 1/2017 from 12.01.2018.	
Underground 20 kV tap "Subotička" from SS 35/10 kV "Telep", Novi Sad	ROP-NSD-2208-ISAWHA- 2/2018 from 08.03.2018.	
Underground 20 kV lines for SS "Zagrebačka", Novi Sad	ROP-NSD-4692-ISAW- 1/2018 from 01.03.2018.	
Reconstruction of SS "Zagrebačka" at 20 kV voltage, Novi Sad	ROP-NSD-4317-ISAW- 1/2018 from 17.04.2018.	
Underground 20 kV lines for SS "Dečija bolnica", Novi Sad	ROP-NSD-18742-ISAW- 1/2018 from 10.07.2018.	
Underground 20 kV lines for SS "Urgentni centar" to the future DSS 20 kV "Telep", Novi Sad	ROP-NSD-18208-ISAW- 1/2018 from 10.07.2018.	
PCSS Veselina Masleše 3 with MV and LV network, Bačka Palanka	ROP-BAP-31581-ISAW- 2/2018 from 21.09.2018.	



Underground 20 kV network from SS "Drljača", SS "Dom zdravlja" and SS "Poslovni centar", Bačka Palanka	ROP-BAP-14614-ISAW- 1/2018 from 21.09.2018.	
Underground 20 kV lines between SS "Pijaca" и SS "Borisa Kidriča", Bačka Palanka	ROP-BAP-5699-ISAW- 2/2018 from 28.12.2018.	
Underground 0,4 kV line for the facility in Samarski put nn, Ledinci	ROP-NSD-20028-ISAWHA- 2/2018 from 18.09.2018.	
Underground 0,4 kV line for the facility at the corner of Svetozara Ćorovića street and Stevana Dejanova street, Novi Sad	ROP-NSD-4236-ISAW- 1/2018 from 17.04.2018.	
Underground 0,4 kV lines for the facility at the corner of Veselina Masleše street and Branka Bajića, Novi Sad	ROP-NSD-6334-ISAW- 1/2018 from 27.03.2018.	
Underground 35kV tap "Futog" from SS 110/35kV "Novi Sad 2", Novi Sad	ROP-NSD-5636-ISAWHA- 2/2018 from 12.04.2018.	
Underground 0,4 kV line for the facility in Rade Kondića street 2, Futog	ROP-NSD-32034-ISAW- 3/2018 from 25.12.2018.	
Underground 0,4 kV line for the facility in Laze Lazarevića street 1, Novi Sad	ROP-NSD-6183-ISAW- 1/2018 from 31.05.2018.	
Underground 0,4 kV lines for business premisses PE "Srbijagas", Bulevar Oslobođenja 5, Novi Sad	ROP-NSD-9062-ISAW- 1/2018 from 11.05.2018.	
Underground 20 kV lines for SS "Grdsko zelenilo – Klisa", Novi Sad	ROP-NSD-31110-ISAW- 1/2018 from 23.10.2018.	
Underground 0,4 kV line for the facility in Đakona Avakuma nn, Novi Sad	ROP-NSD-4926-ISAWHA- 3/2018 from 28.05.2018.	
PMTS "Save Kovačevića 2" with underground 0,4 kV lines, Bačka Palanka	ROP-BAP-9830-ISAW- 1/2018 from 05.07.2018.	
Underground 0,4 kV line for the facility in Svetozara Markovića 50, Begeč	ROP-NSD-4404-ISAW- 2/2018 from 17.05.2018.	
Extension of MV unit in SS "Velvet farm" for connection of new power plant, Čurug	ROP-ZAL-2688-ISAW- 2/2018 from 22.03.2018.	
Underground 0,4 kV network for the facility in Janka Čmelika Street 45-47, Novi Sad	ROP-NSD-2205-ISAWHA- 2/2018 from 01.03.2018.	
Underground 0,4 kV line for the facility in Heroja Pinkija 46, Novi Sad	ROP-NSD-2212-ISAWHA- 2/2018 from 08.02.2018.	
PCSS "Sime Šolaje" with associated MV network, Novi Sad	ROP-NSD-2209-ISAW- 1/2018 from 01.03.2018.	
Overhead 0,4 kV network on poles MB, Sremski Karlovci	ROP-SKA-2665-ISAW- 1/2018 from 12.02.2018.	
Connectiong overhead and underground 20 kV network for SS "Mistral", Čurug	ROP-ZAL-2310-ISAW- 2/2018 from 24.07.2018	
PMTS "Vladimira Nazora" with associated MV and LV network, Bačko Petrovo Selo	ROP-BEC-5343-ISAW- 1/2018 from 08.03.2018.	
PMTS "Zmaj Jovina" with associated MV and LV network, Bačko Petrovo Selo	ROP-BEC-14616-ISAW- 1/2018 from 04.06.2018.	
PMTS "Principova 2" with associated MV and LV network, Bačko Petrovo Selo	ROP-BEC-12769-ISAWHA- 2/2018 from 01.06.2018.	
Overhead and underground LV network from SS "Njive Futog" for Nova street, Futog	ROP-NSD-32759-ISAW- 1/2018 from 30.11.2018	
PMTS "Teodora Češljara" with associated MV and LV network, Bačko Petrovo Selo	ROP-BEC-11098-ISAW- 1/2018 from 08.05.2018	
Underground 0,4 kV line from PMTS "Nikola Tesla" to lattice steel pole MB at the corner of Nikola Tesla street and Pante Popovića street, Bačko Petrovo Selo	ROP-BEC-6581-ISAW- 1/2018 from 20.03.2018.	



PMTS "Loboda" with LV overhead network, Bačko Petrovo Selo	ROP-BEC-10136-ISAW- 1/2018 from 26.04.2018.	
PMTS "Branka Radičevića" with associated MV and LV network, Bačko Petrovo Selo	ROP-BEC-11101-ISAW- 1/2018 from 08.05.2018	
PMTS "Principova" with associated MV and LV network, Bačko Petrovo Selo	ROP-BEC-14599-ISAW- 1/2018 from 31.05.2018.	
Overhead 0,4 kV network in Oslobođenja street (between Branka Radičevića street and Dositeja Obradovića street), Begeč	ROP-NSD-2670-ISAWHA- 2/2018 from 29.03.2018.	
Underground 0,4 kV network for the facility in Kosovska street 28-30, Novi Sad	ROP-NSD-2202-ISAW- 1/2018 from 05.02.2018.	
Underground 0,4 kV network for the facility in Kralja Petar I street 87, Bačka Palanka	ROP-BAP-1570-ISAW- 2/2018 from 21.09.2018.	
Underground 0,4 kV network из SS "Sime Šolaje", Novi Sad	ROP-NSD-25381-ISAW- 1/2018 from 05.10.2018.	
Underground 0,4 kV network for the facility in Ilirska street nn and Kiš Ernea street nn, Novi Sad	ROP-NSD-12666-ISAW- 1/2018 from 31.05.2018.	
Underground 0,4 kV network in Desanke Aksimović Street nn, Novi Sad	ROP-NSD-4316-ISAW- 1/2018 from 27.02.2018.	
Cable line 20 kV from WMSS "Centar" to lattice steel pole MB at the corner or Imrea Kiša street an Imrea Ciroki Fetera street, Bačko Petrovo Selo	ROP-BEC-10114-ISAW- 1/2018 from 24.04.2018.	
Reconstruction of WMSS "Centar", Bačko Petrovo Selo	ROP-BEC-10118-ISAW- 1/2018 from 24.04.2018.	
Underground 20 kV lines on taps "Bačko Petrovo Selo" and "Zalivni sistem PIK" from SS 110/35/20 kV "Bečej", Bečej	ROP-BEC-30435-ISAWHA- 4/2018 from 25.10.2018.	
Underground 20 kV lines for SS "Agro produkt Srb", Gospođinci	ROP-ZAL-29120-ISAWHA- 6/2018 from 11.05.2018.	
Underground 0,4 kV network for the facility in Nova street from SS "Desanke Maksimović 2", Novi Sad	ROP-NSD-16008-ISAW- 1/2018 from 25.06.2018.	
Underground 0,4 kV lines in Đorđa Rajkovića 21-23, Novi Sad	ROP-NSD-15487-ISAW- 1/2018 from 11.06.2018.	
Underground 0,4 kV line for the facility in Dimitrija Avramovića 17, Novi Sad	ROP-NSD-2524-ISAW- 1/2018 from 09.02.2018.	
Underground 0,4 kV line for the facility in Kralja Petra I 53-55, Bačka Palanka	ROP-BAP-18533-ISAW- 1/2018 from 11.09.2018.	
Cable LV netrwork for the facility in Bulevar Patrijarha Pavla 19-23, Novi Sad	ROP-NSD-2671-ISAW- 1/2018 from 09.02.2018.	
Underground 0,4 kV line for the facility in Aleksa Šantića street 59, Novi Sad	ROP-NSD-6155-ISAW- 1/2018 from 16.03.2018.	
SS "Vojvode Putnika" with associated MV and LV network, Veternik	ROP-NSD-11091-ISAW- 1/2018 from 23.05.2018.	
PCSS "Čeratska 3" with associated MV and LV network, Sremski Karlovci	ROP-SKA-12616-ISAW- 1/2018 from 22.05.2018.	
Overhead LV networks in Sentandrejski put, Omladinska street and Velebitska street, Novi Sad	ROP-NSD-11238-ISAW- 1/2018 from 10.05.2018.	
Underground 0,4 kV line for the facility in Starine Novaka 13, Novi Sad	ROP-NSD-16006-ISAW- 1/2018 from 25.06.2018.	
SS "Arona Zagorice" with associated MV and LV network, Novi Sad	ROP-NSD-17559-ISAW- 1/2018 from 05.07.2018.	
Overhead 20 kV linr for PMTS "URI", Temerin	ROP-TEM-11667/ISAW- 2/2018 from 02.08.2018.	
Underground 20 kV lines for SS "Bojović", Novi Sad	ROP-NSD-14904-ISAW- 2/2018 from 10.09.2018.	



Overhead LV network inthe part of streets Bore Stankovića and Emanuela Jankovića, Novi Sad	ROP-NSD-8660-ISAW- 1/2018 from 11.05.2018.	
Underground 0,4 kV lines for the facility in Đurđa Brankovića 14, Novi Sad	ROP-NSD-25199-ISAW- 1/2018 from 13.09.2018.	
Underground 0,4 kV line for the facility in Braće Ribnikar 7-9, Novi Sad	ROP-NSD-12768-ISAW- 1/2018 from 15.06.2018.	
Underground 0,4 kV line for the facility in Drvarska nn,Novi Sad	ROP-NSD-10138-ISAW- 1/2018 from 22.05.2018.	
Underground 0,4 kV line for the facility in Ćipranova 11, Novi Sad	ROP-NSD-16671-ISAW- 1/2018 from 26.06.2018.	
PMTS "Dunis" with connection 20kV overhead line, Futog	ROP-NSD-16003-ISAW- 1/2018 from 26.06.2018.	
Underground 0,4 kV lines for the facility in Đure Kneževića nn, Bačka Palanka	ROP-BAP-35582-ISAW- 1/2018 from 06.12.2018.	
PMTS "Spektar Vizić" са припадајућим 20kV подземним водом, Визић	ROP-BAP-38817-ISAW- 3/2018 from 02.07.2018.	
Underground 0,4 kV line for the facility in Cara Lazara 228, Bačka Palanka	ROP-BAP-13118-ISAW- 3/2018 from 02.10.2018.	
Underground 0,4 kV line for the facility in Anđe Ranković nn, Novi Sad	ROP-NSD-5848-ISAW- 1/2018 from 17.04.2018.	
Underground 0,4 kV line for the facility in Bolmanska nn, Novi Sad	ROP-NSD-8655-ISAWHA- 2/2018 from 22.05.2018.	
Connection overhead line 20 kV for PMTS "Debeljački", Srbobran	ROP-SRB-10433-ISAW- 2/2018 from 25.07.2018.	
Underground 0,4 kV line for the facility in Vojvode Knićanina 3, Novi Sad	ROP-NSD-16016-ISAW- 1/2018 from 27.06.2018.	
Underground 0,4 kV line for the facility in Sentandrejski put nn, Novi Sad	ROP-NSD-17051-ISAW- 1/2018 from 28.06.2018.	
Underground 0,4 kV network for the facility in Janka Čmelika 2, Novi Sad	ROP-NSD-16019-ISAW- 1/2018 from 26.06.2018.	
Underground 0,4 kV network for the facility in Polgar Andraša 8, Novi Sad	ROP-NSD-8561-ISAW- 1/2018 from 15.05.2018.	
SS "Sime Matavulja 2" with underground 20 and 0,4 kV lines, Novi Sad	ROP-NSD-27904-ISAW- 1/2018 from 29.10.2018.	
Underground 20 kV network for SS "Čistoća", Novi Sad	ROP-NSD-18882-ISAW- 1/2018 from 24.07.2018	
Underground 20 kV line for SS "Gradilište RTV", Novi Sad	ROP-NSD-6405-ISAW- 1/2018 from 05.04.2018.	
Underground 0,4 kV line for block cluster 3 in Veselina Masleše 46-48, Novi Sad	ROP-NSD-18579-ISAWHA- 2/2018 from 16.08.2018.	
Underground 0,4 kV network for the facility in Jovana Hranilovića 40, Novi Sad	ROP-NSD-12613-ISAW- 1/2018 from 31.05.2018.	
Underground 0,4 kV network for the facility at the corner of Tekelijina street and Patrijarha Čarnojevića street, Novi Sad	ROP-NSD-20410-ISAW- 1/2018 from 17.08.2018.	
Underground 20 kV network for SS "Kastro", Kulpin	ROP-VRB-40249-ISAW- 2/2018 from 14.02.2018.	
Underground 0,4 kV network for the facility in Novosadski put nn, in the settlement Lipov gaj, Novi Sad	ROP-NSD-14690-ISAW- 1/2018 from 05.06.2018.	
Underground 0,4 kV network for business premisses in Miše Dimitrijevića 12, Novi Sad	ROP-NSD-9705-ISAW- 1/2018 from 19.04.2018.	
Underground 0,4 kV line for the facility in Nova street nn, between Prešernova and Bolmanska, Novi Sad	ROP-NSD-22505-ISAWHA- 2/2018 from 22.10.2018.	



Underground 0.4kV notwork in the extension of the		
street Bogdana Gavrilovića, Sremska Kamenica	1/2018 from 17 08 2018	
Underground $0.4 \mathrm{kV}$ line for the facility in System	ROP-NSD-30316-ISAW-	
Kasapinovića 5. Novi Sad	1/2018 from 25.10.2018.	
Underground and overhead20kV network for SS	ROP-BEC-18198-ISAW-	
"Aretol", Bačko Petrovo Selo	2/2018 from 03.09.2018.	
Underground 0,4 kV line for the facility in Patrijarha	ROP-NSD-21370-ISAW-	
Čarnojevića 33, Novi Sad	1/2018 from 20.08.2018.	
Underground 0,4kV line at the corner of the Kralja		
petra I street and Paje Markovića Adamova street, Novi	1/2018 from 07 06 2018	
Sad	1/2010 11011 07.00.2010.	
Underground 0,4 kV line for the facility on the Put	ROP-NSD-15482-ISAW-	
sajkaskog odreda 7g from the new 55 Put sajkaskog odreda" Novi Sad	1/2018 from 14.06.2018.	
Underground 0.4 kV line for heat substation within		
Primary school "Jovan Jovanović Zmaj", Sremska	ROP-NSD-15990-ISAW-	
Kamenica	1/2018 from 25.06.2018.	
Underground 0,4 kV line for the facility in Jerneja	ROP-NSD-20401-ISAWHA-	
Kopitara 13, Novi Sad	2/2018 from 05.09.2018.	
PCSS "Radna zona" with associated MV and LV	ROP-BPE-29966-ISAWHA-	
network, Bački Petrovac	2/2018 from 02.11.2018.	
Underground 0.4 kV network for the facility in Kotorska	ROP-NSD-21151-ISAW-	
51, Novi Sad	1/2018 from 28.08.2018.	
Underground 0.4 kV line for the facility in Okrugićeva 6	ROP-NSD-35094-ISAW-	
Petrovaradin	1/2018 from 04.12.2018.	
Overhead I V network in Miloša Pocerca street Novi		
Sad	1/2018 from 13.09.2018.	
Underground 0.4 kV network fat the facility in Balice		
directorate in Liubomira Nenadovića nn. Novi Sad	1/2018 from 25 09 2018	
Underground 20 kV network for SS "PC Stoteks 2",	ROP-NSD-18839-ISAW- 1/2018 from 06 08 2018	
	1/2010 110111 00.00.2010.	
Underground 0,4 kV line for business premisses No. 1	ROP-NSD-11439-ISAWHA- 3/2018 from 20.08 2018	
	5/2010 IIUIII 29.00.2010.	
Underground 0,4 kV line for the facility in Kosut Lajosa	ROP-TEM-33796-ISAW-	
Jaderground 0.4.1// line for husiness worshouse	1/2010 10111 13.11.2010.	
facility on CP No. 4292/19 and 4292/20. Bačka	ROP-BAP-30777-ISAW-	
Palanka	1/2018 from 19.10.2018.	
Underground 0.4 kV network for bank brach in Bulevar	ROP-NSD-22456-ISAW-	
Mihajla Pupina, Novi Sad	1/2018 from 29.08.2018.	
Underground 20 kV line from SS "Dositeieva" to SS	ROP-741-18892-ISAWHA-	
"Maminger". Gospođinci	2/2018 from 26.07.2018.	
Underground 0,4 kV line for the facility in Janka	ROP-NSD-335/3-ISAW-	
	1/2010 10111 04.12.2010.	
Underground 0,4 kV line for gas station facility at	ROP-NSD-28884-ISAW-	
Bulevar patrijarha Pavla nn, Novi Sad	1/2018 from 01.10.2018.	
Underground 0,4 kV line for the facility in Ćirila i	ROP-NSD-33791-ISAW-	
Metodija 4, Novi Sad	1/2018 trom 04.12.2018.	
Underground U,4 kV network in Miodraga Ptrovića	KOP-NSD-21221-ISAW-	
Underground $0.4 \text{ k}/\text{ network for the facility in}$		
Zlatarićeva 18. Petrovaradin	1/2018 from 20 08 2018	
Underground 20 kV line at 10kV tan "Čangai" in the		
vicinity of NGC – 1. Novi Sad	2/2018 from 24 12 2018	



Underground 20 kV lines for SS "Dijagnostika", Novi Sad	ROP-NSD-12720-ISAW- 1/2018 from 29.05.2018.	
SS "Jerneja Kopitara" with MV and LV lines, Novi Sad	ROP-NSD-27265-ISAW- 1/2018 from 08.11.2018.	
PMTS "Karin Komerc MD", Sremski Karlovci	ROP-SKA-16648-ISAW- 2/2018 from 25.07.2018.	
Underground 0,4 kV line for the facility in Save Kovačevića 34, Turija	ROP-SRB-20974-ISAW- 1/2018 from 25.07.2018.	
Underground 0,4 kV network in Save Vukosavljeva, Novi Sad	ROP-NSD-25245-ISAW- 1/2018 from 19.09.2018.	
Underground 0,4 kV line for the facility in Jaše Ignjatovića No. 11-13, Novi Sad	ROP-NSD-28104-ISAW- 1/2018 from 11.10.2018.	
Overhead LV network in Baranka Radičevića, Gajdobra	ROP-BAP-35095-ISAW- 1/2018 од 14.12.2018.	
Underground 0,4 kV line for the facility at Bulevar patrijarha Pavla nn, Novi Sad	ROP-NSD-34586-ISAW- 1/2018 from 04.12.2018.	
Underground 0,4 kV network in Save Vukosavljeva (left side) and Nova street, Novi Sad	ROP-NSD-35097-ISAW- 1/2018 from 20.12.2018.	
Underground 0,4 kV line for the facility in Kisački put No. 3, Novi Sad	ROP-NSD-14669-ISAW- 1/2018 from 06.06.2018.	
Underground 0,4 kV network for the facility in Futoški put 27, Novi Sad	ROP-NSD-33799-ISAW- 1/2018 from 05.12.2018.	
Underground 0,4 kV network for the facility in Heroja Pinkija 61, Novi Sad	ROP-NSD-33582-ISAW- 1/2018 from 03.12.2018.	
Underground 0,4 kV line for bus dispatcher container in extension of Jovana Dučića, Novi Sad	ROP-NSD-30261-ISAW- 1/2018 from 18.10.2018.	
SS "Karela Čapeka" with underground 20 and 0.4 kV lines, Novi Sad	ROP-NSD-30961-ISAW- 1/2018 from 31.10.2018.	
Underground 0.4k V line for public lighting of road- railway bridge access roads', Petrovaradin	ROP-NSD-22353-ISAWHA- 2/2018 from 09.10.2018.	
Reconstruction of WMSS "Stoteks", Novi Sad	ROP-NSD-32537-ISAW- 1/2018 from 01.11.2018.	
PCSS "Bulevar Evrope" with associated MV and LV network, Novi Sad	ROP-NSD-30613-ISAW- 2/2018 from 12.12.2018.	
Underground 0,4 kV network for the facility in Bolmanska street 13, Novi Sad	ROP-NSD-33783-ISAW- 1/2018 from 03.12.2018.	
Reconstruction of exiting MV unit in SS "DAS Ristović", Temerin	ROP-TEM-33273-ISAW- 1/2018 from 08.11.2018.	
Underground 35kV lines for constructionpf gas station in Bulevar Evrope, Novi Sad	ROP-NSD-29793-ISAW- 1/2018 from 24.10.2018.	
Underground 0,4 kV line for the facility in Futoška 59, Novi Sad	ROP-NSD-34393-ISAW- 1/2018 from 20.12.2018.	
Underground 0,4 kV line from SS "Branka Ćopića", Novi Sad	ROP-NSD-34680-ISAW- 1/2018 from 24.12.2018.	
Underground 20kV network, switchgear in SS "Uprava 1 PIK Budućnost and facility of delivery point for power plant, Bačka Palanka	ROP-BAP-31311-ISAW- 2/2018 from 26.12.2018.	
Underground 0,4 kV line for pumping station (CS) "Petrovaradinsko naselje", Kać	ROP-NSD-37073-ISAW- 1/2018 from 21.12.2018.	
Underground 0,4 kV line for business premisses in Janka Veselinovića street 15, Novi Sad	ROP-NSD-32546-ISAWHA- 2/2018 from 16.11.2018.	
ED RUMA		



Double cable line 1kV from PCSS "Blok B" for feeding		
residential-business building in Glavna street No. 119	351-94/2018	
and cable line 1kV for feeding Glavna street from No.	22.01.2018.	
133 to 125 in Ruma		
Cable line 20kV from CSS "Detelina" до SS	351-251/2018	
"Borkovačko naselje" in Ruma	01.03.2018.	
Cable line 20kV from SS "Borkovačko naselie" to SS	351-264/2018	
"8 marta" in Ruma	06 03 2018	
Cable line 20kV/ from SS "Borkovačko nasolie" no SS	351 278/2018	
"Dryomaiska 1" in Duma	14 03 2018	
Cable line 201/ from DCSS "Miliague Dakiée" to DCSS	251 262/2019	
"I Lolo Dibara" in Duma	6 02 2019	
	0.03.2010.	
Cable line 20kV from CSS 20/0,4kV Kula 3 to PCSS	351-920/2018	
	10.09.2018.	
Cable line 20kV from PCSS 20/0,4kV "Sodol" do PCSS	351-1020/2018	
20/0,4kV "15. Avgusta" in Ruma	05.10.2018.	
CSS 20/0,4kV "Centar" with MV and LV distribution	351-1090/2018	
system in Hrtkovci	29.10.2018.	
CSS 20/0,4kV "Konak" with MV and LV distribution	351-1053/2018	
system in Platičevo	23.10.2018.	
PCSS 20/0,4kV "Igralište" type EV-21 with MV and LV	351-707/2018	
distribution system in Ruma	16.07.2018.	
PCSS 20/0,4kV "Opština – nova" type EV-41 with MV	351-1210/2018	
and LV distribution system in Ruma	30.11.2018.	
PCSS 20/0.4kV "Prečistač" with double connection 20	351-780/2018	
kV cable line in Ruma	31 07 2018	
PCSS 20/0 4kV "Rumska petlia 1" with connection		
cable line 20kV and LV cable distribution system in	351-441/2018	
Ruma	23.04.2018.	
PCSS 20/0 /kV "Velika Dugoševića" tvpe EV /1 with	351 704/2018	
MV and LV distribution system in Puma	03 08 2018	
DMTS 20/0 4kV/ "Contar" type EV 3 in Paylovoi	351 144/2018	
(replacement WMSS tower)	24 01 2019	
(replacement www.ss – tower)	24.01.2010.	
PMIS "Dositeja Obradovica" with connection 20 kV	351-706/2018	
cable line in vitojevci	16.07.2018.	
PMTS "Vodozahvat 1" and PMTS "Vodozahvat 2" with	351-725/2018	
connection 20 kV cable line on C.M. Zarkovci	20.07.2018.	
Connection 20kV cable line for feeding water intake on	04-351-158/2018	
C.M. Dobrodol	13.07.2018.	
Double cable line 20kV from existing CL 20 kV from SS	351/2018-121	
110/20kV "Krnješevci" to existing SS "Boš" C.M.	1/ 08 2018	
Šimanovci	14.00.2010.	
Overhead IV network in Bellioneke street in Aženia	351/2018-279	
Overneau LV network in Darkanska street in Asanja	27.11.2018.	
	351/2018-284	
Overnead LV network in Kamenova street in Asanja	28.11.2018.	
Overhead LV network in Paie Radosavlievića street in	351/2018-278	
Obrež	26 11 2018	
Extension of overhead I V network in Poninačka street	351/2018-275	
in Sr. Mihalievci	26 11 2018	
	Ron-SMI-381/5-ISAW-	
PMTS "Centar" EV-3, 400 kVA – replacment WMSS –	1/2018	
tower in Jarak	28 12 2018	
Cable line 20 kV from latting atop and a of transmission	20.12.2010.	
Line for Oduževen towards Surduk an OM Stari	02-351-1-174/2018 од	
Inne Ior Odusevac towards Surduk, on C.M. Stafl	20.09.2018.	
Cable line 20kV from lattice steel pole at the corner of	00.054.4.00/0040	
S. Kovacevica street and K. Milosa street to lattice	02-351-1-88/2018 од	
steel pole mixed transmission line in Sava Kovačević	31.05.2018	
street in Beska		
Cable line 20kV from PCSS "Blok 22" to PCSS	02-351-1-173/2018 од	
"Pionirska" in Inđija	18.09.2018.	



Cable line 20kV from PCSS "Stevana Sremca" to	02-351-1-236/2018 од	
PCSS "Blok 22" in Inđija	21.12.2018	
Cable line 20 kV SS "Poljanac" – SS "Sokolski dom" in Inđija	02-351-1-231/2018 од 18.12.2018	
Cable line 20kV from PMTS "Sremska" to PMTS	02-251-1-102/2018 од	
Vinogradarska in Indija	25.06.2018	
to SS 20/0,4 kV "NAP" and to location of splitting of	ROP-SPZ-1472-ISAW- 2/2018 from April 4, 2018	
existing 20 cables for IPB; Pink i Goti		
PCSS "Fruškogorska" with double connection 20 kV	ROP-SPZ-5811-ISAW-	
feeding on Stara Pazova	2/2018, from June 20, 2018	
PMTS 20/0,4kV "Grobljanska 2" with connection cable	ROP-SPZ-22541-ISAW-	
line 20kV in Golubinci	2/2018, from May 14, 2018	
ED SREMSKA MITROVICA		
Cable line 0,4kV from cable connector 0,4kV in Kralja		
Petra I street to new CCB on residential-office building	ROP-SMI-3940-ISAW-	Decision on the
existing CCB on the facility in Severni bedem street to	1/2018	approval of works
new CCB on residential-business building No. 2 in S.	26.02.2018.	
Mitrovica		
DMTS Žaloznička 2 in Žaloznička stroat in Laćarak	ROP-SMI-5997-ISAW-	Decision on the
	13.03.2018.	approval of works
Perceptration of LV overhead network 0.4kV in	ROP-SMI-7692-ISAW-	Decision on the
Ustanička street in Kuzmin	1/2018	approval of works
Cable line 0.4kV from PCSS_Kameniar 1" to CCB EV-	03.04.2018.	
1P/400 and metering cabinet (MC) on the facility		
(entrance "B") and to CCB EV-11P/400 and MC on the	ROP-SMI-8553-ISAW-	
facility (entrance "A") and from CCB 1P/400 in facility	1/2018	Decision on the
parcel No. 5727/13) for social housing building	12.04.2018.	approvaror works
connection in settlement Marko Peričin Kanenjar in		
Sremska Mitrovica		
Reconstruction of LV overhead network 0,4 kV in	ROP-SMI-8559-ISAW-	Decision on the
Radnička street in Veliki Radnici	13.04.2018.	approval of works
Reconstruction of LV overhead network 0.4 kV in	ROP-SMI-9293-ISAW-	Decision on the
Maršala Tita street in Veliki Radnici	1/2018	approval of works
Cable line 20kV from SS 20/0.4 kV. Hladniača" to cable	18.04.2018.	
connector 20 kV toward SS 20/0,4 kV "Luka 2" and CL	ROP-SMI-9917-ISAW-	Desisions de
20kV from SS 20/0,4 kV "Hladnjača" to cable connector	1/2018	Decision on the
20 kV to SS 20/0,4 kV "Luka Leget" in Sremska	20.04.2018.	
Cable line 0.4 kV from SS_Obdanište" to CCB EV-	ROP-SMI-11600-ISAW-	
2P/600 on the facility in Kralja Petra Prvog street No.	1/2018	Decision on the
70 in Sremska Mitrovica	14.05.2018.	
Reconstruction of LV overhead network 0,4 kV in	ROP-SMI-11769-ISAW-	Decision on the
Njegoševa street in Laćarak	14.05.2018.	approval of works
Cable line 20kV from PCSS 20/0 4kV, Mlekara" to SS	ROP-SID-13975-ISAW-	Decision on the
20/0.4kV "Sremplast" in Šid	1/2018	approval of works
Cable line 0.4kV from CCB on the facility in Knozo	U1.06.2018. ROP-SID-15245-ISAW-	
Miloša street No. 66 to CCB and MOMM on new facility	1/2018	Decision on the
in Kneza Miloša street No. 78 in Šid	08.06.2018.	approval of works
Cable line 20 kV from cable connector at PCSS 20/0,4	ROP-SMI-16024-ISAW-	Decision on the
KV "Stanka Luzajica" to PCSS 20/0,4 kV "IV Voivođanske brigade" in Sremska Mitrovica	1/2018	approval of works
	10.00.2010.	



Cable line 0,4 kV from new CCB on SABP installed directly next to school wall to new CCB at the entrance of office building (hotel) in Kuzminska street in Sremska Mitrovica	ROP-SMI-18745-ISAW- 2/2018 06.07.2018.	Decision on the approval of works
Cable line 0,4 kV from CCB EV-1P on facility in Save Kovačevića street No. 9 to CCB and MC on three multi- storey residential buildings in Jupiterova street No. 102 in Sremska Mitrovica	ROP-SMI-20474-ISAW- 1/2018 19.07.2018.	Decision on the approval of works
Reconstruction of LV overhead network 0,4 kV in settlement Erem	ROP-RUM-23218-ISAW- 1/2018 16.08.2018.	Decision on the approval of works
Cable line 20 kV from cable connections 20kV at lattice steel pole (LSP) in Železnička street to PCSS 20/0,4kV "Cerska" in Laćarak	ROP-SMI-25059-ISAW- 1/2018 30.08.2018.	Decision on the approval of works
Cable line 20 kV from cable connection 20kV at SS 35/0,4kV "lstok" to cable connection 20kV toward PCSS 10(20)/0,4kV "PC MIV" in Sremska Mitrovica	ROP-SMI-17701-ISAW- 2/2018 27.08.2018.	Decision on the approval of works
Cable network 0,4 kV in Dr. Dušana Popovića street and the part of Železnička street in Sremska Mitrovica	ROP-SMI-26148-ISAW- 1/2018 11.09.2018.	Decision on the approval of works
Reconstruction of transmission line 20kV from LSP TL 20kV for Molovin to LSP TL 20kV for border crossing Sot in Sot	ROP-SID-28095-ISAW- 1/2018 27.09.2018.	Decision on the approval of works
Cable line 20kV from new LSP connection TL 20kV for PMTS "D i D Čeman" to WMSS 20/0,4kV "Nova klanica" and replacement of the part of existing CL 20kV within the complex "Srem Šid doo" (from BC 20kV to SS "Hladnjača") in Šid	ROP-SID-29389-ISAW- 1/2018 09.10.2018.	Decision on the approval of works
Cable line 20kV from SS 110/20kV to PMTS 20/0,4kV "Žiroset" in Šid	ROP-SID-29390-ISAW- 1/2018 10.10.2018.	Decision on the approval of works
Double cable line 0,4kV from PCSS "Sportki centar 2" to CCB on the facade of new facility in Bulevar Arsenija Čarnojevića and cable line 0,4kV to new CCB on SABP near facility in Bulevar Arsenija Čarnojevića 40 in S. Mitrovica	ROP-SMI-37385-ISAW- 1/2018 from: 20.12.2018.	Decision on the approval of works
Connection cable line 0,4 kV from PCSS 20/0,4 kV "Obdanište" to measuring point cabinet on residential building in Kralja Petra I street in Sremska Mitrovica	ROP-SMI-11285-ISAW- 2/2018 20.06.2018.	Decision on the approval of works
Cable line 20 kV for PCSS "LIDL" and installation MV (20kV) unit in PCSS "LIDL" in Sremska Mitrovica	ROP-SMI-11068-ISAW- 2/2018 30.05.2018.	Decision on the approval of works
Cable line 20 kV for PCSS "Axioma" and installation of MV (20kV) unit in PCSS "Axioma" in Sremska Mitrovica	ROP-SMI-17528-ISAW- 2/2018 26.09.2018.	Decision on the approval of works
Cable line 20 kV for PCSS "Integral inženjering" and installation of MV (20kV) unit in PCSS "Integral inženjering" in Adaševci	ROP-SID-29003-ISAW- 1/2018 03.10.2018.	Decision on the approval of works
Notice of commencement of works(HV cable from PCSS "Tesla 9" to PCSS "Tesla 14")	ROP-PAN-970-WA-1/2018	
Notice of commencement of works (LV cable from SS "Nemanjina" in Pančevo)	ROP-PAN-1079-WA-1/2018	Completed
Notice of commencement of works (PCSS "Jovana Popovića 2")	ROP-BCR-1189-WA-1/2018	
Notice of commencement of works(HV cable in Bavaništanski put)	ROP-BCR-1189-WA-1/2018	
Notice of commencement of works(HV cable in Debeljača (Centar))	ROP-KOA-1571-WA-1/2018	
Notice of commencement of works(HV cable in Padina)	ROP-KOA-1572-WA-1/2018	
Sadionska street in Bela Crkva)	ROP-BCR-1525-WA-1/2018	



Decision on approval for execution of works (LV	BOP-KOV-1756-ISAW-	
connection for Kyržić in Kovin)	1/2018	Completed
Decision on approval for execution of works (PCSS	ROP-PAN-1765-ISAW-	
Narodna Bašta" in Pančevo)	1/2017	
Notice of commencement of works(I \/ connection for	1/2011	
	ROP-KOV-1756-WA-1/2018	Completed
Notice of commencement of works(PCSS Miletićeva in		
Vršac)	ROP-VRS-4363-WA-1/2017	
1300/		
Location conditions (PCSS "Gudurički put 2")	1/2018	
Location conditions (PCSS "Sindeliceva 3")	1/2018	
Location conditions (LV cable for GP Invest)	1/2019	Completed
Location conditions (PCSS "Fabrika sijalica")	RUP-PAN-/14/-LUCH-	Completed
Desision on annual for succession of works (1) (askin		· · · · · · · · · · · · · · · · · · ·
Decision on approval for execution of works (LV cable	RUP-PAN-7520-ISAWHA-	Completed
for GP Invest)		
Notice of commencement of works (LV cable for GP	ROP-PAN-10219-WA-	Completed
Invest)	1/2018	
	RUP-PAN-11763-WA-	
basta")	1/2018	
Decision on approval for execution of works (PCSS	ROP-PAN-11908-ISAW-	
"Cara Lazara 2")	1/2018	
Location conditions (LV in Karadordeva)	ROP-PAN-11913-LOC-	Completed
	1/2018	
Location conditions (HV cable Kačarevo 110 –	ROP-PAN-8860-LOCH-	Completed
Skrobara 4)	1/2018	p.e.e.
Decision on approval for execution of works (PMTS	ROP-PAN-14006-ISAW-	
"Omoljica 22")	1/2018	
Decision on approval for execution of works (LV	ROP-PAN-14008-ISAW-	
network in Starčevo)	1/2018	
Location conditions (PCSS "Radna zona 2" in Bela	ROP-BCR-14002-LOC-	Completed
Crkva)	1/2018	
Location conditions (PCSS "Bazen"in \/ršac)	ROP-VRS-17297-LOC-	Completed
	1/2018	Completed
Decision on approval for execution of works (PCSS	ROP-VRS-20993-ISAW-	Completed
"Bazen")	1/2018	Completed
Notice of commencement of works (PCSS_Bazen")	ROP-VRS-20993-WA-	Completed
	1/2018	Completed
Decision on approval for execution of works (PCSS	ROP-VRS-18988-ISAW-	Completed
"Radna zona 2")	1/2018	
Notice of commencement of works (PCSS "Radna zona	ROP-BCR-21341-WA-	Completed
2")	1/2018	
Location conditions (LV distribution system from PCSS	ROP-PAN-17742-LOC-	
"Kopaonička" in Pančevo)	1/2018	
Decision on approval for execution of works (PMTS "B.	ROP-ALI-18667-ISAW-	
Karlovac 20" instead of SS "B. Karlovac 2")	1/2018	
Decision on approval for execution of works (HV cable	ROP-PAN-21482-ISWA-	Completed
from SS "Kačarevo 110" to PMTS "Skrobara 4")	1/2018	
Notice of commencement of works (HV cable from SS	ROP-PAN-23736-WA-	Completed
"Kačarevo 110" to PMTS "Skrobara 4")	1/2018	
Location conditions (CSS Sterijina)	ROP-PAN-20998-ISAW-	
	1/2018	
Location conditions (HV cable Sodara 6 – Ivo Kuriački)	ROP-PAN-22928-ISAW-	
	1/2018	
Location conditions (Newsstand in Masarikova)	ROP-PAN-22923-ISAW-	Completed
	1/2018	
Location conditions (Newsstand in Niegoševa)	ROP-PAN-22922-ISAW-	Completed
	1/2018	Completed



Location conditions (HV cable Pančevo 3 – North zone)	ROP-PAN-22929-LOCH- 2/2018	
Location conditions (HV cable for "ZF mobility")	ROP-PAN-22932-LOCH- 2/2018	Completed
Notice of commencement of works (PCSS "Cara Lazara 2")	ROP-PAN-29274-WA- 1/2018	
Notice of commencement of works (PMTS Omoljica 22)	ROP-PAN-29273-WA- 1/2018	
Location conditions (LV in Petra Bojovića)	ROP-PAN-27206-LOC-	Completed
Location conditions (Newsstand near Maxi)	ROP-PAN-27205-LOC-	
Decision on approval for execution of works (HV cable for ZE Mobiliti)	ROP-PAN-29277-ISAW- 1/2018	Completed
Notice of commencement of works (HV cable for SS bank)	ROP-PAN-31406-WA- 1/2018	
Notice of commencement of works (LV in Starčevo)	ROP-PAN-34829-WA- 1/2018	
Decision on approval for execution of works (Newsstand near Maxi)	ROP-PAN-33657-ISAW- 1/2018	
Decision on approval for execution of works (LV in Petra Boiovića)	ROP-PAN-33206-ISAWHA- 1/2018	Completed
Decision on approval for execution of works (PCSS	ROP-PAN-34134-ISAW- 1/2018	
Location conditions(CSS "Crni Jovan") in Vršac	ROP-VRS-32833-LOC-	
Notice of commencement of works (Newsstand near	ROP-PAN-35219-WA-	
Notice of commencement of works (LV in Petra Bojovića)	ROP-PAN-35214-WA- 1/2018	Completed
Decision on approval for execution of works (HV Cable Skrobara 6" – PCSS, Ivo Kurjački")	ROP-PAN-35633-ISAW-	
Location conditions (LV Cables from PCSS	ROP-PAN-34077-LOC-	
Notice of commencement of works (PCSS "Sinđelićeva	ROP-PAN-35910-WA-	
Notice of commencement of works (HV Cable for ZF	ROP-PAN-36820-WA- 1/2018	Completed
Location conditions (HV cable and and PMTS Crpna	ROP-PAN-26423-LOC- 2/2018	
Decision on approval for execution of works (HV cable Debeliača – Sefkerin (SO Opovo))	ROP-OPO-36703-ISAW-	
Decision on approval for execution of works HV cable Debeliača –Sefkerin (SO Kovačica))	ROP-KOA-36947-ISAW-	
ED NOVI SAD	1/2010	
SS "Sonje Marinković" with HV and LV lines, Srbobran	ROP-SRB-4589-ISAW-	Decision on approval
Underground 20 kV line извода "Šangaj" from SS 110/20/10 kV, Novi Sad 9", Novi Sad	ROP-NSD-6722-ISAW- 1/2017 from 21 3 2017	Decision on approval
Underground and overhead 20kV lines in Donie	ROP-NSD-10954-ISAW-	Decision on approval
Sajlovo street, Novi Sad	1/2017 from 27.4.2017.	of construction
PMTS "Omladinska 2" with distribution network, Kać	ROP-NSD-13751-ISAW- 2/2017 from 17.10.2017.	Decision on approval of construction
Relocation of underground 20kV line in the part of route between SS 110/20 kV "Novi Sad 5" and SS "No. 2 Novo naselje 4", Novi Sad	ROP-NSD-2966-ISAW- 1/2017 from 13.2.2107.	Decision on approval of construction
Distribution 20kV network from PCSS "Devojačka" to FPC MB in Svetozara Miletića street, Čurug	ROP-ZAL-33103-ISAWHA- 2/2017 from 24.2.2017.	Decision on approval of construction



Underground 0,4 kV line for the facility in Privrednikova nn, Novi Sad	ROP-NSD-31058-ISAW- 2/2017 from 6.11.2017.	Decision on approval of construction
PMTS "Blok 21" with associated MV and LV network, Bački Jarak	ROP-TEM-37414-ISAW- 1/2017 from 4.12.2017.	Decision on approval of construction
Underground 0,4 kV line to the facility un Železnička nn from the planned SS "Industrija 3", Srbobran	ROP-SRB-32613-ISAW- 1/2017 from 24.10.2017.	Decision on approval of construction
Underground 0,4 kV lines for the facility in Bele njive No. 24, Novi Sad	ROP-NSD-19234-ISAW- 1/2017 from 6.7.2017.	Decision on approval of construction
Underground 20 kV line from SS "Veljko Vlahović" to SS "Dositej Obradović" and 0,4kV taps from SS "Veljko Vlahović", Rumenka	ROP-NSD-2968-ISAW- 1/2017 from 13.2.2017.	Decision on approval of construction
Relocation of 20 kV line and 0,4kV pole for construction of facility Primary school "J.J. Zmaj", Ledinci	ROP-NSD-18100-ISAW- 1/2017 from 26.6.2017.	Decision on approval of construction
WMSS "Josifa Runjanina" with 20kV and 0,4kV lines, Novi Sad	ROP-NSD-13000-ISAW- 1/2017 from 16.5.2017.	Decision on approval of construction
Construction of underground 0,4kV network in the part of Sentandrejski put, Novi Sad	ROP-NSD-34332-ISAWHA- 2/2016 from 31.1.2017.	Decision on approval of construction
Overhead 20kV line for connection of 20kV taps "Vrdnik" and "Ledinci", Ledinci	ROP-NSD-8179-ISAW- 1/2017 from 3.3.2017.	Decision on approval of construction
SS "Stevana Sremca 2" with underground 20 and 0,4 kV lines. Novi Sad	ROP-NSD-1659-ISAWHA- 2/2017 from 3.2.2017	Decision on approval of construction
CCSS "Krilova" with underground 20 and 0,4 kV distribution network. Novi Sad	ROP-NSD-36974-ISAW- 1/2017 from 21.11.2017	Decision on approval of construction
PMTS "ČAVIĆ" with overhead 20kV line, Bačka Palanka	ROP-BAP-37404-ISAW- 1/2017 from 1.12.2017.	Decision on approval of construction
SS "Janka Veselinovića" with underground 20 and 0,4 kV distribution network, Novi Sad	ROP-NSD-18230-ISAWHA- 3/2017 from 4.10.2017.	Decision on approval of construction
Underground 0,4 kV distribution network in Primorska street nn, Novi Sad	ROP-NSD-35134-ISAWHA- 2/2017 from 9.1.2017.	Decision on approval of construction
Underground 0,4 kV distribution network in Školska street. Nova Gaidobra	ROP-BAP-13188-ISAW- 2/2016 from 17.1.2017	Decision on approval of construction
Distributive network 0,4 kV in Bulevar oslobođenja 133, Novi Sad	ROP-NSD-317-ISAW- 1/2017 from 11.1.2017.	Decision on approval of construction
Reconstruction of the part of WMSS "Grbavica", Novi Sad	ROP-NSD-288-CPI-1/2017 from 17.1.2017.	Construction permit
Overhead LV network in Nova street in Blok 103, Temerin	ROP-TEM-27975-ISAW- 2/2017 from 19 1 2017	Decision on approval
Distributive network 20kV to SS "UNIVEREXPORT 1",	2/2017 from 15.11.2017. ROP-NSD-3664-ISAW- 1/2017 from 23.2.2017	Decision on approval
PMTS "Bjeloš", Bačka Palanka	2/2017 from 7.7.2017. ROP-BAP-10953-ISAW- 2/2017 from 15 44 2017	of construction Decision on approval
street No. 12, Novi Sad	1/2017 from 3.2.2017. ROP-BAP-6076-ISAW-	of construction Decision on approval
street, Novi Sad Distribution network 0,4kV in Novosadskog sajma	1/2017 from 12.12.2017. ROP-NSD-2126-ISAW-	of construction Decision on approval
Construction of cable network in Ruđera Boškovića	ROP-NSD-38193-ISAW-	Decision on approval
Underground 0,4 kV lines for the facility in Janka	ROP-NSD-2817-ISAW-	Decision on approval
Overhead 20kV connection line for SS "P.D. Nova	1/2017 from 12.10.2017. ROP-TEM-12095-ISAW- 1/2017 from 10.5 2017	Decision on approval
PCSS "Kardan" with MV and LV lines, Temerin	ROP-TEM-31445-ISAW-	Decision on approval



Underground 0,4 kV line for the facility at the corner of Koste Racina street and Svete Kasapinovića street, Novi Sad	ROP-NSD-4660-ISAWHA- 4/2017 from 12.7.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility in Branko	ROP-NSD-35142-ISAWHA-	Decision on approval
Radičević 6-6a, Novi Sad	2/2017 from 4.11.2017.	of construction
SS "Mala Karagača 2" with associated 20 and 0,4 kV underground lines, Petrovaradin	ROP-NSD-31371-ISAW- 1/2017 from 13.10.2017.	Decision on approval of construction
Underground 20 kV lines for SS "Delta agrar",	ROP-BAP-15664-ISAW-	Decision on approval
Челарево	1/2017 from 9.6.2017.	of construction
Underground 20 kV lines for working zone Sever 2 and SS "Privrednikova 4" with MV and LV lines, Novi Sad	ROP-NSD-20608-ISAWHA- 2/2017 from 19.7.2017.	Decision on approval of construction
SS "Duvan 2" with 20 and 0,4 kV underground lines,	ROP-NSD-8561-ISAW-	Decision on approval
Novi Sad	1/2017 from 5.4.2017.	of construction
Underground 20 kV lines for SS "Školski centar", Novi	ROP-NSD-871-ISAWHA-	Decision on approval
Sad	2/2017 from 31.1.2017.	of construction
Underground 0,4 kV line for the facility in Okrugićeva 22, Petrovaradin	ROP-NSD-573-ISAW- 1/2017 from 16.1.2017.	Decision on approval of construction
SS "Banijska 2" with associated 20 and 0,4 kV lines,	ROP-NSD-14599-ISAW-	Decision on approval
Novi Sad	1/2017 from 29.5.2017.	of construction
Overhead 0,4 kV network in Nova 2, in Mali Beograd,	ROP-NSD-1629-ISAW-	Decision on approval
Novi Sad	1/2017 from 31.1.2017.	of construction
Overhead 0,4kV network on the branch of the street Pašićeva, Rakovac	ROP-BEO-34723-ISAW- 1/2016 from 11.1.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility in Novosadska nn, Čelarevo	ROP-BAP-18089-ISAW- 1/2017 from 25.7.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility in Nikola Tesla 22, Temerin	ROP-TEM-1278-ISAW- 3/2017 from 20.4.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility in Miroslava	ROP-NSD-12980-ISAW-	Decision on approval
Prodanovića Micka nn, Novi Sad	1/2017 from 15.5.2017.	of construction
Underground 20 kV lines for SS "Lampone" (from SS	ROP-BPE-19445-ISAWHA-	Decision on approval
"Drvno" to SS "Inox"), Bački Petrovac	2/2017 from 8.8.2017.	of construction
Underground 0,4 kV line in Bratislavska street, Bački	ROP-BPE-13347-ISAW-	Decision on approval
Petrovac	1/2017 from 17.5.2017.	of construction
Underground 0,4 kV line for facilities in Kosmajska street 19 and 21, Novi Sad	ROP-NSD-3736-ISAW- 1/2017 from 23.2.2017.	Decision on approval of construction
Underground 0,4 kV network on stretch Belješevo,	ROP-SKA-7983-ISAW-	Decision on approval
Sremski Karlovci	1/2017 from 31.3.2017.	of construction
Underground 0,4 kV line for Primary school "Jovan Jovanović Zmaj", Ledinci	ROP-NSD-24107-ISAW- 1/2017 from 16.8.2017.	Decision on approval of construction
Underground 0,4 kV lines from PCSS "Panonija UVD",	ROP-BPE-14447-ISAW-	Decision on approval
Bački Petrovac	1/2017 from 30.5.2017.	of construction
Underground 0,4 kV line for the facility in Narodne revolucije 60, Bački Petrovac	ROP-BPE-14817-ISAWHA- 2/2017 from 2.6.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility at the corner of Jug Bogdana and Tekelijina, Novi Sad	ROP-NSD-5899-ISAW- 1/2017 from 14.3.2017.	Decision on approval of construction
Underground 0,4 kV network on stretch Krivac from	ROP-SKA-3872-ISAW-	Decision on approval
PMTS "Karaš", Sremski Karlovci	1/2017 from 1.3.2017.	of construction
Underground 0,4 kV line for the facility in Gundulićeva	ROP-NSD-7976-ISAW-	Decision on approval
street 34-36, Novi Sad	1/2017 from 30.3.2017.	of construction
Underground 0,4 kV network in Vojvode Mišića street,	ROP-BEO-28984-ISAWHA-	Decision on approval
Rakovac	2/2017 from 17.11.2017.	of construction
Underground 0,4 kV line for Primary school "Ivo	ROP-NSD-6805-ISAW-	Decision on approval
Andrić", Budisava	1/2017 from 28.3.2017.	of construction



ROP-NSD-2099-ISAW- 1/2017 from 2.2.2017.		Decision on approval of construction
ROP-NSD-1408-ISAW- 1/2017 from 26.1.2107.		Decision on approval of construction
ROP-NSD-13345-ISAWHA- 2/2017 from 25.5.2017.		Decision on approval of construction
ROP-NSD-25859-ISAW- 1/2017. from 30.8.2017.		Decision on approval of construction
ROP-NSD-34889-ISAW- 1/2017 from 20.11.2017.		Decision on approval of construction
ROP-NSD-5350-ISAW- 1/2017 from 10.3.2017.		Decision on approval of construction
ROP-NSD-1421-ISAW- 1/2017 from 26.1.2917.		Decision on approval of construction
ROP-NSD-572-ISAW- 1/2017 from 16.1.2017.		Decision on approval of construction
ROP-NSD-28974-ISAWHA- 2/2017 from 6.10.2017.		Decision on approval of construction
ROP-BAP-36965-ISAW- 1/2017 from 1.12.2017.		Decision on approval of construction
ROP-NSD-3733-ISAW- 1/2017 from 23.2.2017.		Decision on approval of construction
ROP-NSD-2398-ISAWHA- 2/2017 from 10.2.2017.		Decision on approval of construction
ROP-NSD-612-ISAW- 1/2017 from 16.1.2017.		Decision on approval of construction
ROP-NSD-8947-ISAW- 1/2017 from 7.4.2017.		Decision on approval of construction
ROP-NSD-7705-ISAW- 1/2017 from 29.3.2017.		Decision on approval of construction
ROP-BEC-37759-ISAWHA- 2/2017 from 22.12.2017.		Decision on approval of construction
ROP-BEC-30591-ISAW- 1/2017 from 27.11.2017.		Decision on approval of construction
ROP-BEC-29009-ISAW- 1/2017 from 29.9.2017.		Decision on approval of construction
ROP-BEC-13869-ISAW- 2/2017 from 12.10.2017.		Decision on approval of construction
ROP-NSD-2836-ISAW- 1/2017 from 13.2.2017.		Decision on approval of construction
ROP-NSD-16205-ISAW- 1/2017 from 16.6.2017.		Decision on approval of construction
ROP-TIT-7318-ISAW- 2/2017 from 25.9.2017.		Decision on approval of construction
ROP-NSD-14153-ISAW- 1/2017 from 6.7.2017.		Decision on approval of construction
ROP-NSD-13868-ISAWHA- 2/2017 from 4.7.2017.		Decision on approval of construction
ROP-NSD-23604-ISAWHA- 2/2017 from 8.9.2017.		Decision on approval of construction
ROP-NSD-20090-ISAWHA- 2/2017 from 17.7.2017.		Decision on approval of construction
	ROP-NSD-2099-ISAW- 1/2017 from 2.2.2017. ROP-NSD-1408-ISAW- 1/2017 from 26.1.2107. ROP-NSD-13345-ISAWHA- 2/2017 from 25.5.2017. ROP-NSD-25859-ISAW- 1/2017 from 30.8.2017. ROP-NSD-34889-ISAW- 1/2017 from 20.11.2017. ROP-NSD-34889-ISAW- 1/2017 from 10.3.2017. ROP-NSD-5350-ISAW- 1/2017 from 10.3.2017. ROP-NSD-572-ISAW- 1/2017 from 26.1.2917. ROP-NSD-572-ISAW- 1/2017 from 6.10.2017. ROP-NSD-28974-ISAWHA- 2/2017 from 6.10.2017. ROP-NSD-3733-ISAW- 1/2017 from 1.2.2017. ROP-NSD-3733-ISAW- 1/2017 from 10.2.2017. ROP-NSD-2398-ISAWHA- 2/2017 from 10.2.2017. ROP-NSD-612-ISAW- 1/2017 from 16.1.2017. ROP-NSD-8947-ISAW- 1/2017 from 12.10.2017. ROP-NSD-8947-ISAW- 1/2017 from 29.3.2017. ROP-NSD-8947-ISAW- 1/2017 from 27.11.2017. ROP-NSD-8947-ISAW- 1/2017 from 27.11.2017. ROP-NSD-7705-ISAW- 1/2017 from 27.11.2017. ROP-BEC-30591-ISAW- 1/2017 from 27.11.2017. ROP-BEC-30591-ISAW- 1/2017 from 27.11.2017. ROP-BEC-13869-ISAW- 1/2017 from 12.10.2017. ROP-BEC-13869-ISAW- 1/2017 from 13.2.2017. ROP-NSD-14153-ISAW- 1/2017 from 13.2.2017. ROP-NSD-13868-ISAW+ 1/2017 from 4.7.2017. ROP-NSD-13868-ISAW+ 1/2017 from 4.7.2017. <td>ROP-NSD-2099-ISAW- 1/2017 from 2.2.2017. ROP-NSD-1408-ISAW- 1/2017 from 26.1.2107. ROP-NSD-13345-ISAWHA- 2/2017 from 25.5.2017. ROP-NSD-25859-ISAW- 1/2017 from 30.8.2017. ROP-NSD-34889-ISAW- 1/2017 from 20.11.2017. ROP-NSD-5350-ISAW- 1/2017 from 10.3.2017. ROP-NSD-5350-ISAW- 1/2017 from 26.1.2917. ROP-NSD-572-ISAW- 1/2017 from 6.10.2017. ROP-NSD-572-ISAW- 1/2017 from 6.10.2017. ROP-NSD-28974-ISAWHA- 2/2017 from 10.2.2017. ROP-NSD-3733-ISAW- 1/2017 from 12.2017. ROP-NSD-3733-ISAW- 1/2017 from 12.2017. ROP-NSD-3733-ISAW- 1/2017 from 12.2017. ROP-NSD-3733-ISAW- 1/2017 from 12.2017. ROP-NSD-3988-ISAWHA- 2/2017 from 16.1.2017. ROP-NSD-612-ISAW- 1/2017 from 16.1.2017. ROP-NSD-612-ISAW- 1/2017 from 16.1.2017. ROP-NSD-8947-ISAW- 1/2017 from 29.3.2017. ROP-NSD-8947-ISAW- 1/2017 from 29.3.2017. ROP-NSD-705-ISAW- 1/2017 from 29.3.2017. ROP-SBEC-30591-ISAW- 1/2017 from 12.10.2017. ROP-BEC-30591-ISAW- 1/2017 from 13.2.2017. ROP-BEC-13869-ISAW- 2/2017 from 13.2.2017. ROP-NSD-146205-ISAW- 1/2017 from 13.2.2017. ROP-NSD-16205-ISAW- 1/2017 from 13.2.2017. ROP-NSD-16205-ISAW- 1/2017 from 4.7.2017.</td>	ROP-NSD-2099-ISAW- 1/2017 from 2.2.2017. ROP-NSD-1408-ISAW- 1/2017 from 26.1.2107. ROP-NSD-13345-ISAWHA- 2/2017 from 25.5.2017. ROP-NSD-25859-ISAW- 1/2017 from 30.8.2017. ROP-NSD-34889-ISAW- 1/2017 from 20.11.2017. ROP-NSD-5350-ISAW- 1/2017 from 10.3.2017. ROP-NSD-5350-ISAW- 1/2017 from 26.1.2917. ROP-NSD-572-ISAW- 1/2017 from 6.10.2017. ROP-NSD-572-ISAW- 1/2017 from 6.10.2017. ROP-NSD-28974-ISAWHA- 2/2017 from 10.2.2017. ROP-NSD-3733-ISAW- 1/2017 from 12.2017. ROP-NSD-3733-ISAW- 1/2017 from 12.2017. ROP-NSD-3733-ISAW- 1/2017 from 12.2017. ROP-NSD-3733-ISAW- 1/2017 from 12.2017. ROP-NSD-3988-ISAWHA- 2/2017 from 16.1.2017. ROP-NSD-612-ISAW- 1/2017 from 16.1.2017. ROP-NSD-612-ISAW- 1/2017 from 16.1.2017. ROP-NSD-8947-ISAW- 1/2017 from 29.3.2017. ROP-NSD-8947-ISAW- 1/2017 from 29.3.2017. ROP-NSD-705-ISAW- 1/2017 from 29.3.2017. ROP-SBEC-30591-ISAW- 1/2017 from 12.10.2017. ROP-BEC-30591-ISAW- 1/2017 from 13.2.2017. ROP-BEC-13869-ISAW- 2/2017 from 13.2.2017. ROP-NSD-146205-ISAW- 1/2017 from 13.2.2017. ROP-NSD-16205-ISAW- 1/2017 from 13.2.2017. ROP-NSD-16205-ISAW- 1/2017 from 4.7.2017.


Underground 0,4 kV lines for the facility in Somborska	ROP-NSD-35183-ISAW-	Decision on approval
nn (Bulevar Patrijarha Pavla), Novi Sad	2/2017 from 27.12.2017.	of construction
Overhead 0,4kV network in the extension of Maršala	ROP-BEO-27320-ISAW-	Decision on approval
Tita street, Lug	1/2017 from 12.9.2017.	of construction
Underground 0,4 kV line for the facility in Petefi	ROP-NSD-6581-ISAW-	Decision on approval
Šandora 178e, Novi Sad	1/2017 from 21.3.2017.	of construction
Underground 20 kV lines for SS "VIN FARM", Ravno selo	ROP-VRB-29649-ISAWHA- 2/2017 from 20.11.2017.	Decision on approval of construction
Underground 0,4 kV line in Nova street, Novi Sad	ROP-NSD-18172-ISAW- 1/2017 from 28.6.2017.	Decision on approval of construction
Underground 0,4 kV line for facility of preschool	ROP-TEM-13344-ISAW-	Decision on approval
institution, Novosadska street 1, Sirig	2/2017 from 20.9.2017.	of construction
PMTS "Sime Šolaje" with underground cable line 0,4 kV and overhead LV network with ABC conductors 20 and 0,4 kV, Mladenovo	ROP-BAP-17425-ISAW- 2/2017 from 19.12.2017.	Decision on approval of construction
SS "Ilariona Ruvaraca 2" with associated underground 20kV and 0,4kV lines, Novi Sad	ROP-NSD-28838-ISAW- 1/2017 from 26.9.2017.	Decision on approval of construction
Underground 20 kV lines for SS "Gradilište KM", Novi	ROP-NSD-1003-ISAWHA-	Decision on approval
Sad	2/2017 from 27.1.2017.	of construction
Underground line for premise No. 3 in Novaka	ROP-NSD-9752-ISAW-	Decision on approval
Radonjića street 27, Novi Sad	1/2017 from 20.4.2017.	of construction
Underground 0,4 kV line for the facility in Koči Ivana street nn, Novi Sad	ROP-NSD-14820-ISAW- 1/2017 from 31.5.2017.	Decision on approval of construction
Underground 0,4kV network for the facility in Branka	ROP-NSD-5535-ISAW-	Decision on approval
Bajića street 24-26, Novi Sad	1/2017 from 10.3.2017.	of construction
Underground 0,4 kV network for facility in Novosadski put 70, Veternik	ROP-NSD-31275-ISAW- 1/2017 from 27.10.2017.	Decision on approval of construction
Underground 20 kV lines between SS "FKL 1", SS "P.	ROP-TEM-38156-ISAW-	Decision on approval
D. Petefi silos" and SS "Termovent SC", Temerin	1/2017 from 11.12.2017.	of construction
Underground 0,4 kV line for the facility in Petefi	ROP-TEM-17422-ISAW-	Decision on approval
Šandora 19, Temerin	1/2017 from 22.6.2017.	of construction
PMTS "Siplak", Bač	ROP-BAC-17291-ISAW- 2/2017 from 31.10.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility at the corner of Novosadski put and Tri bagrema street, Veternik	ROP-NSD-15682-ISAW- 1/2017 from 7.6.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility in Nova nn, Novi	ROP-NSD-14227-ISAWHA-	Decision on approval
Sad	2/2017 from 23.6.2017.	of construction
Underground 0,4 kV line for the facility in Đorđa Bešlina	ROP-NSD-19078-ISAW-	Decision on approval
nn, Kovilj	3/2017 from 3.8.2017.	of construction
Underground 20 kV line from SS "Ortopedija" to the	ROP-NSD-24108-ISAW-	Decision on approval
existing 10kV tap "Zagrebačka", Novi Sad	1/2017 from 4.8.2017.	of construction
Underground 20 kV network for SS "Stadion", Bačka	ROP-BAP-13054-ISAW-	Decision on approval
Palanka	1/2017 from 18.5.2017.	of construction
Underground 0,4 kV lines for the facility in Bulevar	ROP-NSD-33286-ISAW-	Decision on approval
Oslobođenja 27, Novi Sad	1/2017 from 9.11.2017.	of construction
Underground 20 kV line from SS "Privrednikova 3" to SS "Unija papir servis", Novi Sad	ROP-NSD-29010-ISAW- 1/2017 from 26.9.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility in Janka	ROP-NSD-32184-ISAW-	Decision on approval
Čmelika 33, Novi Sad	1/2017 from 26.10.2017.	of construction
Underground 0,4 kV lines for the facility in Mitropolita Stanimirovića street 152, Sremski Karlovci	ROP-SKA-30346-ISAW- 1/2017 from 6.10.2017.	Decision on approval of construction
SS "Njive Futog" with MV and LV network, Futog	ROP-NSD-30882-ISAW- 1/2017 from 12.10.2017.	Decision on approval of construction



Underground 0,4 kV line for the facility in Kopernikova 1, 3 and 5, Novi Sad	ROP-NSD-23265-ISAW- 1/2017 from 3.8.2017.	Decision on approval of construction
Underground LV network in Nova 12, Novi Sad	ROP-NSD-28134-ISAW- 1/2017 from 18.09.2017.	Decision on approval of construction
Underground 0,4 kV line in Zlatarevićeva street No. 32, Petrovaradin	ROP-NSD-31431-ISAW- 1/2017 from 17.10.2017.	Decision on approval of construction
SS "PUB 2" with associated 20 and 0,4 kV lines, Novi	ROP-NSD-17072-ISAW- 1/2017 from 21.6 2017	Decision on approval
SS "Privrednikova 4" with MV and LV lines, Novi Sad	ROP-NSD-20608-ISAWHA- 2/2017 from 19 7 2017	Decision on approval
Underground 0,4kV lines for the facility in Đakona Avakuma nn, Novi Sad	ROP-NSD-32978-ISAW- 1/2017 from 6 11 2017	Decision on approval
SS "Mornarska 3" with associated MV and LV network, Novi Sad	ROP-NSD-32671-ISAW- 1/2017 from 6.11.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility in Studenička 15. Novi Sad	ROP-NSD-37361-ISAW- 1/2017 from 7.12.2107.	Decision on approval of construction
Underground 0.4 kV linr for the facility on parcel No. 1955/1 C.M. Rumenka, Rumenka	ROP-NSD-35485-ISAW- 1/2017 from 1.12.2017.	Decision on approval of construction
Underground 20 kV line for SS "Karin Komerc MD", Veternik	ROP-NSD-17762-ISAWHA- 3/2017 from 30.8.2017.	Decision on approval of construction
SS "Branka Ćopića" with MV and LV network, Novi Sad	ROP-NSD-34487-ISAW- 1/2017 from 15.11.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility in Patrijarha Raiačića 34. Petrovaradin	ROP-NSD-21200-ISAW- 1/2017 from 20.7.2017.	Decision on approval of construction
Underground 20 kV line for SS "Gradilište NEPI", Novi Sad	ROP-NSD-20481-ISAW- 1/2017 from 13.7.2017.	Decision on approval of construction
Underground 20kV line between SS "Ilije Garašanina" and SS "Vodovod", Novi Sad	ROP-NSD-11048-ISAW- 1/2017 from 28.4.2017.	Decision on approval of construction
Underground 0,4 kV lines for the facility Bate Brkića nn, Novi Sad	ROP-NSD-35731-ISAW- 1/2017 from 21.11.2017.	Decision on approval of construction
PMTS "Palih boraca" with MV and LV network, Gardinovci	ROP-TIT-31579-ISAW- 1/2017 from 16.10.2017.	Decision on approval of construction
Construction of 20 and 0,4 kV network in Dositejeva street and the part of the street Zoltana Čuke, Bečej	ROP-BEC-37212-ISAW- 1/2017 from 30.11.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility in Okrugićeva 3, Petrovaradin	ROP-NSD-23608-ISAW- 1/2017 from 10.8.2017.	Decision on approval of construction
Underground 0,4 kV line in Carice Milice street, Futog	ROP-NSD-33269-ISAW- 1/2017 from 13.11.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility in Radnička street 19, Novi Sad	ROP-NSD-33293-ISAW- 1/2017 from 4.11.2017.	Decision on approval of construction
Underground LV network in the part of the street Petefi Šandora, Temerin	ROP-TEM-36192-ISAW- 1/2017 from 22.11.2017.	Decision on approval of construction
Underground 0,4 kV network for premises in Bulevar Oslobođenja 131, Novi Sad	ROP-NSD-27274-ISAW- 3/2017 from 23.10.2017.	Decision on approval of construction
Underground 0,4 kV lines for the facility in Đorđa Zličića 32, Novi Sad	ROP-NSD-29110-ISAW- 3/2017 from 22.12.2017.	Decision on approval of construction
Underground 0,4 kV network for the facility in Vase Pelagića 6 and 8, Novi Sad	ROP-NSD-36151-ISAW- 1/2017 from 24.11.2017.	Decision on approval of construction
Underground 0,4 kV line for the facility in Prešernova 13a, Novi Sad	ROP-NSD-35782-ISAWHA- 2/2017 from 28.11.2017.	Decision on approval of construction
Underground 0,4 kV lines for a business facility in Omladinska nn, Beočin	ROP-BEO-27000-ISAW- 1/2017 from 11.9.2017.	Decision on approval of construction



Underground 20 kV lines for SS "Žeželj", Futog	ROP-NSD-28422-ISAWHA- 2/2017 from 26.9.2017.		Decision on approval of construction
Underground 0,4 kV line for the facility in Kisački put nn, Rumenka	ROP-NSD-37755-ISAWHA- 1/2017 from 29.12.2017.		Decision on approval of construction
Underground 20 kV lines for SS "Sani – hem", Novi Sad	ROP-NSD-36443-ISAW- 1/2017 from 28.11.2017.		Decision on approval of construction
Underground 20 kV line for SS "Gradilište NEPI 2", Novi Sad	ROP-NSD-20481-ISAW- 1/2017 from 13.7.2017.		Decision on approval of construction
PMTS "Centar" with HV and LV network, Begeč	ROP-NSD-35628-ISAW- 1/2017 from 15.11.2017.		Decision on approval of construction
Underground 0,4 kV network for the facility at the corner of Jug Bogdana street and Tekelijina street, Novi Sad	ROP-NSD-39495-ISAW- 1/2017 from 25.12.2017.		Decision on approval of construction
Indoor substation (ISS) "Sremska 2" Novi Sad	ROP-NSD-20622-ISAWHA- 4/2017 from 30.8.2017		Decision on approval of construction
Underground 20 and 0,4 kV lines, on C.P. No. 908/1 C.M. Novi Sad II, Novi Sad	ROP-NSD-7081-ISAWHA- 6/2017 from 23.8.2017.		Decision on approval of construction
Underground 20 kV lines for SS "TERMONA", Čelarevo	ROP-BAP-8771-ISAW- 2/2017 from 5.12.2017		Decision on approval of construction
ED SREMSKA MITROVICA			
LV overhead netvork 0,4kV in the street Branka Radičevića and Vuka Karadžića in Molovin	ROP-SID-2915-ISAW- 1/2017 14.02.2017.		Decision on approval for execution of works
PMTS 20/0,4kV "Teodora Bekića", CL 20kV and CL 0,4kV – S. Mitrovica	ROP-SMI-8653-ISAW- 1/2017 10.04.2017.		Decision on approval for execution of works
LV overhead netvork 0,4kV in Cvetna street – S. Mitrovica	ROP-SMI-8950-ISAW- 1/2017 11.04.2017.		Decision on approval for execution of works
Cable line 20kV from coupling at PCSS ""Pontonski most" to PCSS ""Benzinska stanica" – S. Mitrovica	ROP-SMI-10209-ISAW- 1/2017 20.04.2017.		Decision on approval for execution of works
PMTS 10(20)/0,4 kV "Bosutska" in 10. marta street in Bosut	ROP-SMI-11494-ISAW- 1/2017 08.05.2017.		Decision on approval for execution of works
LV overhead netvork 0,4kV in 1. Novembra street in Sremska Mitrovica (from No. 188 to the end of the street)	ROP-SMI-12073-ISAW- 1/2017 11.05.2017.		Decision on approval for execution of works
Cable line 20kV from PCSS 20/0,4kV '"G-2" to PCSS 20/0,4kV "Đure Kiša" in Šid	ROP-SID-12844-ISAW- 1/2017 15.05.2017.		Decision on approval for execution of works
LV overhead netvork 0,4kV in Petra Runjanina – S. Mitrovica	ROP-SMI-17663-ISAW- 1/2017 23.06.2017.		Decision on approval for execution of works
PMTS 10(20)/0,4 kV "Kralja Petra I" and MB 10(20) and 0,4 kV in Erdevik	ROP-SID-17771-ISAW- 1/2017 27.06.2017.		Decision on approval for execution of works
PMTS 20/0,4 kV "CS Ostić" with overhead connection line 20 kV near Mandelos	ROP-SMI-8449-ISAW- 6/2017 26.05.2017.		Decision on approval for execution of works
MB 20 and 0,4 kV in the part of Fruškogorska street in Kukujevci	ROP-SID-18920-ISAW- 1/2017 04.07.2017.		Decision on approval for execution of works
PMTS 20/0,4 kV "Vinarija Milošević" with connection cable line 20 kV in Veliki Radnici	ROP-SMI-7721-ISAW- 2/2017 26.06.2017.		Decision on approval for execution of works
Reconstruction of LV overhead network 0,4 kV in the streets: Karađorđeva, Cara Lazara, Vase Stajića i Svetog Save in Šid	ROP-SID-23102-ISAW- 1/2017 03.08.2017.		Decision on approval for execution of works
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Double CL 0,4 kV from cable couplings 0,4 kV to CCB and MC on residential office building in Svetog Dimitrija street No. 19. ("GIP" d.o.o.) – S. Mitrovica	ROP-SMI-32447-ISAW- 1/2017 25.10.2017.	Decision on approval for execution of works
Cable lines 0,4 kV to CCB and MC on residential building in Timočke divizije street – S. Mitrovica	ROP-SMI-30888-ISAW- 1/2017 13.10.2017.	Decision on approval for execution of works
CL 0,4 kV from PCSS "Obdanište" to CCB EV-1P and CCB EV-2P on the facility "A" and to CCB EV-2P on the facility "C" in Kralja petra I street No. 75. ("Anras Investment" d.o.o.) – S. Mitrovica	ROP-SMI-12377-ISAW- 1/2017 12.05.2017.	Decision on approval for execution of works
Double CL 0,4 kV from couplings on cable feeder from PCSS "Žarko Zrenjanin" to two CCB EV-1P with metering cabinet type POMM-4 on SABP 600 for connection of residential building in Cvetna street No. 19. – S. Mitrovica	ROP-SMI-11497-ISAW- 1/2017 08.05.2017.	Decision on approval for execution of works
CL 0,4 kV from SS "Branka Radičevića" to ССВ и МС on residential building in Branko Radičević street ("Boracay" d.o.o.) – S. Mitrovica	ROP-SMI-2888-ISAW- 1/2017 20.02.2017.	Decision on approval for execution of works
CL 0,4 kV from PCSS "Parobrodska" to CCB and MC on residential office building, unit between streets Puškinova, Promenada and Parobrodska ("Gradeks" d.o.o.) – S. Mitrovica	ROP-SMI-244-ISAW- 1/2017 16.01.2017.	Decision on approval for execution of works
CL 0,4 kV from future CCB EV-2P on facade of residential building in Jupiterova street No. 83. to CCB and MC on the facility "A" and to CCB and MC on the facility "B" in Cvetna street No. 13 and 15 ("Primip" d.o.o. SM) S. Mitrovica	ROP-SMI-242-ISAW- 1/2017 16.01.2017.	Decision on approval for execution of works
Cable line 20kV from WMSS 20/0,4kV "Mokranjčeva" to PCSS 20/0,4kV "6. decembar" – Šid	ROP-SID-37823-ISAW- 1/2017 06.12.2017.	Decision on approval for execution of works
Cable line 0,4 kV from PMTS "Branka Erića" to CCB and metering cabinet type POMM in Branka Erića street – Šid	ROP-SID-37033-ISAW- 1/2017 04.12.2017.	Decision on approval for execution of works
PMTS 20/0,4 kV "Planeta" and connection CL 20 kV in Fruškogorska street and 20. oktobra street – Šid	ROP-SID-34553-ISAW- 1/2017 08.11.2017.	Decision on approval for execution of works
LV unit in PCSS 10(20)/0,4 kV "Plastika Marković" and connection cable line 20 kV – S. Mitrovica	ROP-SMI-32796-ISAW- 2/2017 27.11.2017.	Decision on approval for execution of works
PMTS 20(10)/0,4 kV "Mile Palić" with connection cable line 20 kV in Višnjevačka street nn – S. Mitrovica	ROP-SMI-29148-ISAW- 1/2017 27.09.2017.	Decision on approval for execution of works
PMTS 20/0,4 kV "Bunari jug" with cable line 20 kV near Grgurevac	ROP-SMI-33422-ISAW- 1/2017 31.10.2017.	Decision on approval for execution of works
PMTS 20/0,4 kV "Bunari sever" with cable line 20 kV near Grgurevac	ROP-SMI-33442-ISAW- 1/2017 31.10.2017.	Decision on approval for execution of works
PMTS 20(10)/0,4 kV "Zem-zadruga" with double CL 20 kV in S. Mitrovica	ROP-SMI-26062-ISAW- 1/2017 04.09.2017.	Decision on approval for execution of works
PMTS 20/0,4 kV "RBS Vip i Telenor" with connection 20kV cable line in C.M. Batrovci	ROP-SID-24129-ISAW- 1/2017 14.08.2017.	Decision on approval for execution of works
Cable line 20kV from PCSS "Sutjeska" to WMSS 20/0,4 kV "Maksima Gorkog" in Sremska Mitrovica	ROP-SMI-24024-ISAW- 1/2017 11.08.2017.	Decision on approval for execution of works
LV overhead network 0,4 kV in Cerska street in Laćarak	ROP-SMI-23088-ISAW- 1/2017 04.08.2017.	Decision on approval for execution of works



CL 0,4 kV from cable couplings in Sv. Dimitrija street No. 2. to CCB and metering cabinet type POMM on the facade of the building in Sv. Dimitrija street No. 4 (RF PIO and RF ZO) – S. Mitrovica	ROP-SMI-39403-ISAW- 1/2017 26.12.2017.	Decision on approval for execution of works
ED RUMA		
PMTS "Baranjska" with cable line 20 kV in Maradik	ROP-IND-3186-ISAW- 2/2017 21.05.2017	Decision on execution of works pursuant to Article 145
PMTS "Kalakača" with 20 kV and 1 kV cable line in Krčedin	ROP-IND-32948-CPI- 1/2017 30.10.2017.	Construction permit
PMTS "Prigrevica" with connection CL 20 kV in Novi Karlovci	ROP-IND-12667-CPI- 2/2017 23.10.2017	Construction permit
PMTS "Sovljak" and connection CL 20 kV in Velika Remeta	ROP-IRI-34226-ISAW- 1/2017 07.11.2017	Decision pursuant to Article 145
PMTS "Partizanska" with LV distribution system in Deč	ROP-PEC-29542-ISAW- 2/2017 od 22.02.2017	Decision pursuant to Article 145
PMTS "Šimanovačka 2" in Sremski Mihaljevci	ROP-PEC-12397-CPI- 4/2017 01.03.2017	Decision pursuant to Article 145
CL 20 kV from WMSS "Vodovod" to the pole TL for Vrdnik in Ruma	ROP-RUM-24103-ISAW- 1/2017 OD 14.08.2017	Decision pursuant to Article 145
Double CL 20 kV and MV installation in WMSS "Asfaltna baza nova" in Ruma	ROP-RUM-21663-ISAW- 2/2017 from 06.04.2017	Decision pursuant to Article 145
CSS 20/0,4 kV "Teksas" with MV and LV calble line in Ruma	ROP-RUM-39710-ISAW- 1/2017 FROM 28.12.2017	Decision pursuant to Article 145
Connection CL 1 kV for feeding of customers in region SS "Ciglana" in Ruma	ROP-RUM-19908-ISAW- 1/2017 from 12.07.2017	Decision pursuant to Article 145
PMTS "Jezero" and connection CL 20 kV in Pavlovci	ROP-RUM-19317-ISAW- 1/2017 from 06.07.2017.	Decision pursuant to Article 145
PMTS "Mujina" with connection CL 20 kV line in D. Petrovci	ROP-RUM-1829-ISAW- 1/2017 from 01.02.2017	Decision pursuant to Article 145
PMTS "Stejanovački put" and LV cable line in Ruma	ROP-RUM-29576-ISAWHA- 2/2017 from 16.10.2017	Decision pursuant to Article 145
PMTS "Šabački put" and connection CL 20 kV in Klenak	ROP-RUM-6185-ISAW- 1/2017 from 20.03.2017	Decision pursuant to Article 145
1 kV cable line from SS PMTS M. Pandurovića for Stojića guvno in Belegiš	ROP-SPZ-33472-ISAW- 2/2017 FROM 14.06.2017	Decision pursuant to Article 145
Cable line 20 kV and PMTS "P. Čodanovića" in Stari Banovci	ROP-SPZ-33467-ISAW- 2/2017 from 05.07.2017	Decision pursuant to Article 145
CL 20 kV from PMTS "Boris Kidrič" to SS "Gatarić" in Krnješevci	ROP-SPZ-24031-ISAW- 2/2017 from 23.03.2017	Decision pursuant to Article 145
Cable line 20 kV from PMTS "Pionirska" – PMTS "Hilandarska" – PCSS "Karađorđeva" Nova Pazova	ROP-SPZ-15662-ISAW- 2/2017 from 20.032017.	Construction permit
Cable line 1 kV from SS "Dom zdravlja" for the building in Cara Dušana street 23 in N. Pazova	ROP-SPZ-15014-ISAW- 2/2017 from 20.03.2017	Decision pursuant to Article 145
PCSS 20/0,4 kV "Centar" with MV and LV distribution system in Surduk	ROP-SPZ-26096-ISAW- 2/2017 from 23.11.2017	Decision pursuant to Article 145
PCSS 20/0,4 kV "D Truck plus" with double CL 20 kV in Krnješevci	ROP-SPZ-19249-ISAWHA- 3/2017 from 20.10.2017	Decision pursuant to Article 145
LV cable line from PCSS "Park" for Vladimira Hurbana street in St. Pazova	ROP-SPZ-30465-ISAW- 4/2017 from 02.10.2017	Decision pursuant to Article 145
PMTS "Centar nova" with MV and NN distribution system in Krnješevci	ROP-SPZ-23216-ISAW- 2/2017 from 23.11.2017	Decision pursuant to Article 145
ED PANČEVO		
Decision on approval for execution of works (Cabling of PMTS "Dolovo 18" distribution area)	ROP-PAN-453-ISAW- 1/2017 13.1.2017	
Decision on approval for execution of works (HV cable Pančevo 3 – SS Školski centar)	ROP-PAN-207-ISAW- 1/2017 9.1.2017	
Notice of commencement of works(PCSS "Gavrila Principa")	ROP-VRS-855-WA-1/2017 19.1.2017	Completed



Notice of commencement of works(PCSS "Sterijina 2")	ROP-VRS-856-WA-1/2017 19.1.2017	Completed
Location conditions(LV pole in Sterijina street in Pančevo)	ROP-PAN-34152-LOC- 1/2016 4.1.2017	Completed
Location conditions(PMTS "Ohridska" in Pančevo)	ROP-PAN-34925-LOC- 1/2016 19.1.2017	
Decision on approval for execution of works (Cabling the part of Dimitrije Tucović street)	ROP-PAN-1099-ISAW- 1/2017 23 1 2017	
Decision on approval for execution of works (HV cable for the jail)	ROP-PAN-783-ISAW- 1/2017 18 1 2017	 Completed
Location conditions (CSS "Miletićeva" in Vršac)"	ROP-VRS-34930-LOCH- 2/2017 31 1 2017	-
Decision on approval for execution of works (HV and I V cable in Baniiska street in Pančevo)	ROP-PAN-1882-ISAW- 1/2017 2 2 2017	Completed
Location conditions (HV cable for SS "Dolovo – livade")	ROP-PAN-34143-LOCH- 1/2016 19 1 2017	Completed
Notice of commencement of works (HV cable Pančevo 3 – Školski centar)	ROP-PAN-2628-WA-1/2017 8 2 2017	
Location conditions (HV and LV cable in Deliblatska	ROP-ALI-34926-LOC- 1/2016 13 2 2017	
Notice of commencement of works (PCSS "Zapadna zona" Plandište)	ROP-PLA-3198-WA-1/2017	
Location conditions (CCSS "Vuka Karadžića" in Bela	ROP-BCR-1101-LOC- 1/2017 20 2 2017	 Completed
Location conditions (CCSS "Proleterska" in Bela Crkva)	ROP-BCR-1100-LOC- 1/2017 20 2 2017	 Completed
Notice of commencement of works (Cabling of PMTS Dolovo 18" distribution area)	ROP-PAN-3945-WA-1/2017 24.2 2017	
Notice of commencement of works (Cabling of the part of the Dimitrija Tucovića street)	ROP-PAN-3950-WA-1/2017 24.2 2017	
Notice of commencement of works (Cable from PMTS Vlasinska")	ROP-PAN-3946-WA-1/2017 24.2 2017	
Notice of commencement of works (Cables in Banijska street)	ROP-PAN-3947-WA-1/2017 24.2 2017	 Completed
Decision on approval for execution of works (LV pole on Sterijina street in Pančevo)	ROP-PAN-4498-ISAW- 1/2017 1 3 2017	
Decision on approval for execution of works (Connection in Čumićeva)	ROP-PAN-4504-ISAW- 1/2017 2 3 2017	 Completed
Decision on approval for execution of works	ROP-PAN-4500-ISAW- 1/2017 2 3 2017	 Completed
Decision on approval for execution of works (PCSS Banatski Karlovac 16")	ROP-ALI-4506-ISAW- 1/2017 9 3 2017	-
Decision on approval for execution of works (CSS	ROP-KOA-4913-ISAW- 1/2017 9 3 2017	Completed
Location conditions (HV cable in Debeljača)	ROP-KOA-2568-LOC- 1/2017 9 3 2017	
Location conditions (HV cable in Padina)	ROP-KOA-2567-LOC- 1/2017 9 3 2017	
Notice of commencement of works (HV cable for the iail)	ROP-PAN-7594-WA-1/2017 27 3 2017	Completed
Notice of commencement of works (LV pole on Sterijina street in Pančevo)		Completed
Notice of commencement of works (Connection in Čumićeva)		Completed
Notice of commencement of works (Connection in Svetog Save)		Completed
Location conditions (LV cable from SS "Tesla 9" in Pančevo)	ROP-PAN-8527-LOC- 1/2017 24.4.2017	
Location conditions (HV cable in Bavaništanski put)	ROP-PAN-8525-LOC- 1/2017 20.4.2017	



Decision on approval for execution of works (PMTS Crona stanica – Opoyo 1")	ROP-OPO-4506-ISAW- 1/2017 24 4 2017	Completed
Notice of commencement of works (HV cable for SS	ROP-PAN-11132-WA-	Completed
	ROP-PAN-8097-LOC-	
Location conditions (LV cable form PMTS "BNS 22")	1/2017 28.4.2017	
Notice of commencement of works (PCSS "B. karlovac 16")	ROP-ALI-12294-WA-1/2017 9.5.2017	
Decision on approval for execution of works (CSS	ROP-PAN-12279-ISAW-	Completed
"Žarka Zrenjanina 2")	1/2017 10.5.2017	
Location conditions (7 Jula in Pančevo)	ROP-PAN-9684-LOC- 1/2017 8.5.2017	Completed
Notice of commencement of works (CSS, Crenzia 14")	ROP-KOA-11130-WA-	Completed
	1/2017 28.4.2017	Completed
Notice of commencement of works (PMTS "Crpna	ROP-OPO-12837-WA-	Completed
Stanica – Opovo T)	1/2017 11.5.2017	· · · · · · · · · · · · · · · · · · ·
Severna zona 2")	1/2017 11 5 2017	
Decision on approval for execution of works (PMTS	ROP-PAN-12281-ISAW-	
"Ohridska")	1/2017 12.5.2017	
Notice of commencement of works (CSS "Žarka	ROP-PAN-13735-WA-	Os mulata d
Zrenjanina 2")	1/2017 19.5.2017	Completed
Location conditions (LV network in Stadionska street in	ROP-BCR-12974-LOC-	
Bela Crkva)	1/2017 25.5.2017	
Decision on approval for execution of works (PCSS	ROP-PAN-7604-ISAW-	Completed
"Žarka Fogaraša")	8/2017 12.5.2017	Completed
Decision on approval for execution of works (PCSS	ROP-PAN-13267-ISAW-	
"Sterijina")	1/2017 19.5.2017	
Notice of commencement of works (PCSS "Sterijina")	ROP-PAN-15807-WA- 1/2017 5.6.2017	
Notice of commencement of works (PCSS "Žarka	ROP-PAN-15806-WA-	Works in progress
Fogaraša")	1/2017 5.6.2017	
Location conditions (HV cable in Stevana Supljikca	ROP-PAN-12976-LOC-	Completed
street)	1/2017 2.6.2017	
Location conditions (LV cable for Misdemeanor Court)	ROP-PAN-8965-LOCH- 2/2017 7.6.2017	Completed
Location conditions (HV cable PCSS "Kotež 19" –	ROP-PAN-12650-LOCH-	
PCSS "Kotež 20")	2/2017 30.5.2017	Completed
Location conditions (DMTS, orang stanios Onovo 2")	ROP-OPO-13719-LOCH-	
	1/2017 12.6.2017	
Location conditions (PMTS, Dobrica 7")	ROP-ALI-13505-LOC-	Completed
	1/2017 15.6.2017	Completed
Location conditions (LV cable from PCSS "Streliste	ROP-PAN-15814-LOC-	Completed
27)	1/2017 19.6.2017	
Location conditions (PMTS "Čenta 13")	1/2017 30.6.2017	
Leastion conditions (H)/ coble in Pole (r/a/a)	ROP-BCR-15809-LOC-	
	1/2017 30.6.2017	
Location conditions (LV cable from SS "Nemanjina" in	ROP-PAN-19070-LOC-	
Pančevo)	1/2017 13.7.2017	
Location conditions (HV cable for Starčevo)	ROP-PAN-15811-LOC-	
	ROP-PAN-19079-LOC-	
Location conditions (HV cable Tesla 9 – Tesla 14)	1/2017 24 7 2017	
	ROP-BCR-17048-LOC-	
Location conditions (PCSS "Jovana Popovića 2")	1/2017 7.7.2017	
	ROP-PAN-11164-LOC-	
Location conditions (PCSS "Severna zona 3")	1/2017 10.5.2017	
Decision on approval for execution of works (LV in the	ROP-PAN-24273-ISAW-	Works in progress
settlement Zelengora)	8/2017 15.8.2017	



Decision on approval for execution of works (LV for Misdemeanor Court)	ROP-PAN-25385-ISAW- 1/2017 25.8.2017	Completed
Decision on approval for execution of works (HV cable	ROP-PAN-26764-ISAW-	
Kotož 10. Kotož 20)	1/2017 5 0 2017	Completed
$\frac{1}{10000000000000000000000000000000000$	1/2017 5.9.2017	
Decision on approval for execution of works (HV cable	ROP-PAN-26/65-ISAW-	Completed
S. Supljikca – Tesla 13)	1/2017 5.9.2017	
Decision on approval for execution of works (HV cable	ROP-VRS-26765-ISAW-	Completed
for tap Margitska – Čokolada)	1/2017 20.9.2017	Completed
Decision on approval for execution of works (HH from	ROP-PAN-28777-ISAW-	
PCSS Strališta 27")	1/2017 21 0 2017	Completed
Location conditions (PMTS "Vladimirovac 13")	RUP-ALI-20770-LUC-	
	1/2017 26.9.2017	
Decision on approval for execution of works (LV cable	ROP-PAN-26104-ISAW-	
from PMTS "BNS 22")	1/2017 25.8.2017	
Notice of commencement of works (LV cable from	ROP-PAN-28919-WA-	
PMTS BNS 22")	1/2017 21 9 2017	
Decision on approval for execution of works (IV cable		
for building L Corečening 9)	1/2017 25 9 2017	
	1/2017 23.0.2017	
Notice of commencement of works (LV cable for	ROP-PAN-28924-WA-	
building I. Garašanina 8)	1/2017 21.9.2017	
Notice of commencement of works (HV cable Kotež 19	ROP-PAN-28923-WA-	Completed
– Kotež 20)	1/2017 21.9.2017	Completed
Notice of commencement of works (IV cable for	ROP-PAN-28924-WA-	
huilding L Garačanina 8)	1/2017 21 0 2017	
Decision on approval for execution of works (LIV coble	DOD DAN 26765 10 AM	
	ROP-PAN-26765-ISAVV-	Completed
from SS S. Supljikca – SS Tesla 13)	1/2017 5.9.2017	
Notice of commencement of works (HV cable from SS	ROP-PAN-28921-WA-	Completed
S. Šupljikca – SS Tesla 13)	1/2017 21.9.2017	Completed
Decision on approval for execution of works (HV cable	ROP-KOA-30852-ISAW-	
in Padina)	1/2017 13 10 2017	
Decision on approval for execution of works (HV/ cable	ROP-KOA-30850-ISAW-	
in Debaliače)	1/2017 12 10 2017	
in Debeljaca)	1/2017 13.10.2017	
Location conditions (CSS_Sterijina" Pančevo)	ROP-PAN-27092-LOC-	
	1/2017 27.9.2017	
Decision on approval for execution of works (Cabling of	ROP-PAN-31660-ISAW-	Completed
7. jula street in Pančevo)	1/2017 16.10.2017	Completed
Decision on approval for execution of works (LV cables	ROP-PAN-33873-ISAW-	
from SS Nemaniina" in Pančevo)	1/2017 1 11 2017	
Logation conditions (LV naturals in Matiin Curses street	DOD DAN 20722 LOC	
	RUP-PAN-29733-LUC-	
In Starcevo)	1/2017 20.10.2017	
Location conditions (PCSS "Narodna Bašta" in	ROP-PAN-31658-LOC-	
Pančevo)	1/2017 6.11.2017	
Decision on approval for execution of works (HV cable	ROP-PAN-35443-ISAW-	
from PCSS "Tesla 9" to PCSS "Tesla 14")	1/2017 14.11.2017	
Decision on approval for execution of works (PCSS	ROP-VRS-36184-ISAW-	
Miletićeva" in Vršac)	1/2017 23 11 2017	
"Mileticeva in visac)		
Decision on approval for execution of works (CSS	RUP-PAIN-7604-ISAWHA-	Works in progress
"Zarka Fogarasa In Pancevo)	13/2017 23.11.2017	
Decision on approval for execution of works (LV	ROP-BCR-35444-ISAW-	
network in Stadionska street in Bela Crkva)	1/2017 28.11.2017	
Notice of commencement of works(CSS "Žarka	ROP-PAN-37833-WA-	
Fogaraša" in Pančevo)	1/2017 6.12.2017	vvorks in progress
	BOP-KOV-37835-LOC-	
Location conditions (LV for Kvržić in Kovin)		
	1/2017 12 12 2017	
Location conditions/LIV coble Dahaliata Collicata	1/2017 12.12.2017	
Location conditions(HV cable Debeljača – Sefkerin	1/2017 12.12.2017 ROP-OPO-36186-LOC-	
Location conditions(HV cable Debeljača – Sefkerin (Opovo))	1/2017 12.12.2017 ROP-OPO-36186-LOC- 1/2017 13.12.2017	
Location conditions(HV cable Debeljača – Sefkerin (Opovo))	1/2017 12.12.2017 ROP-OPO-36186-LOC- 1/2017 13.12.2017 ROP-PAN-36457-LOC-	
Location conditions(HV cable Debeljača – Sefkerin (Opovo)) Location conditions (PMTS "Omoljica 22")	1/2017 12.12.2017 ROP-OPO-36186-LOC- 1/2017 13.12.2017 ROP-PAN-36457-LOC- 1/2017 13.12.2017	
Location conditions(HV cable Debeljača – Sefkerin (Opovo)) Location conditions (PMTS "Omoljica 22") Decision on approval for execution of works (PCSS	1/2017 12.12.2017 ROP-OPO-36186-LOC- 1/2017 13.12.2017 ROP-PAN-36457-LOC- 1/2017 13.12.2017 ROP-BCR-37841-ISAW-	
Location conditions(HV cable Debeljača – Sefkerin (Opovo)) Location conditions (PMTS "Omoljica 22") Decision on approval for execution of works (PCSS "Jovana Popovića 2")	1/2017 12.12.2017 ROP-OPO-36186-LOC- 1/2017 13.12.2017 ROP-PAN-36457-LOC- 1/2017 13.12.2017 ROP-BCR-37841-ISAW- 1/2017 28.12.2017	



Location conditions (HV cable in Ivanovo)	ROP-PAN-36436-LOC- 1/2017 15.12.2017	
Location conditions (HV cable Debeljača – Sefkerin	ROP-KOA-36187-LOC-	
(Kovačica))	1/2017 19.12.2017	

2.2. Monitoring and Environmental Impact

Factors by which the DP Novi Sad influences the environment and which are not fully covered by the monitoring are:

- Electromagnetic fields
- Environmental noise
- Waste
- Ground and surface waters quality
- Soil quality

2.2.1. Electromagnetic Fields

During 2018, no measurements of the electric and magnetic fields were performed.

2.2.2. Environmental Noise

Noise measurements in the environment were not carried out in 2018.

2.2.3. Waste

Characterization, categorization and partial sale of waste in 2018 is given in Table 178.



Table 178												
DISTRIBUTION AREA NOVI SAD												
Generated types of waste in 2018												
							OPD ED				Total	
Š	RULEBOOK ON CATEGORIES, TESTING AND CLASSIFICATION OF WASTE Official Gazette RS No. 56/10 from 10 th August 2010	INDEX NUMBER	UNIT	SUBOTICA	SOMBOR	ZRENJANIN	NOVI SAD	SREMSKA MITROVICA	RUMA	PANČEVO	Total Distribution Area Novi Sad	NOTE
						AMO	UNTS					
1.	Waste toner for printing other than that listed in 08 03 17	08 03 18	t	0,238	0,000	0,300	0,000	0,060	0,106	0,060	0,764	
				0,330	0,000	0,760	10,120	0,000	0,000	0,000	11,210	Transformer oil
2.	Other oils for insulation and heat transfer	13 03 10*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste kits for the detection of PCBs - uncontaminated
3.	Other emulsions	13 08 02*	t	26,560	0,000	138,700	343,780	0,000	0,000	2,960	512,000	Oily water from oily pits
4.	Packaging containing remains of hazardous substances or contaminated with hazardous substances	15 01 10*	t	0,024	0,000	1,300	0,140	0,000	0,000	0,000	1,464	Waste plastic bottles used for testing of transformer oil in the workshops
5.	Absorbents, filter materials(including the oil filters which are not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	0,000	0,000	0,000	0,160	0,000	0,000	0,000	0,160	Waste absorption resources with oil and heavy fuel oil, oily gravel
6.	Waste tires	16 01 03	t	0,235	0,940	0,000	0,000	0,000	0,000	0,280	1,455	Waste tires
7.	Waste vehicles that do not contain liquids and other hazardous substances	16 01 06	t	0,000	0,000	22,83	0,000	0,000	0,000	0,000	22,830	
8.	Oil filters	16 01 07*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	
9.	Ferrous metals	16 01 17	t	13,235	0,000	7,600	30,800	4,080	0,000	7,997	63,712	Waste iron



10.	Transformers and condensers containing PCB	16 02 09*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste PCB transformers
11.	Equipment containing hazardous components other than specifiedin16 02 09 to 16 02 12	16 02 13*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Condensers batteries
				3,480	0,000	4,170	0,000	0,000	0,000	0,000	7,650	Waste meters
				0,300	0,000	0,000	0,000	0,000	0,000	0,000	0,300	Waste transformers not containing oils
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Electrical devices
12	Rejected equipment other than specified in	16 02 14	t	2,610	0,000	0,000	0,000	0,000	0,000	0,000	2,610	Measuring cabinets
	16 02 09 to 16 02 13	10 02 11		0,330	0,000	0,000	0,000	0,000	0,000	0,000	0,330	Measuring devices (ammeters, voltmeters)
				0,220	0,000	0,000	0,000	0,000	0,000	0,000	0,220	Disconnector 20 kV
				0,450	0,000	0,000	0,000	0,000	0,000	0,000	0,450	LV and HV units
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste HV and LV fuse
13.	Lead batteries	16 06 01*	t	0,000	0,000	0,040	0,000	0,000	0,000	0,000	0,040	Batteries
14.	Waste containing oil	16 07 08*	t	0,000	0,000	0,010	0,000	0,000	0,000	0,000	0,010	Waste kits for testing transformer oil on PCB
15.	Oily water	16 10 01		0,000	30,000	0,000	110,940	0,000	0,000	2,960	143,900	Oily water from oily pit
16.	Concrete	17 01 01	t	74,358	39,900	144,400	84,180	5,740	63,180	76,960	488,718	Concrete poles
17	Wood	17 02 01	+	5,480	33,080	1,300	8,520	2,540	0,820	0,000	51,740	Wooden poles - poles
17.		17 02 01	Ľ	0,000	0,000	0,000	0,000	0,000	0,000	25,161	25,161	Waste mixed wood
18.	Plastic	17 02 03	t	0,000	1,380	0,000	0,340	0,000	0,000	0,080	1,800	
19.	Glass, plastic and wood containing hazardous substances or contaminated by dangerous substances	17 02 04*	t	327,020	12,800	3,200	0,000	0,000	0,000	0,000	343,020	Wooden poles with impregnation
20	Conner bronze brass	17 04 01	+	0,000	0,000	1,404	0,000	0,000	0,092	0,000	1,496	Waste and residues of copper and brass
20.		17 04 01	ſ	0,150	0,000	0,000	0,31	0,000	0,000	0,000	0,460	Waste copper



				1,938	4,04	0,000	0,38	0,05	2,072	9,365	17,845	Waste copper cables
21.	Aluminum	17 04 02	t	0,000	0,000	2,000	0,000	0,000	0,000	0,000	2,000	Waste aluminum
				0,065	0,000	2,600	0,000	0,230	0,000	1,303	4,198	Waste aluminum cables
22.	Iron and steel	17 04 05	t	0,000	4,860	0,000	30,800	0,000	20,503	0,000	56,163	Waste pieces of equipment TC
23.	Mixed metals	17 04 07	t	4,479	9,500	0,000	6,340	1,860	2,684	12,593	37,456	Al - Fe
24.	Cables containing oil, tar and other hazardous substances	17 04 10*	t	0,100	0,000	0,000	0,000	0,000	0,000	0,000	0,100	Oily cable
25.	Oily gravel	17 05 03*	t	0,000	0,000	0,010	145,300	0,000	0,000	0,000	145,310	
26.	Insulation materials other than specified in 17 06 01 and 17 06 03	17 06 04	t	45,577	22,800	20,800	1,920	5,060	8,015	12,955	117,127	Waste ceramics insulators
27.	Construction materials containing asbestos	17 06 05*	t	6,300	0,000	0,000	0,000	0,000	0,000	0,000	6,300	Waste asbestos panels
28.	Paper and card board	20 01 01	t	2,100	0,000	0,000	0,000	0,000	0,000	0,000	2,100	
29.	Glass	20 01 02	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	
30.	Fluorescent pipes and the mercury- containing waste	20 01 21*	t	0,100	0,000	0,000	0,000	0,000	0,000	0,000	0,100	Fluorescent pipes, light balls containing mercury
31.	Rejected electrical and electronic equipment other than that listed in 20 01 21 µ 20 01 23 containing hazardous components	20 01 35*	t	0,130	0,000	0,000	0,000	0,000	7,52	0,000	7,650	Waste computers, keyboards, monitors, electronic meters
32.	Bulky waste	20 03 07	t	2,440	0,000	0,000	0,000	0,000	0,000	0,000	2,440	Waste office furniture
33.	Waste soil and concrete contaminated with PCB oil	17 05 03*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	
34.	Ferrous metal	16 01 17	t	0,750	0,000	0,000	0,000	0,000	0,000	0,000	0,750	Switches
35.	Dangerous components removed from discarded equipment	16 02 15*	t	0,060	0,000	0,000	0,000	0,000	0,000	0,000	0,060	Lead seals



Table 179

2.2.4. Surface, Ground Waters and Soil Monitoring

Surface and groundwater monitoring, as well as soil monitoring in 2018, is shown in Table 179.

DISTRIBUTION AF	REA NOVI SAD - OI	PD ED SUBOTICA	l l			
THE RESULTS OF	PHYSICAL - CHEI	MICAL LAND TES	TS IN 2018			
LOCATION	TRANSFO	RMER STATION	SUBOTICA 1			
DATE OF SAMPLI	NG 10.11.201	/.	rechler 1960			
Measuring location	Sample	Measuring method	Unit of measurement	Test result	Limit value	Result indicating contamination
Measuring	Sample 1	VM 052	kg/mg	< 0,01	0,02	1
location 1	Sample 2	VM 052	kg/mg	< 0,01	0,02	1
	Sample 3	VM 052	kg/mg	< 0,01	0,02	1
Measuring	Sample 1	VM 052	kg/mg	0,02	0,02	1
location 2	Sample 2	VM 052	kg/mg	< 0,01	0,02	1
	Sample 3	VM 052	kg/mg	0,02	0,02	1
Measuring	Sample 1	VM 052	kg/mg	< 0,01	0,02	1
location 3	Sample 2	VM 052	kg/mg	< 0,01	0,02	1
	Sample 3	VM 052	kg/mg	< 0,01	0,02	1
Measuring	Sample 1	VM 052	kg/mg	0,07	0,02	1
location 4	Sample 2	VM 052	kg/mg	< 0,01	0,02	1
	Sample 3	VM 052	kg/mg	< 0,01	0,02	1
Measuring	Sample 1	VM 052	kg/mg	< 0,01	0,02	1
location 5	Sample 2	VM 052	kg/mg	< 0,01	0,02	1
	Sample 3	VM 052	kg/mg	< 0,01	0,02	1
Measuring location 6	Sample 1	VM 052	kg/mg	< 0,01	0,02	1
Measuring location 7	Sample 1	VM 052	kg/mg	< 0,01	0,02	1
Measuring location 8	Sample 1	VM 052	kg/mg	< 0,01	0,02	1
Measuring location 9	Sample 1	VM 052	kg/mg	0,80	0,02	1
Measuring location 10	Sample 1	VM 052	kg/mg	0,02	0,02	1
Measuring location 11	Sample 1	VM 052	kg/mg	< 0,01	0,02	1
Measuring location 12	Sample 1	VM 052	kg/mg	< 0,01	0,02	1
Measuring location 13	Sample 1	VM 052	kg/mg	0,07	0,02	1
Measuring location 14	Sample 1	VM 052	kg/mg	0,02	0,02	1

In the tested soil samples taken from the TS Subotica 1 site at 14 measuring points, the concentration of polychlorinated biphenyls (PCB) is lower than the value that could indicate significant contamination of the soil.

2.3. Monitoring of the Working Environment, Occupational Safety and Health Protection

Reports on occupational safety and health protection for 2018 include the following elements:

Working environment monitoring

- working environment noise measurement
- working environment electromagnetic fields
- working environment parameters



Safety

- training
- work injuries
- Health

2.3.1. Working Environment Monitoring

- Working environment noise measurement

The results of measurements of noise levels in 2018 are shown in Table 180.

Table 180

DISTRIBUTION AREA NOVI SAD							
Noise in working environment in	2017						
Branch	Unit	Recorded noise level in work re	ooms, (dB)	Permitted noise level in (dB (A))			
ED PANCEVO	Mea	surements were not performed in	2018				
ED RUMA	Measurements were not performed in 2018						
ED SREMSKA MITROVICA	Mea	surements were not performed in	2018				
ED SOMBOR	Measurements were not performed in 2018						
ED SUBOTICA	Measurements were not performed in 2018						
ED ZRENJANIN	Mea	surements were not performed in	2018				
	Underground lines preparation workshop	74 ± 2,20		85			
	Underground lines workshop	69 ± 2,10		85			
	Workshop 110 kV	75 ± 2,30		85			
ED NOVI SAD	Workshop of public lighting	76 ±2,30		85			
	Electrical repair workshop	69 ±2,10		85			
	Computing and Printing center	85					

Working environment electromagnetic fields

Electromagnetic fields measurements were not performed in 2018.

Working environment parameters

Working environment parameters are given in Table 181.



																		Table 181
DISTRIBUTION AREA NOVI SAI	D																	
Working environment paramete	ers in 201	8																
						led		s imit				Distribu	ition of u	unsatisfacto	ory para	meters		
Branch /Facility	Number of tested	Number of working	environments wnere parameters exceed permissible limits	Number of working	parameters are within permissible limits	Total number of record parameters		Number of parameter exceeding permissible I	901 <u>0</u>	1607		Harmful gasses		Noise		VIORADORS	Misero Alimeta	
	Number	Number	%	Number	%	Number	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
ED SUBOTICA			•					Measure	ments w	ere not	performe	ed in 2018						
ED SOMBOR								Measure	ments w	ere not	performe	ed in 2018						
ED ZRENJANIN								Measure	ments w	ere not	performe	ed in 2018						
ED NOVI SAD	100	0	0,00	100	100,00	100	0	0,00	0	0,00	12	12,00	6	6,00	0	0,00	100	100,00
ED RUMA								Measure	ments w	ere not	performe	ed in 2018						
ED S.MITROVICA								Measure	ments w	ere not	performe	ed in 2018						
ED PANCEVO								Measure	ments w	ere not	performe	ed in 2018						
HQ Winter period	195	0	0,00	195	100,00	3	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
HQ Summer period	201	0	0,00	201	100,00	3	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
TOTAL: DISTRIBUTION AREA NOVI SAD	496	0	0,00	496	100,00	106	0	0,00	0	0,00	12	12,00	6	6,00	0	0,00	100	100,00





Table 182

DISTRIBUTION AREA NO	VI SAD			
Chemical hazards in work	king environment fo	<u>r 2018</u>	-	•
Branch	Working place	Detected chemical compounds	Registered level of chemical hazards in workplaces. (mg/m3)	Emitted level of chemical identification ± measurement uncertainty (mg/ m3)
	Underground	benzene	0,01	3,25
	lines preparation	toluene	0,02	192
	workshop	n-hexane	0,16	72
	Underground lines workshop	vinyl chloride	0,10	7,77
	Workshop 110	ethyl acetate	0,02	1400
	kV	iso-propanol	0,16	980
		acetone	0,03	1210
		ethyl acetate	0,07	1400
	Workshop of	iso-propanol	0,06	980
	public lighting	acetone	0,01	1210
		xylene	0,08	221
	Electrical repair	benzene	0,15	3,25
	workshop	n-hexane	1,30	72
ED NOVI SAD	Printing center	styrene	0,18	215
	Overhead lines	toluene	0,01	192
	workshop	n-hexane	0,03	72
	SS Maintenance workshop	iso-propanol	0,01	980
	20/10/0,4 kV	acetone	0,02	1210
	Distribution warehouse	carbon monoxide	2,47	55
	IT 1	carbon monoxide	0,12	55
	Carbonation of chemical analysis of insulation oil	n-hexane	1,63	72
	Meters repair	ethyl acetate	0,01	1400
	workshop	iso-propanol	0,12	980
		acetone	0,02	1210

2.3.2. Occupational Safety

Training

Training data are given in table 183.



Table 183

Table 184

DISTRIBUTION	AREA	NOVI	SAD
--------------	------	------	-----

Trai	ning in 2018						
No	Branch	Number of	Planned f	or training	Trained		
NO	Branch	employees	Number	%	Number	%	
1.	ED Novi Sad	149	68	45,64	68	100,00	
2	ED Subotica	98	30	30,61	30	100,00	
3	ED Sombor	53	20	37,74	20	100,00	
4	ED Zrenjanin	73	21	28,77	21	100,00	
5	ED Ruma	54	12	22,22	12	100,00	
6	ED Sremska Mitrovica	22	10	45,45	10	100,00	
7	ED Pančevo	68	18	26.47	18	100,00	
8	HQ	207	20	9,66	20	100,00	
9	TOTAL: DISTRIBUTION AREA NOVI SAD	724	199	27,49	199	100,00	

Work injuries

The state of injuries in 2018 is presented in Table 184.

DISTRIBUTION AREA NOVI SAD									
Work injuries in 2018									
Branch /Engility	Employees	Injuries - number of employees ratio							
Branch /Facility	number	Light	Severe	Fatal	Total.	%			
ED Novi Sad	149	2	1	0	3	2,01			
ED Subotica	98	0	0	0	0	0,00			
ED Sombor	53	0	0	0	0	0,00			
ED Zrenjanin	73	0	0	0	0	0,00			
ED Ruma	54	1	0	0	1	1,85			
ED Sr. Mitrovica	22	0	0	0	0	0,00			
ED Pančevo	68	0	0	0	0	0,00			
HQ	207	3	0	0	3	1,45			
TOTAL: DISTRIBUTION AREA NOVI SAD	724	6	1	0	7	0.97			

2.3.3. Health

Periodical medical examinations of employees shown in Table 185 are carried out regularly for new workers and the employees working under special conditions.

										Та	ble 185
DISTRIBUTION AREA NOVI	SAD										
Work capability of employee	es in 2018	}									
		P	eriodical	examina	tion			Forv	vork		
Branch /Facility	oloyees Imber	Referred to examination		red to Examined/ ination Referred			Capable		tially able	Inca	pable
	Emp Dr	No.	%	No.	%	No.	%	No.	%	No.	%
ED Novi Sad	149	83	55,70	83	100,00	82	98,80	1	1,20	0	0,00
ED Subotica	98	58	59,18	58	100,00	58	100,00	0	0,00	0	0,00
ED Sombor	53	30	56,60	30	100,00	28	93,33	2	6,67	0	0,00
ED Zrenjanin	73	35	47,95	35	100,00	34	97,14	1	2,86	0	0,00
ED Ruma	54	25	46,30	25	100,00	22	88,00	3	12,00	0	0,00
ED Sr. Mitrovica	22	12	54,55	12	100,00	10	83,33	2	16,67	0	0,00
ED Pančevo	68	42	61,76	42	100,00	40	95,24	2	4,76	0	0,00
HQ	207	28	13,53	28	100,00	28	100,00	0	0,00	0	0,00
TOTAL:	724	313	43,23	313	100,00	302	96,49	11	3,51	0	0,00



DISTRIBUTION AREA						
NOVI SAD						

2.4. Public Complaints

Public complaints in 2018 are shown in Table 186.

Table 186

DISTRIBUTION AREA NOVI SA	AD					
Public application in 2018.						
Public complaint						
OBJECT	Objection (number and date) and from whom it has been delivered.		t Subject of the complaint		Measures taken	Note
OPD ED SUBOTICA	No public complaints					
OPD ED SOMBOR	No public complaints					
OPD ED ZRENJANIN	No public complaints					
OPD ED NOVI SAD	IV 02 501-1-15/2018 25.05.2018.	Th testi io	e analysis of the ing area and non- nizing radiation performed			KBTS Hajduk Veljkova 2 has not been put into operation, it is new. Some measures should be taken after commissioning.
OPD ED RUMA	No public complaints					
OPD ED S.MITROVICA	No public complaints					
OPD ED PANCEVO	No public complaints					
DP AREA NOVI SAD TOTAL	1					



3. DISTRIBUTION AREA KRALJEVO

Table 187 indicates the structure of all facilities and systems within DP Kraljevo.

·												Table 187
DISTRIBUTION	AREA I	KRALJE	VO									
Facilities and s	system i	n 2018							1			
		Ele	ctricity o	distribu	tion su	bstation	s		Distr	ibution netwo	rk length in kr	n
Branch	110/10 kV	110/20 kV	110/35 kV	110/x/z kV	35/10 kV	20/0,4 kV	10/0,4 kV	Total	Voltage level	Overhead	Cable	Total length
	1	1							110 kV	0,000	0,000	0,000
									35 kV	50,740	0,000	50,740
		FD	ARAND.		NC.				20 kV	21,850	31,035	52,885
		20							10 kV	440,390	0,740	441,130
									1,0 kV	1.559,120	45,550	1.604,670
			•	•	-				0,4 KV	0,000	0,000	0,000
l otal	0	0	0	2	5	/5	419	501	l otal:	2.072,100	77,325	2.149,425
									110 kV	0,000	0,000	0,000
									35 KV	123,988	38,430	162,418
			ED VAL	JEVO					20 kV	0,000	0,000	0,000
									10 kV	932,973	193,780	1.126,753
									1,0 kV	5.298,655	796,950	6.095,605
	1	1				1	1	1	0,4 kV	0,000	0,000	0,000
Total	0	0	3	0	18	0	863	884	Total:	6.355,616	1.029,160	7.384,776
									110 kV	0,000	0,000	0,000
									35 kV	264,000	15,600	279,600
			ED JAGO	DINA					20 kV	513,970	113,100	627,070
									10 kV	626,060	144,190	770,250
									1,0 KV	3.427,190	701,600	4.128,790
									0,4 KV	0,000	0,000	0,000
Total	1	0	3	3	31	401	890	1.329	Total:	4.831,220	974,490	5.805,710
									110 kV	0,000	0,000	0,000
									35 kV	176,290	10,600	186,890
		I	ED KRAL	JEVO					20 kV	87,240	35,300	122,540
										928,017	104,177	1.112,794
									1,0 kV	4.009,000	0.000	4.201,000
Total	2	0	2	3	20	160	1.032	1.219	Total:	5.201.147	422.677	5.623.824
	_	•	_	•	_•				110 kV	0.000	0,000	0.000
									35 kV	228,000	20.000	248.000
		_							20 kV	0.000	0.000	0.000
		Ŀ	D KRUS	SEVAC					10 kV	1.321,000	394,000	1.715,000
									1,0 kV	5.263,000	453,000	5.716,000
									0,4 kV	0,000	0,000	0,000
Total	0	0	1	4	21	0	1.279	1.305	Total:	6.812,000	867,000	7.679,000
								1	110 kV	21,290	0,000	21,290
		-	0 I A 7 A I O						35 kV	127,000	6,050	133,050
		C	U LAZAI	LEVAL					20 kV	0,000	8,050	8,050
									10 kV	712,000	96,850	808,850

									10 kV	3 100 000	83.000	3 183 000
									0.4 kV	0.000	0.000	0.000
Total	0	0	1	1	12	5	733	752	Total:	3.960,290	193,950	4.154,240
_				1					110 kV	21,180	0,000	21,180
									35 kV	196,000	19,900	215,900
			ED LOZ	NICA					20 kV	0,000	0,000	0,000
									1.0 kV	0.000	0.000	0.000
									0,4 kV	3.095,040	64,170	3.159,210
Total	0	0	2	2	20	0	826	850	Total:	4.061,744	210,600	4.272,344
									110 kV	32,630	0,000	32,630
									35 kV	81,600	0,700	82,300
									20 kV	0,000	0,000	0,000
		6		FALAN					10 kV	270,000	0,700	270,700
									1,0 kV	2.131,000	16,000	2.147,000
				-		_			0,4 kV	0,000	0,000	0,000
Total	0	0	1	1	9	9	604	624	Total:	2.515,230	17,400	2.532,630
									110 kV	0,000	0,000	0,000
									35 kV	370,000	19,000	389,000
			בוו חם						20 kV	0,000	0,000	0,000
				.10L					10 kV	2.210,000	388,000	2.598,000
									1,0 kV	7.266,000	641,000	7.907,000
									0,4 kV	0,000	0,000	0,000
Total	0	0	7	0	48	0	2.105	2.160	Total:	9.846,000	1.048,000	10.894,000
									440137	1 166	0.000	1 100
									110 KV	1,100	0,000	1,166
									35 kV	290,805	40,000	330,862
				CAK					35 kV 20 kV	290,805 0,000	40,000 40,057 0,000	1,166 330,862 0,000
			ED CA	CAK					35 kV 20 kV 10 kV	290,805 0,000 1.669,432	0,000 40,057 0,000 269,986	1,166 330,862 0,000 1.939,418
			ED CA	CAK					35 kV 20 kV 10 kV 1,0 kV	1,166 290,805 0,000 1.669,432 6.207,660	0,000 40,057 0,000 269,986 212,753	1,166 330,862 0,000 1.939,418 6.420,413
			ED CA	CAK		_	_		10 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV	1,100 290,805 0,000 1.669,432 6.207,660 0,000	0,000 40,057 0,000 269,986 212,753 0,000	1,100 330,862 0,000 1.939,418 6.420,413 0,000
Total	0	0	ED CA	САК 3	37	0	1.795	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total:	1,166 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063	0,000 40,057 0,000 269,986 212,753 0,000 522,796	1,100 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859
Total	0	0	ED CA	CAK	37	0	1.795	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV	1,100 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000
Total	0	0	ED CA	САК 3	37	0	1.795	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV	1,166 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000	1,100 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000
Total	0	0	ED CA	CAK 3 BAC	37	0	1.795	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV	1,100 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000 622,000	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000 94,390	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000 716,390
Total	0	0	ED CA 3 ЕД SA	CAK 3 BAC	37	0	1.795	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV	1,166 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000 622,000 274,000	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000 94,390 67,000	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000 716,390 341,000
Total	0	0	ЕД СА 3 ЕД SA	CAK 3 BAC	37	0	1.795	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 35 kV 20 kV 10 kV 10 kV	1,100 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000 622,000 274,000 2.236,020	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000 94,390 67,000 168,194	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000 716,390 341,000 2.404,214
Total	0	0	ЕД СА 3 ЕД SA	CAK 3 BAC	37	0	1.795	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 35 kV 20 kV 10 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV	1,166 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000 622,000 274,000 2.236,020 0,000	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000 94,390 67,000 168,194 0,000	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000 716,390 341,000 2.404,214 0,000
Total Total:	0	0	ЕД СА 3 ЕД SA	САК 3 ВАС 4	37	0	299	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 10 kV 1,0 kV 0,4 kV Total:	1,100 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000 622,000 274,000 2.236,020 0,000 3.226,020	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000 94,390 67,000 168,194 0,000 356,584	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000 716,390 341,000 2.404,214 0,000 3.582,604
Total Total:	0	0	ED CA 3 ЕД SA	САК 3 ВАС 4	37	0	299	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 35 kV 20 kV 10 kV 0,4 kV Total: 110 kV 0,4 kV Total: 110 kV	1,100 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000 622,000 274,000 2.236,020 0,000 3.226,020 1.241,100	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000 94,390 67,000 168,194 0,000 356,584 0,000	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000 716,390 341,000 2.404,214 0,000 3.582,604 0,000
Total Total:	0	0	ЕД СА 3 ЕД SA	САК 3 ВАС 4	37	0	299	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 1,0 kV 0,4 kV Total: 110 kV 35 kV	1,100 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000 622,000 274,000 2.236,020 0,000 3.226,020 1.241,100 2.002,423	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000 94,390 67,000 168,194 0,000 356,584 0,000 197,337	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000 716,390 341,000 2.404,214 0,000 3.582,604 0,000 2.199,760
Total Total:	0	0 2	ED CA 3 ЕД SA 0	CAK 3 BAC 4	8	0 731	299	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 0,4 kV Total: 10 kV 0,4 kV Total: 110 kV 0,4 kV Total: 110 kV 35 kV 20 kV	1,100 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000 622,000 274,000 2.236,020 0,000 3.226,020 1.241,100 2.002,423 1.245,060	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000 94,390 67,000 168,194 0,000 356,584 0,000 197,337 281,875	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000 716,390 341,000 2.404,214 0,000 3.582,604 0,000 2.199,760 1.526,935
Total Total:	0 0 TOTA	0 2 L: DISTR	ЕД СА 3 ЕД SA 0 RIBUTIO	CAK 3 BAC 4	37 8 8	0 731 JEVO	299	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 35 kV 20 kV 110 kV 35 kV 20 kV 10 kV	1,100 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000 622,000 274,000 2.236,020 0,000 3.226,020 1.241,100 2.002,423 1.245,060 10.133,996	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000 94,390 67,000 168,194 0,000 356,584 0,000 197,337 281,875 1.865,955	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000 716,390 341,000 2.404,214 0,000 3.582,604 0,000 2.199,760 1.526,935 11.999,951
Total Total:	0 0 TOTA	0 2 L: DISTR	ED CA	CAK 3 BAC 4	37 8 KRAL	0 731 JEVO	299	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 35 kV 20 kV 10 kV 35 kV 20 kV 10 kV 10 kV 10 kV 10 kV 10 kV	1,100 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000 622,000 274,000 2.236,020 0,000 3.226,020 1.241,100 2.002,423 1.245,060 10.133,996 43.592,685	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000 94,390 67,000 168,194 0,000 356,584 0,000 197,337 281,875 1.865,955 3.374,817	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000 716,390 341,000 2.404,214 0,000 3.582,604 0,000 2.199,760 1.526,935 11.999,951 46.967,502
Total Total:	0 0 TOTA	0 2 L: DISTR	ЕД СА 3 ЕД SA 0 RIBUTIO	CAK 3 BAC 4	37 8 KRAL	0 731 JEVO	299	1.838	110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV Total: 110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV	1,100 290,805 0,000 1.669,432 6.207,660 0,000 8.169,063 0,000 94,000 622,000 274,000 2.236,020 0,000 3.226,020 1.241,100 2.002,423 1.245,060 10.133,996 43.592,685 0,000	0,000 40,057 0,000 269,986 212,753 0,000 522,796 0,000 27,000 94,390 67,000 168,194 0,000 356,584 0,000 197,337 281,875 1.865,955 3.374,817 0,000	1,166 330,862 0,000 1.939,418 6.420,413 0,000 8.691,859 0,000 121,000 716,390 341,000 2.404,214 0,000 3.582,604 0,000 2.199,760 1.526,935 11.999,951 46.967,502 0,000



3.1. Overview and Permits Status

Overview and status of permits, licenses and other required approvals, as well as new applications for permits in 2018 are presented in Table 188.

			Table 188
DISTRIBUTION AREA KRALJEVO			
Overview and status of permits in 207	18	1	
Branch	Obtained approvals and permits (number and date)	Applications for obtaining of new or extension of the existing permits	Note
ED ARANDJELOVAC			
Cable Iline 20 kV from TS 10 / 0,4 kV "Narodnih heroja" to MBTS 10 (20) / 0,4 kV-Beaz	ROP-ARA-2841-ISAW-1/2018 dated 13.02.2018.		
Reconstruction of NNM "Budžići" - Junkovac	351-2040/2018-02 dated 25.05.2018.		
Installation of NN SKS by existing concrete columns NNM no. 1 - Vojkovci - Dubrave	351-2355/2018-02 dated 03.09.2018.		
Installation of NN SKS by existing concrete pillars NNM "Vrelo" - Žabare on DV	351-2356/2018-02 dated 03.09.2018.		
Installation of NN SKS by existing concrete pillars NNM No.1 - Gorovič	351-2354/2018-02 dated 06.09.2018.		
Installation of NN SKS by existing concrete pillars NNM "Varosica" - G. Trnava	351-2366/2018-02 dated 10.09.2018.		
Reconstruction of NNM No.3 - Šume	351-803/2018-02 dated 29.01.2018.		
Installation of NN SKS by existing concrete columns NNM no. 1 - Žabare - Uroševići	351-2353/2018-02 dated 06.09.2018.		
Reconstruction of NNM no. 1 – Šume	351-183/2018-02 dated 09.01.2018.		
ED VALJEVO			
110/35 kV - Ub 1	351-02-00097/2018-07 dated 03 08 2018		
10 / 0.4 kV - Podbukovi 3	351-1858/2018-07 dated 22.11.2018.		
10 / 0.4 kV – Stara pijaca	351-431/2018-07 dated 26.04.2018.		
10 / 0.4 kV - Verdi	ROP-UB9925-ISAWHA-3/2018 dated 08.06.2018.		
10 / 0.4 kV - Joseva 4	351-1907/2018-07 dated 04.12.2018.		
10 / 0.4 kV - Bacevci 5	351-1998/2018-07 dated 21.12.2018.		
10 / 0.4 kV - Donja Kamenica 10	351-2037/2018-07 dated 03.01.2019.		
ED JAGODINA			
Cable line 1 kV from TS 10 (20) / 0,4 kV - Svilajnac 52 to KPK on KP. no. 5181/1 KO Svilajnac	ROP-SVI-13769-CPI-1/2017 dated 13.11.2018.		
NN network from TS 10 (20) / 0,4 kV - Gornji Mišević	ROP-JAG-35609-ISAW-1/2017 dated 22.02.2018.		
Cable line 35 kV and PTS 35 / 0,4 kV on KP no. 45/1 KO Končarevo	ROP-JAG-29168 ISAW-2/2018 dated 08.10.2018.		
Cable line 1 kV from MNN staircase for Levačka street from TS 10 (20) / 0,4 kV Jagodina 38 to KPK on KP no. 2542/1 KO Vinorača	ROP-JAG-36146- ISAW-2/2018 dated 15.11.2018.		
Cable line 1 kV from TS 10 / 0.4 kV Beko to Kp. no. 2969/2 KO Paracin - city to KPK - 1 and KPK - 2 per kp. no. 2944 KO Paracin - the city	ROP-PAR-16213-ISAW-1/2018 dated 18.06.2018.		



Cable line 1 kV from pillar MNN to IMO on kp.br. 563 KO Belušić	ROP-REK-27518-ISAW-1/2018 dated 24.09.2018.	
Cable line 1 kV from SBTS 10 / 0.4 kV Striza 9 to IMO SSO-1 per kp. no. 2681 KO Striža	ROP-PAR-27945-ISAWHA-4/2018 dated 21.08.2018.	
Zidana TS 10 / 0,4 kV Jagodnjak 4 in kp. no. 2411/13 KO Paracin - 10 kV connection cable lines per kp. no. 2411/14 and 5601/2 KO Paracin	ROP-PAR-530- ISAW-11/2018 dated 11.09.2018. ROP-PAR-530-GR-12/2018 dated 12.09.2018.	
Cable line 1 kV from TS 10 (20) / 0,4 kV Jagodina 119 to KPK per kpk. no. 3922/1 KO Jagodina	ROP-JAG-18362- ISAW-22/2018 dated 17.07.2018.	
Cable line 1 kV from TS 10 / 0,4 kV Kneza Milosa to CCP per kp. no. 2939/1 KO Ćuprija	ROP-CUP-37738-ISAW-2/2018 dated 15.01.2018.	
SBTS 10 (20) / 0,4 kV Ribare 20	ROP-JAG-23355- ISAW-2/2018 dated 16.08.2018.	
Cable line 20 kV from TS 10 (20) / 0,4 kV ZTPR N - Plast to TS 10 (20) / 0,4 kV - Juhor	ROP-JAG-11785- ISAW-2/2018 dated 29.06.2018.	
Cable line 1 kV from TS 10 / 0,4 kV Stadion do KPK na kp. no. 1941/1 KO Ćuprija	ROP-CUP-1754- ISAW-3/2018 dated 30.03.2018.	
SBTS 10 (20) / 0,4 kV Koncarevo 10 and cable line 10 (20) kV	ROP-JAG -17252- ISAW-2/2018 dated 19.07.2018.	
Cable line 1 kV from TS 10 / 0,4 kV Mihajlo Pupin to KPK kp. no. 911 KO Paracin	ROP-PAR-8898- ISAW-2/2018 dated 27.08.2018.	
Cable line 1 kV from TS 10 (20) / 0,4 kV Rekovac 3 to IMO per kp. no. 2542/1 KO Rekovac	ROP-REK-27518-ISAW-1/2018 dated 24.09.2018.	
Cable line 1 kV from TS 10 (20) / 0,4 kV Svilajnac 35 to IMO per kp. no. 430/2 KO Dubljane	ROP-SVI-13713-ISAWHA-2/2018 dated 18.06.2018.	
Cable lines 1 kV from TS 10 / 0,4 kV Industrial zone to CCP per kp. no. 2131/41 KO Paracin	ROP-PAR-5448-ISAW-2/2018 dated 29.03.2018.	
Dual cable line 1 kV from TS 10 (20) / 0,4 kV Jagodina 148 to KPK 14810 and 14811 per kp. no. 588/20 KO Jagodina	ROP-JAG-31340- ISAW-2/2017 dated 20.11.2018.	
Cable line 1 kV from TS 10 (20) / 0,4 kV Jagodina 103 to KPK per kp. no. 680/72 KO Jagodina	ROP-JAG-3115- ISAW-2/2017 dated 12.03.2018.	
Cable line 1 kV from TS 10 (20) / 0,4 kV Jagodina 131 to IMO 1 per kp. no. 3662/2 KO Jagodina	ROP-JAG-1290- ISAW-1/2018 dated 19.01.2018.	
Cable line 1 kV from TS 10 (20) / 0,4 kV Jagodina 46 to KPK per kp. no. 4377/1 KO Jagodina	ROP-JAG-30231-ISAWA-5/2018 dated 07.02.2018.	
MBTS 10 (20) / 0,4 kV Gigos with connection DV 10 (20) kV	ROP-JAG-31244-ISAWA-4/2018 dated 26.06.2018.	
Power cable line 1 kV from TS 10 / 0,4 kV Grand Palace to CCP facility on kp. no. 2089 KO Paracin	ROP-PAR-2603- ISAW-3/2018 dated 03.05.2018. године	
Cable line 1 kV from TS 10 (20) / 0,4 kV Jagodina 119 to KPK SO on kpk. no. 3957 KO Jagodina	ROP-JAG-17578- ISAW-3/2018 dated 24.04.2018.	
Cable lines 1 kV from TS 10 (20) / 0,4 kV Jagodina 72 to KPK PO to kpk. no. 3997/54 KO Jagodina	ROP-JAG-36478- ISAW-2/2018 dated 15.03.2018.	



Cable lines 1 kV from TS 10 (20) / 0,4 kV Jagodina 72 to KPK PO to kpk. no. 3997/54 KO Jagodina	ROP-JAG-39945- ISAWHA-3/2018 dated 15.03.2018.		
Cable line 1 kV from TS 10 (20) / 0,4 kV Svilajnac 67 to CCP PO at kkp. no. 5900/6 KO Svilajnac	ROP-SVI-8795-ISAW-1/2018 dated 10.04.2018.		
ED KRALJEVO			
TS 10 / 0,4kV Zaklopaca 3	ROP-KRA-37264-ISAWHA-2/2018, 351-8- 184/2018-06 27.12.2018. године		Work reported
KV 10 kV - Branch for "Adrane 27" - "Gir"	ROP-KRA-2182-ISAW-3/2018, 351-8- 154/2018-06, 01.11.2018.		Work reported
KV 10 kV - TS Konarevo 5 - from future UZB Pillar No.7 to existing UZB Pillar No.4, "Unipromet"	ROP-KRA-16215- ISAW-3/2018,351-8- 92/2018-06 18.07.2018.		Finished
KV 10 kV "Magnohrom 16"	ROP-KRA-20191- ISAW-1/2018, 351-8- 94/2018-06 19.07.2018.		Finished
KV 10 kV "Adrani 28" - LA COME TEHNO	351-8-95/2018-06 dated 19.07.2018.		Work reported
KV 10 kV for TS 10 / 0,4 kV "Ratarsko imanje 1"	ROP-KRA-25406- ISAW-2/2018,351-8- 141/2018-06 09.10.2018.		Finished
	Plant Raška		
Cable line 10 kV "TS 110/35/10 kV, Kopaonik - Treska 2"	351-52/18 (ROP-RAS-18484-ISAW-1/2018) dated 09.07.2018.		Finished
Cable line 10 kV "TS 10 / 0.4 kV Crni vrh - Bacin grob - Pašajlićki to - Odvraćenica"	351-90/18 (ROP-RAS-28061- ISAW-1/2018) dated 25.09.2018.		Work reported
10 kV cable line "TS 10 / 0,4 kV Old scraper 2 - TS 10 / 0,4 kV Supnie 1"	351-88/18 (ROP-RAS-27746- ISAW-1/2018) dated 24.09.2018.		Work reported
MBTS 10 / 0.4 kV "Lisinsko brdo"	351-75/18 (ROP-RAS-24361- ISAW-1/2018) dated 27.08.2018.		Finished
MBTS 10 / 0.4 kV "Treska 3"	351-74/18 (ROP-RAS-24358—ISAWHA- 2/2018) dated 26.09.2018.		Finished
	Plant Vrnjačka Banja		
MBTS "Grabak 3"	ROP-VBN-33608-ISAW-1/2018 15.11.2018.		
KV 20 kV "Grabak 1" - Stara Arena	ROP-VBN-35883 ISAW-1/2018 19.06.2018		
KV 20 KV "Grabak 3" - Stara Arena	ROP-VBN-35884-15AW-1/2018 06.12.2018.		
line	ROP-VBN-16225- ISAW-1/2018 06.12.2018.		
ED KRUŠEVAC			
Registration of the beginning of works on construction of SBTS 10 / 0,4kV "Sasilovac 3" with connection line 10 kV - City of Kruševac	ROP-KRU-716-WA-1/2018 Internal number :351-169/2018 15.01.2018.		
Reporting of the beginning of works on construction of low voltage network from SBTS 10 / 0,4kV "V. Šiljegovac "- the city of Kruševac	ROP-KRU-720- WA-1/2018 Internal number :351-170/2018 15.01.2018.		
Decision on the legalization of TS 10 / 0,4kV "Lazarica 1 Brdo" in Moravska Street on cadastral parcel 3075/2 KO Krusevac	351-2419/2017 dated 22.01.2018.		
Notification of the beginning of works on the construction of 10 kV cable line for TS 10 / 0,4 kV "Brus - Pezini" SO Brus	ROP-BRU-5084-WA-1/2018 Internal number :351-10/2018-4-6 од 02.03.2018.		
Location conditions for construction of TS 10 / 0,4kV "Doljane 3" with connection line "Doljane 3" City of Kruševac	ROP-KRU-3608-LOC-1/2018 Internal number :350-75/2018 07.03.2018.		



Solution for the construction of TS 10 / 0,4 kV "Ciglana" with 10 kV connection line and NN discharge in Stalac SO Ćićevac	ROP-CIC-5123-ISAW-1/2018 Internal number :351-15/18-05 05.03.2018.	
Degistration of the start of the		
Registration of the start of the		
construction of SBTS 10 / 0,4kV	ROP-KRU-7539- WA-1/2018 Internal number	
"Lovei 3" with connection line 10 kV		
City of Krusevac		
Registration of the start of the		
construction of SPTS 10 / 0 ///	ROP-KRU-7534- WA-1/2018 Internal number	
	: 351-1565/2018 од 27.03.2018.	
"Bukovica 1" - City of Kruševac	· · · · · · · · · · · · · · · · · · ·	
Reporting of the beginning of works		
	ROP-KRU-7536- WA-1/2018 Internal number	
on SBIS 10 / 0,4KV "Makresane 1" -	· 351-1566/2018 on 27 03 2018	
Citv of Kruševac	. 331-1300/2010 од 27.03.2010.	
Location conditions for construction of		
	ROP-KRU-5080-LOC-1/2018 Internal	
KV 1 kV from TS10 / 0,4 kV "Cepak	number : 250 107/2019 29 02 2019	
Parking" - City of Kruševac	Turnber . 550-107/2016 26.05.2016.	
Denerting of the start of construction		
Reporting of the start of construction		
of TS10 / 0.4kV "Ciglana" with	ROP-CIC-7538- WA-1/2018 Internal number	
connection line 10 kV and the	· 351_32/18_05 28 03 2018	
	. 331-32/10-03 20.03.2010.	
necessary INN discharge SO Cicevac		
Registration of the beginning of		
construction works TC10 / 0 4kV		
COnstruction works 1510/0,4KV	ROP-KRI I-7891- WA-1/2018 Internal number	
"Mudrakovac 5" with part of the		
necessary development - City of	: 351-1645/2018 29.03.2018.	
Krusevac		
Solution for the execution of works on		
the construction of $1 k / coble lines$	DOD KOLL 0262 ISAM/ 1/2019 Internal	
from TS 10 / 0,4kV "Cepak Parking" -	number : 351-1870/2018 24.04.2018.	
City of Kruševac		
Desision for norferming works on		
Decision for performing works on	ROP-KRU-10295- ISAW-1/2018 Internal	
dislocation of TS 1 kV "Ribare 2" in		
Ribar - City of Kruševac	number :351-1944/2018 25.04.2018.	
Descrition of the hearing is a function		
Reporting of the beginning of works		
on construction of low voltage 1 kV	ROP-KRU-11657- WA-1/2018 Internal	
from TS $10/0.4 \text{ k}//$ "Conak Parking 1	number : 351 2016/2018 08 05 2018	
2" - City of Kruševac		
Registration of the start of works on		
the dislocation of SPTS 10 / 0 /k/	ROP-KRU-1168- WA-1/2018 Internal number	
	351-2017/2018 08 05 2018	
"Ribare 2" - City of Kruševac		
Registration of the beginning of works		
and the construction of 10 la/ askin line		
on the construction of 10 kV cable line	ROP-KRU-11686- WA-1/2018 Internal	
from TS 10 / 0,4 kV "Ribare 2" to TS	number :351-2019/2018 08.05.2018.	
10 / 0.4 kV "Bolievac" - Kralievo City		
	+	
Decision for decommissioning TS 10 /	ROP-KRI 1-11686- W/A-1/2018 Internal	
0,4kV construction "Mudrakovac 5"		
with $KV = City of Kruševac$	number :351-622/2018 14.05.2018.	
Registration of the start of the		
construction of the SBTS 10 / 0.4kV	ROP-BRU-12486- WA-1/2018 Internal	
"Volika Grabovnica 4" with the	number:351 30/2019 IV/ 06 15 05 2019	
	number.331-30/2010-17-00 13.03.2018.	
connection DV 10 kV - SO Brus		
Report on the beginning of works on		
the construction of 10 10/ and the first		
the construction of TU KV cable line for	RUP-NRU-12200- WA-1/2018 Internal	
TS 10 / 0,4 kV "Mudrakovac 5" - Citv	number :351-2037/2018 14.05.2018.	
of Kruševac		
Solution for the construction of SBTS		
10 / 0.4kV "Doliane 3" with 10 kV		
connection line and receptivitien of	ROP-KRU-12198- ISAW-1/2018 Internal	
	number :351-2036/2018 17.05.2018	
the low voltage network - City of		
Kruševac		
Location conditions for the	DOD KDU 13702 LOC 1/2019 Internal	
Location conditions for the		
	number 260 260/2010 21 06 2010	



		1	
"Radomira Jakovljevića 1" with			
Kruševac			
Location conditions for reconstruction			
of KV 35 and 10 kV from TS 110/10	ROP-KRI I-12/190- I OC-1/2018 Internal		
kV "KŠ 4-14 Oktobar", "Center 1 and	number : 350-233/2018 01 06 2018		
2" and TS 10 / 0,4kV "Lamela" - City			
of Kruševac			
Decision for the construction of MNN	ROP-CIC-15236-ISAW-1/2018 Internal		
from 15 10 / 0,4KV "Pojate 1" "Pojate	number :351-54/18-05 08.05.2018.		
2 - SU CICEVAC Registration of the beginning of works			
on the construction of low voltage	ROP-KRI I-15784- WA-1/2018 Internal		
network from TS 10 / 0 4kV "Mali	number :351-2169/2018 11 06 2018		
Kupci 4" - City of Kruševac			
Reporting of the start of construction			
of low voltage network from TS 10 /	RUP-KRU-15/90- WA-1/2018 Internal		
0,4kV "Zdravinje 4" - City of Kruševac			
Decision for construction of TS 10 /			
0,4kV "Radomira Jakovljevića 1" with	ROP-KRU-16465- ISAW-1/2018 Internal		
connection line 10 kV - City of	number : 351-2195/2018 21.06.2018.		
Kruševac			
Decision for reconstruction of 35 kV			
and 10 kV cable from 1S 110/10 kV	ROP-KRU-16460 ISAW-1/2018 Internal		
$KS 4-14 \cup Ktobar$, Center I and Z	number :351-2194/2018 21.06.2018.		
kručovao			
Registration of the beginning of works			
on the construction of TS $10/0.4$ kV			
"Radomira Jakovlievića 1" with	ROP-KRU-18343- WA-1/2018 Internal		
connection line 10 kV - City of	number :351-2310/2018 02.07.2018.		
Kruševac			
Reporting of the beginning of works			
on the construction of low voltage	ROP-CIC-18346- WA-1/2018 Internal		
network from TS 10 / 0,4kV "Pojate 1"	number :351-61/2018 03.07.2018.		
TS 10/0 kV "Pojate 2" -SO Cićevac			
Registration of the beginning of works			
on construction of MBIS-IS 10 /	ROP-KRU-21655 -WA - 1/2018 Internal		
0,4KV MUUTAKOVAC 2 - City of	number :351-2951/2018 30.07.2018.		
Registration of the beginning of the			
construction of SBTS 10 / 0 4kV			
"Doliane 3" with 10 kV connection line	ROP-KRU-21647- WA-1/2018 Internal		
and reconstruction of the low voltage	number: 351 2950/2018 27.07.2018		
network - City of Kruševac			
Decision for reconstruction of 10 kV			
from TS 35/10 kV "Bus station" - TS	ROP-KRU-25781- ISAW-1/2018 Internal		
10 / 0,4 kV "Dusanova 2" - City of	number :351-3684/2018 05.09.2018.		
Kruševac			
Decision for reconstruction of 10 kV			
water copy "Concrete Base" from TS			
110/10 kV "KS 2" - direction from 1S	RUP-KRU-25944- ISAW-1/2018 Internal		
SRTS 10 / 0 / 1/ 1/ "Gas station" City	10109.2018. 100/2010 10.09.2018.		
of Kruševac			
Confirmation of commencement of			
works on reconstruction of low voltage	ROP-BRU-19099- WA-1/2018 : Internal		
network from TS 10 / 0.4kV "Batote 1"	number 351-36/2018 06.07.2018.		
- SO Brus			
Decision for execution of works on	ROP-KRU-29933- ISAW-1/2018 Internal		
reconstruction of MNN from TS 10 /	number :351-4242/2018 12.10.2018.		



0,4kV "Mali Šiljegovac 5" - City of Kruševac		
Decision for the execution of works on the reconstruction of MNN from TS 10 / 0,4kV "Mali Šiljegovac 4" - City of Kruševac	ROP-KRU-29935- ISAW-1/2018 Internal number :351-4243/2018 12.10.2018.	
Solution for construction of 10 kV overhead line from TS 10 / 0,4 kV "Mali Šiljegovac 4" to TS 10 / 0,4 kV "Mali Šiljegovac 5" - City of Kruševac	ROP-KRU-31291- ISAW-1/2018 Internal number: 351-4464/2018 26.10.2018.	
Solution for construction of 10 kV overhead line from TS 10 / 0,4 kV "Mali Šiljegovac 4" to TS 10 / 0,4 kV "Mali Šiljegovac 5" - City of Kruševac	ROP-KRU-33419- ISAW-1/2018 Internal number:351-4723/2018 08.11.2018.	
Location conditions for construction of SBTS 10 / 0,4kV "Mali Siljegovac 4" with connection line 10 kV - City of Kruševac	ROP-KRU- 31270- LOC-1/2018 Internal number:350-571/2018 21.11.2018.	
Solution for the execution of works on the construction of water 1 kV from TS 10 / 0,4 kV "Pijaca" on existing NN pillars - SO Aleksandrovac	ROP-AK-37098-ISAW-1/2018 Internal number:351-3298/2018 14.12.2018.	
Certificate of commencement of works on the construction of water 1 kV from TS 10 / 0,4 kV "Market" on existing NN pillars - SO Aleksandrovac	ROP-AK-38079- WA-1/2018 Internal number:351-3315/2018 25.12.2018.	
Decision for execution of works for SBTS 10 / 0,4kV "Mali Šiljegovac 4" with connection line 10 kV - City of Kruševac	ROP-KRU-37763- ISAW-1/2018 25.12.2018.	
The solution for the execution of works for SBTS 10 / 0,4kV "Obrež 21" with 10 kV connection line from SBTS 10 / 0,4kV "Obrež 11" to SBTS 10 / 0,4kV "Obrež 21" and SBTS 10 / 0,4kV " Obrež 23 "with connection line from SBTS 10 / 0,4kV" Obrež 21 "to SBTS 10 / 0,4kV" Obrež 23 "- SO Varvarin	ROP-VAR-36866-ISAWHA-2/2018 Internal number:351-160/2018-BAP 28.12.2018	
ED LAZAREVAC		
TS 35/10 kV - Lazarevac 4	ROP-LAZ-986-LOCH-2/2018 dated 12.02.2018.	
KV 35 kV - Očaga Lazarevac 4	ROP-LAZ-30142-LOCH-2/2018 dated 26.11.2018.	
KV 10 kV, MBTS Lajkovac 2 - Bayen	ROP-LAJ-1533-ISAW-2/2018. dated 27.04.2018	
KV 1 kV from TS "Sud" - Lazarevac	ROP-LAZ-3015- ISAW-2/2018 dated 11.04.2018.	
KV 10 kV Lazarevac 3 - Naselje Sabac	ROP-LAZ-10831- ISAW-2/2018 dated 04.06.2018.	
KV 1 kV from TS Orašac 2 - Lazarevac	ROP-LAZ-28363- ISAW-4/2018 06.02.2018.	
NNM from TS Zidana in Lalinci	ROP-LIG-40293-ISAWHA-3/2018 dated 14.06.2018.	
DV 10 kV, SBTS "Kale" - Stepojevac	ROP-LAZ-5186- ISAW-3/2018 dated 19.04.2018.	
KV 10 kV, reconstruction of TS "Borverek 2" - Lajkovac	ROP-LAJ-2306-ISAWHA-3/2018 dated 26.04.2018.	
KV 1 kV from TS "Sup" - Lajkovac	ROP-LAJ-3387- ISAW-1/2018 dated 13.02.2018.	



KV 1 kV from TS "Orašac 1" - Dositeja Obradović - Lazarevac	ROP-LAZ-7063- ISAWHA-4/2018 dated 23.05.2018.	
KV 1 kV from TS "Vrtic 2" - Lazarevac	ROP-LAZ-6620- ISAWHA-5/2018 од 12.06.2018.	
KV 1 kV from TS "Zoja" - Lazarevac	ROP-LAZ-26151- ISAW-2/2018 dated 17.10.2018.	
KV 10 kV, MBTS "Bajića kafana" - Lajkovac	ROP-LAJ-19312- ISAW-4/2018 dated 21.09.2018.	
SBTS "Stara pruga" - Bogovodja	ROP-LAJ-28023- ISAW-2/2018 dated 18.10.2018.	
MBTS "Nova Baranja 1" - G. Toplica	ROP-MIO-18213-ISAW-1/2018 dated 05.07.2018.	
Displacement of NNM and KV 1 kV from TS "Vasarište 2" - Lazarevac	ROP-LAZ-29904- ISAW-3/2018 dated 22.11.2018.	
KV 10 and 1 kV, MBTS - Health Center Gornja Toplica	ROP-MIO-30169- ISAWHA-4/2018 dated 04.01.2019.	The procedure started in 2018
ED LOZNICA		
MBTS 10 / 0,4kV "Gimnazijska" at KP 5296 KO Loznica with connection cable 10 kV and low voltage 0,4 kV network discharge, through KP no. 5268/1, 5268/4, 5295 and 5298 KO Loznica	351-977/2018-V dated 04.12.2018.	
SBTS 10 / 0,4kV, 160/100 k VA "Jerotica mala", on KP no. 1066 KO Kozjak	351-214/2018- V dated 11.04.2018.	
SBTS 10 / 0,4kV, 100/50 k VA "Gornji Budisic" on KP no. 1109 KO Budišić, Mali Zvornik	351-188/2018-03 dated 04.06.2018.	
SBTS 10 / 0,4kV "Miladinovići" with connection of DV 10 kV and failure of MNN Kržava	351-16/2018-04 dated 01.02.2018.	
MBTS 10 / 0,4kV "Železnička" on KP 4857/18 with 10 kV connection cable and 0,4 kV low voltage network failure, through KP 11924, 4858/1, 4857/19, 4857/1, 4857/2 and 4857/3 KO Loznica	351-323/2018- V dated 21.05.2018.	
Construction of KBTS 10 / 0,4 kV, 630 k VA "Vilzonova", on KP no. 8739 KO Loznica	351-330/2018- V dated 17.05.2018	
Construction of MBTS 10 / 0,4 kV "Loznica transport", on k.p.4725 / 5 KO Loznica	351-1005/2018- V dated 05.12.2018	
Construction of SBTS 10 / 0,4kV "Aleksici Lipolist" in Lipolist	353-4-94-2018-11 dated 29.05.2018	
Connection DV 10 / 0,4kV for SBTS 10 / 0,4kV "Ehtol", KO Runjani, Sabacki put, Loznica	351-338/2018- V dated 22.05.2018.	
Cable line DV 2x35 kV from TS 110/35 kV "Loznica" to the border crossing Šepak in the Industrial zone through KP no. 4665, 4664/2, 4533/29, 4533 / 18,4533 / 16, 4533/21, 4534/2 and 11934 KO Loznica	351-599/2018- V dated 09.08.2018	
Connection DV 10 / 0,4kV for SBTS 10 / 0,4kV "Popić", on KP no. 981 KO Ribari	353-4-71/2018-11 dated 19.04.2018	



Cabling of DV 10 / 0,4 kV from TS 35/10 kV "Loznica 2" - TS 10 / 0,4 kV "Industrial zone" - TS 10 / 0,4 kV "Šepački put" Loznica	351-353/2018- V dated 29.05.2018	
MBTS 10 / 0,4kV "Industrial zone" with connection cable 10 kV	351-352/2018- V dated 29.05.2018	
SBTS 10 / 0,4 kV "Rogulje" with connecting DV 10 kV and discharge MNN, Rogulje, Radalj	351-210/2018-03 dated 22.06.2018	
SBTS 10 / 0.4kV "Strugara Radanović". Čokešina	351-83/2018- V dated 14.02.2018	
SBTS 10 / 0,4kV "School" with connection DV 10 kV, Orovicka mountain	351-34/18-04 dated 09.07.2018	
Connection cable line 10 kV for ZTS 10 / 0,4 kV "Pejak Handel" on KP no. 179/18 KO Banja Koviljača	351-659/2018- V dated 27.08.2018	
ZTS 10 / 0,4kV "Pejak Handel" on KP no. 179/18 KO Banja Koviljača	351-660/2018- V dated 28.08.2018.	
Cable line 10 kV from STS "Kikanovići" to DV pillar on KP no. 15560/1 KO Loznica	351-579/2018- V dated 02.08.2018	
Connection cable line 10 kV for MBTS 10 / 0,4 kV "Diskopatija 2", Banja Koviljača	351-902/2018- V dated 01.11.2018	
ED NOVI PAZAR		
DV и TC - Crnoca	ROP-NPA-825-ISAW-1/2018 19.01.2018	
MBTS, DV, NNM - Blazevo	ROP-NPA-21070- ISAW-5/2018 07.12.2018	
MBTS Podgradac - TT	ROP-TUT-2969-ISAW-1/2018 09.02.2018	
SBTS Ramoshevo - TT	ROP-TUT-24227- ISAW-1/2018 27 08 2018	
SBTS Dubovo 3 - Katanovac - TT	ROP-TLIT-24228—ISAW-1/2018 27 08 2018	
SBTS Istocni Moistir - TT	ROP-TUT-24226-ISAW -1/2018 27 08 2018	
Cable NN electricity connection office	ROP-NPA-37766-APEL-2/2017 04.04.2018.	
Cable NN lines with TS Musala for circular flow	ROP-NPA-5409-ISAWHA-3/2018 31.07.2018	
Cable NN electricity connection of the business building Faek Company d.o.o.	ROP-NPA-30854-ISAWHA-2/2018 02.11.2018	
NNM Boroštica-Tutin	ROP-TUT-2205- ISAW-1/2018 01.08.2018.	
Reconstruction of DV 35 kV NP1-TS Jug and NP2 - Center	ROP-NPA-36215—APEL-2/2017 dated from 12.12.2018.	
ED UŽICE		
SBTS 10 / 0.4 kV 1x400 kVA "Iver Skijaliste" with connection cable 10 kV	Decision under Article 145 for construction No. 351-648 / 18-02	
Cable line 10 kV for TS 10 / 0,4 kV - Flight control from TS Bukvići	Decision under Article 145 No.351-247 / 18- 02 dated 06.08.2018.	
TS 110/35/10 kV "Uzice 2"	Decision number.351-02-00108/2018-07 dated 26 11 2018	
	Plant Čaletina	
KV 10 kV за TC Roundabout	ROP-CAJ-4322-ISAW-1/2018 dated	
	12.03.2018.	
TS 10 / 0,4 kV - Obudojevica 3	12.03.2018. ROP-CAJ-12562- ISAW-1/2018 dated 28.05.2018.	



KV 10 kV - Danica-Vlaovina	ROP-CAJ-8214- ISAW-1/2018 dated 4.04.2018	
TC 10/0,4 кV - Cerbia	ROP-CAJ-7300- ISAW-1/2018 dated 20.04.2018	
TC 10/0,4 κV - Valovina	ROP-CAJ-4320- ISAW-1/2018 dated 14.03.2018	
TC 10/0,4 κV - Rajevske Kolibe	ROP-CAJ-491- ISAW-1/2018 dated 25.01.2018.	
TC 10/0,4 κV - Rajevske Kolibe-Oko	ROP-CAJ-4321- ISAW-1/2018	
TC 10/0,4 κV - Zlatiborgradnja	ROP-CAJ-857- ISAW-1/2018 dated 26.01.2018	
TC 10/0,4 кV - Oko	ROP-CAJ-487- ISAW-1/2018 dated 25.01.2018	
TS 10 / 0,4 kV - Koliba 2	ROP-CAJ-487- ISAW-1/2018 dated 28.11.2018	
	Plant Arilje	
SBTS 10 / 0,4 kV "Stamenića brdo" and connecting DV 10 kV "Stamenići (tower) -Stamenića brdo" (separation from DV 10 kV "Visoka") were put into operation for the first time in June 2018	Decision on approval for construction: ROP- ARI-11664-ISAW-2/2017; 01 br.RIR-28/17 dated 31.07.2017	
SBTS 10 / 0,4 kV "Klisura" and connecting 10 kV "Jovanovici - Klisura" (separation from DV 10 kV "Dobrače") were put into operation for the first time in September 2018	Decision on approval for construction: ROP- ARI-25376- ISAW-1/2017; 01 no: .RIR-32/14 dated 24.08.2017.	
	Plant Kosjerić	
Order for placing (first time) under the voltage of the SBTS 10 / 0,4 kV "Milovanovići" and the connection line 10 kV "Milovanovići-Donji Taor" (separation from DV 10 kV "Ražana")	8M.1.2.0.D.09.15-14062 / 1-158 dated 02.04.2018. (Building permit approval: ROP- VAL-30904-ISAW-1/2017; 351-4990 / 2017- 07 dated 16.10.2017.	
Approval for construction of low voltage network with STS 10 / 0.4 kV "Lučica fence"	Construction Approval: ROP-KOS-30576- ISAW-1/2018; 351-563 / 2018 dated 24.10.2018	
	Plant Požega	
Order for placing (first time) under the voltage of the SBTS 10 / 0,4 kV "Dražinovići 3" and the connection line 10 kV "Dražinovići 3 - Savići" (separation from DV 10 kV "Ježevica")	Dated 09.15-94057/1-18 dated 30.03.2018. (Decision for construction: ROP-POZ-7029- ISAW-1/2017; 03 number 351-69 / 2017 of 27.03.2017	
ED ČAČAK		
KV 35 kV from TS 110/35 kV "Gornji Milanovac 1" to TS 35/10 kV "Spektar"	ROP-GML-2241-ISAW-3/2018 29.03.2018	
KV 35 kV from TS 110/35 kV "Gornji Milanovac 1" to TS 35/10 kV "Spektar"	ROP-GML-2241-WA-4/2018 13.04.2018	
DV 35 kV for power supply TS 35/10 kV "Spektar"	ROP-GML-8192-WA-3/2018 08.01.2018	
KV 35 kV for "Čačak 4 - Hippodrome"	ROP-CAC-32127-CPIH-2/2018 19.03.2018	
KV 35 kV for "Čačak 4 - Hippodrome"	ROP-CAC-32127- WA-4/2018 03.04.2018.	
TS 35/10 kV "Hippodrome" in Preljina	ROP-CAC-13697- WA-3/2018 08.01.2018	
TS 35/10 kV "Hippodrome" in Preljina	ROP-CAC-13697-COFS-6/2018 24.10.2018	
TS 35/10 kV "Mrčajevci"	ROP-CAC-6311-LOC-1/2018 02.04.2018	
TS 35/10 kV "Mrčajevci"	ROP-CAC-6311- LOC-2/2018 21.06.2018	
Connection KV 35 kV for TS 35/10 kV "Mrčajevci"	ROP-CAC-15105- LOC-1/2018 22.06.2018.	
KV 35 kV from TS 35/10 kV Dajići - RP 35 kV "Rogopeč"	ROP-IVA-10642-LOC-1/2018 17.05.2018.	



KV 35 kV from TS 35/10 kV Dajići - RP 35 kV "Rogopeč"	ROP-IVA-10642- ISAW-2/2018 25.05.2018.	
KV 35 kV from TS 35/10 kV Dajići - RP 35 kV "Rogopeč"	ROP-IVA-10642- WA-3/2018 21.06.2018.	
DV 35 kV from TS 35/10 kV "Rudno" to Devići	ROP-IVA-5112- LOC-2/2018 23.10.2018.	
DV 35 kV from TS 35/10 kV "Rudno" to Devići	ROP-IVA-5112- ISAW-3/2018 29.11.2018	
DV 35 kV from TS 35/10 kV "Rudno" to Devići	ROP-IVA-5112- WA-4/2018 20.12.2018.	
10 kV connection line for SBTS 10 / 0,4 kV "Hladnjaca Kačulica"	ROP-CAC-27751-LOCA-2/2018 23.01.2018	
10 kV connection line for SBTS 10 / 0,4 kV "Hladnjača Kačulica"	ROP-CAC-27751- ISAW-3/2018 14.02.2018	
10 kV connection line for SBTS 10 / 0,4 kV "Hladnjača Kačulica"	ROP-CAC-27751- ROP-CAC -4/2018 02.03.2018	
Connection line 10 kV for TS 10 / 0.4 kV "Nenel group" in Gornji Milanovac	ROP-GML-27780-WA-4/2018 08.01.2018	
Distribution connection 10 kV in the area Lučani - Dijin	350-7/2018-06 26.01.2018	
10 kV Distributive connection in the Lučani region - Dljin for SBTS 10 / 0.4 kV "Vodovod Dljin" and "Zeta Dljin"	ROP-LUC-8701-LOC-1/2018 09.05.2018	
10 kV Distibutive connection in the Lučani region - Dljin for SBTS 10 / 0.4 kV "Vodovod Dlljin" and "Zeta Dljin"	ROP-LUC-8701- LOC-2/2018 25.06.2018	
Connection cable line 10 kV for SHPP "Kosmaj" on river Čemernica in Miokovci and Gornja Gorevnica to TS 10 / 0,4 kV "Kuzmanovići"	ROP-CAC-2259- LOC-1/201814.02.2018	
Connection cable line 10 kV for SHPP "Kosmaj" on river Čemernica in Miokovci and Gornja Gorevnica to TS 10 / 0,4 kV "Kuzmanovići"	ROP-CAC-2259- ISAW-2/2018 22.10.2018	
Connection cable line 10 kV for SHPP "Kosmaj" on river Čemernica in Miokovci and Gornja Gorevnica to TS 10 / 0,4 kV "Kuzmanovići"	ROP-CAC-2259- WA-3/2018 21.11.2018	
Reconstruction of connection line 10 kV for PTS 10 / 0.4 kV "Delici" in Lipnica	ROP-CAC-3950- LOC-1/2018 23.02.2018	
Reconstruction of connection line 10 kV for PTS 10 / 0,4 kV "Vir" and PTS 10 / 0,4 kV "Dolje kraj" in Preljina	ROP-CAC-10121- ISAW-2/2018 23.02.2018	
Reconstruction of connection line 10 kV for PTS 10 / 0,4 kV "Vir" and PTS 10 / 0,4 kV "Dolje kraj" in Preljina	ROP-CAC-10121- WA-3/2018 16.03.2018	
Connection KV 10 kV from pillar in the 10 kV line "Đekići - Đekići 2" to SBTS 10 / 0,4 kV "Aretol" in Preljina	ROP-CAC-2432- ISAW-2/2018 26.02.2018	
Connection KV 10 kV from pillar in the 10 kV line "Đekići - Đekići 2" to SBTS 10 / 0,4 kV "Aretol" in Preljina	ROP-CAC-2432- WA-3/2018 16.03.2018	
Connection KV 10 kV from pillar in the 10 kV line "Đekići - Đekići 2" to SBTS 10 / 0,4 kV "Aretol" in Preljina	ROP-KRA-3029-LOC-1/2018 28.02.2018	
KV 10 kV - cabling part of DV 10 kV for PTS 10 / 0,4 kV "Small" and PTS 10 / 0,4 kV "Letište" in Lasce	ROP-KRA-3029- ISAW-2/2018 04.06.2018.	
KV 10 kV - cabling part of DV 10 kV for PTS 10 / 0,4 kV "Small" and PTS 10 / 0,4 kV "Letište" in Lasce	ROP-KRA-3029-ISAWHA-3/2018 18.06.2018.	



KV 10 kV - cabling part of DV 10 kV for PTS 10 / 0,4 kV "Small" and PTS 10 / 0,4 kV "Letište" in Lasce	ROP-KRA-3029- WA-4/2018 06.07.2018.	
SBTS 10 / 0.4 kV "Dubnica" with connection to the existing DV 10 kV	ROP-SJE-4683-LOC-1/2018 05.03.2018.	
Reconstruction of cable line 10 κV for MNN 10/0,4 κV "Ćirovača" u Žaočanima	ROP-CAC-4836- LOC-1/2018 dated 07 march 2018	
MBTS 10/0,4 κV "Matis zgrada" with connection line 10 κV	ROP-IVA-3529-LOC-1/2018 dated 09 March.2018	
MBTS 10/0,4 κV "Matis zgrada" with connection line KV 10 κV	ROP-IVA-3529-ISAW-2/2018 dated 03 April 2018	
MBTS 10/0,4 κV "Matis zgrada" with connection line KV 10 κV	ROP-IVA-3529- WA-3/2018 dated16 April 2018	
Part of MV connection line 10 κV on Transmission line "Mehanizacija Vranići"	ROP-CAC-7644- LOC-1/2018 dated 02 April 2018	
Part of MV connection line 10 κV on Transmission line "Mehanizacija Vranići"	ROP-CAC-7644- ISAW-2/2018 date 27.04.2018.	
Part of MV connection line 10 κV on Transmission line "Mehanizacija Vranići"	ROP-CAC-7644- WA-3/2018 dated 09.05.2018.	
SBTS 10/0,4 κV "Prokop" with connection line of KV 10 κV in Konjevićima	ROP-CAC-11389- LOC-1/2018 dated 08.05.2018.	
SBTS 10/0,4 κV "Prokop" with connection line of KV 10 κV in Konjevićima	ROP-CAC-11389- ISAW-2/2018 dated 21.05.2018.	
SBTS 10/0,4 κV "Prokop" with connection line of KV 10 κV in Konjevićima	ROP-CAC-11389- WA-3/2018 dated 11.06.2018.	
SBTS 10/0,4 kV "Cetanoviće 2" with connection line to existing DV 10 kV	ROP-SJE-11083-LOC-1/2018 dated18.05.2018.	
SBTS 10/0,4 кV "Milekića put" with mixed goods 10 кV and 1 кV	ROP-LUC-26395-WA-3/2018 dated 25.05.2018.	
Connecting KV 10 κV for TS 10/0,4 κV "Lidl" in Čačak	ROP-CAC-9801-ISAWHA-2/2018dated 08.05.2018.	
SBTS 10/0,4 KV "Veliko imanje "- Rokci, Ivanjica	ROP-IVA-14907- LOC-1/2018 dated 14.06.2018.	
SBTS 10/0,4 kV "Veliko imanje"- Rokci, Ivanjica	ROP-IVA-14907- ISAW-2/2018 dated 21.06.2018.	
sewage and freestanding metering box in the profile of the street10 in Čačak	ROP-CAC-9539—LOC-2/2018 dated 18.06.2018.	
SBTS 10/0,4 κV "Euroline"with connection line 10 κV	ROP-CAC-19304- LOC-1/2018 dated 11.07.2018.	
KV (connection line) 10 κV "Kostić Stubline –Drvo art" Konjevići	ROP-CAC-27050- LOC-1/2018 dated 02.10.2018.	
KV (connection line) 10 κV "Kostić Stubline –Drvo art" Konjevići	ROP-CAC-27050- ISAW-2/2018 dated 09.10.2018.	
KV (connection line) 10 κV "Kostić Stubline –Drvo art" Konjevići	ROP-CAC-27050- WA-3/2018 dated 17.10.2018.	
MBTS 10 κV "Kostić Stubline –Drvo art" Konjevići	ROP-CAC-28773-LOCH-2/2018 dated 10.10.2018.	
MBTS 10 κV "Kostić Stubline –Drvo art" Konjevići	ROP-CAC-28773-LOCA-3/2018 dated 15.10.2018.	
MBTS 10 κV "Kostić Stubline –Drvo art" Konjevići	ROP-CAC-28773-ISAWHA-5/2018 dated 09.11.2018.	
MBTS 10 κV "Kostić Stubline –Drvo art" Konjevići	ROP-CAC-28773- WA-6/2018 dated 23.11.2018.	



Reconnecting power supply of consumers from existing SS 10/0,4 κV "Car Lazar" to existing SS 10/0,4 κV "Prag" in Čačak	ROP-CAC-33376- LOC-1/2018 dated 09.11.2018.	
Reconnecting power supply of consumers from existing SS 10/0,4 кV "Car Lazar" на existing SS 10/0,4 кV "Prag " in Čačak	ROP-CAC-33376- LOCH-2/2018 dated 03.12.2018.	
Connecting of 10 κV connection line (KV) for SS 10/0,4 κV "Unipromet 2 " - Konjevići	ROP-CAC-30948-ISAW-2/2018 dated 21.11.2018.	
Connecting of 10 кV connection line (KV) for SS 10/0,4 кV "Unipromet 2 " - Konjevići	ROP-CAC-30948- WA-3/2018 dated 04.12.02018.	
SBTS 10/0,4 ĸV "Prodel Team" Mrčajevci	ROP-CAC-35788- LOC-1/2018 dated 14.12.2018.	
SBTS 10/0,4 ĸV "Prodel Team" Mrčajevci	ROP-CAC-35788- ISAW-2/2018 dated 31.12.2018.	
Connecting of 10 kV connection line for MBTS 10/0,4 κV "Hladnjača Ločevci"- Gornji Milanovac	ROP-GML-36958-LOC-1/201/ dated 28.12.2018.	
Units MNN		
Connecting of 10 κV connection line (KV) from SS 10/0,4 κV "SMŠ" to SSO (free standing metering box) on kp.no. 1904/1 KM in Čačak in Episkopa Nikifora Maksimovića Street	ROP-CAC-37347-LOCH-3/2017 dated 03.01.2018.	
Connecting of 10 kV connection line (KV) from SS 10/0,4 kV "SMŠ" to SSO (free standing metering box) on kp. no. 1904/1 CM in Čačak in Episkopa Nikifora Maksimovića Street	ROP-CAC-37347- ISAW-4/2018 dated 11.01.2018.	
Connecting of 10 kV connection line (KV) from SS 10/0,4 kV "SMŠ" to SSO (free standing metering box) on CP.no. 1904/1 KM in Čačak in Episkopa Nikifora Maksimovića Street	ROP-CAC-37347- WA-5/2018 dated 26.01.2018.	
Connecting of 10 kV connection line (KV) from SS 10/0,4 kV "Mlin Donja Ježevica" to IMO on k.p. no. 338/3 KM Ježevica	ROP-CAC-39147- LOC-1/2017 dated 04.01.2018.	
Connecting of 10 κV connection line (KV) from SS 10/0,4 κV "Mlin Donja Ježevica" to IMO on CP. no. 338/3 CM Ježevica	ROP-CAC-39147-ISAWHA-3/2018 dated 19.01.2018.	
Connecting of 10 κV connection line (KV) from SS 10/0,4 κV "Mlin Donja Ježevica, to IMO on CP. no. 338/3 CM Ježevica	ROP-CAC-39147- WA-4/2018 dated 12.02.2018.	
Connecting of 10 κV connection line (KV) from SS 10/0,4 κV "Ševar " to IMO on kp.no. 748 CM Trbušani	ROP-CAC-39671- ISAW-2/2018 dated 11.01.2018.	
Connecting of 10 κV connection line (KV) from SS 10/0,4 κV "Ševar " to IMO on CP.no. 748 CM Trbušani	ROP-CAC-39671- WA-3/2018 dated 30.01.2018.	
Reconstruction of MNN from SS 10/0,4 κV "Boblija" - performs 1,2,3	ROP-GML-1428- ISAW-1/2018 dated 23.01.2018.	
Reconstruction of MNN from SS 10/0,4 κV "Boblija" - performs 1,2,3	ROP-GML-1428- WA-2/2018 dated 12.02.2018.	
Reconstruction of MNN from SS 10/0,4 "Beli kamen" - perform 2 Đurovići	ROP-GML-1427- ISAW-1/2018 dated 23.01.2018.	



Reconstruction of MNN from SS 10/0,4 "Beli kamen" - perform 2 Đurovići	ROP-GML-1427- WA-2/2018 dated 12.02.2018.	
Connecting of 10 kV connection line (KV) from SS 10/0,4 kV "Sinđelićeva 2" for facility on cadastral Parcel no. 540/1 CM Čačak in Sinđelićeva Street	ROP-CAC-2371- LOC-1/2018 dated 12.02.2018.	
Connecting of 10 κV connection line (KV) from SS 10/0,4 κV "Sinđelićeva 2" for facility on cadastral pl.no. 540/1 CM Čačak in Sinđelićeva Street	ROP-CAC-2371- ISAW-2/2018 05.03.2018.	
Connecting of 10 κV connection line (KV) from SS 10/0,4 κV "Sinđelićeva 2" for facility on kp.no. 540/1 CM Čačak in Sinđelićeva Street	ROP-CAC-2371- WA-3/2018 16.03.2018.	
Mixed underground- overhead 1 кV line from из SS 10/0,4 кV "Brđani kula"	ROP-GML-3028- LOC-1/2018 01.03.2018.	
Mixed underground- overhead 1 кV line from из SS 10/0,4 кV "Brđani kula	ROP-GML-3028- ISAW-2/2018 29.03.2018.	
Mixed underground- overhead 1 кV line from из SS 10/0,4 кV "Brđani kula	ROP-GML-3028- WA-3/2018 12.04.2018.	
Replacement of existing switchgear equipment and installation of telecommunication equipment on existing EE pillars in the area of Čačak	958-155/2018-IV-2-01 01.03.2018.	
Reconstruction of MNN from SS 10/0,4 κV "Sretenović"-perform 4	ROP-GML-4347- ISAW-1/2018 01.03.2018.	
Reconstruction of MNN from SS 10/0.4 KV "Sretenović"-perform 4	ROP-GML-4347- WA-2/2018 19.03.2018.	
Connecting KV (connection line) 1 κV from SS 10/0,4 κV "Hotel Morava" to MO (metering box) on the facade of hote "Morava" on cadastral pl.1455/1 CM Čačak in 2 Bulevar Vuka Karadžića Street	ROP-CAC—4878- LOC-1/2018 14.03.2018.	
Connecting KV (connection line) 1 kV from SS 10/0,4 kV "Hotel Morava" to MO (metering box) on the facade of hotel "Morava" on cadastral pl.1455/1 CM Čačak in 2 Bulevar Vuka Karadžića Street	ROP-CAC—4878- ISAW-2/2018, 02.04.2018.	
Connecting KV (connection line) 1 kV from SS 10/0,4 kV "Hotel Morava" to MO (metering box) on the facade of hotel "Morava" on cadastral pl.1455/1 CM Čačak in 2 Bulevar Vuka Karadžića Street	ROP-CAC—4878- WA-3/2018 12.04.2018.	
Reconstruction of MNN from SS 10/0,4 κV "Koštunići "-perform 3	ROP-GML-6142- ISAW-1/2018 19.03.2018.	
Connecting KV (connection line) 1 κV from SS 10/0,4 κV "Sokolski dom" for residential building on cadastral pl.no. 441 CM Čačak in Kralja Petra I Street	ROP-CAC-7893- LOC-1/2018 13.04.2018.	
Connecting KV (connection line) 1 κV from SS 10/0,4 κV "Sokolski dom" for residential building on cadastral pl.no. 441 CM Čačak in Kralja Petra I Street	ROP-CAC-7893- ISAW-2/2018 25.04.2018.	
Connecting KV (connection line) 1 κV from SS 10/0,4 κV "Sokolski dom" for	ROP-CAC-7893- WA-3/2018 10.05.2018.	



residential building on cadastral pl.no. 441 CM Čačak in Kralja Petra I Street		
Connecting KV (connection line) 1 KV		
from SS 10/0 4 κV Hotel Morava" to		
SSO (freestanding metering box)on	ROP-CAC-7636- LOC-1/2018 13.04.2018.	
cadast nl no 1438/2 CM Čačak		
Connecting KV (connection line) 1 KV		
from SS $10/0.4$ kV. Hotel Morava" to		
SSO (freestanding matering box)on	ROP-CAC-7636- ISAW-2/2018 23.04.2018.	
cadast pl po 1/38/2 CM Čačak		
Connecting KV (connection line) 1 wV		
from SS 10/0 4 w/ Hetel Marove" to		
1011 33 10/0,4 KV , Hotel Morava to	ROP-CAC-7636- WA-3/2018 08.05.2018.	
soo (neesianung metering box jon		
Cauasi.pi.10.1430/2 Civi Cacak		
from SS 10/0 4 v)/ Detenoko		
nom 55 10/0,4 kV "Belonska		
galanterija to SSO (freestanding	ROP-CAC-8495- LOC-1/2018 26.04.2018.	
metering box) on cadast.pl.no 818/3		
"Cajka M"		
Connecting KV (connection line) 1 KV		
from SS 10/0,4 kV "Betonska		
galanterija " to SSO (freestanding	ROP-CAC-8495- ISAW-2/2018 31 05 2018	
metering box) on cadast.pl.no 818/3		
CM Konjevići for warehouse needs		
"Cajka M"		
Connecting KV (connection line) 1 κV		
from SS 10/0,4 κV "Betonska		
galanterija " to SSO (freestanding	ROP-CAC-8495- WA-3/2018 19 06 2018	
metering box) on cadast.pl.no 818/3		
CM Konjevići for warehouse needs		
"Cajka M"		
Connecting KV (connection line) 1 κV		
from SS 10/0,4 κV "Sinđelićeva 3" for	ROP-CAC-14805-1 OC-1/2018 19 06 2018	
multi-storey residential building		
cadast.pl.no. 589 CM Cačak		
Connecting KV (connection line) 1 κV		
from SS 10/0,4 κV "Sinđelićeva 3" for	ROP-CAC-14805- WA-2/2018 11 07 2018	
multi-storey residential building		
cadast.pl.no. 589 CM Cačak		
Connecting KV (connection line) 1 κV		
from SS 10/0,4 κV "Hotel Morava" for	ROP-CAC-22560-1 OC-1/2018 20 08 2018	
multi-storey residential building	Roi -0R0-22300- 200-1/2010 20.00.2010.	
cadast.pl.no. 1428/1 CM Čačak		
Connecting KV (connection line) 1 κV		
from SS 10/0,4 κV "Hotel Morava" for	ROP-CAC-22560- ISAW-2/2018 21 08 2018	
multi-storey residential building	NOT -0A0-22300-10AW-2/2010 21.00.2010.	
cadast.pl.no. 1428/1 CM Cačak		
Connecting KV (2 connection lines) 1		
кV from SS 10/0,4 кV "Hotel Morava"	ROP-CAC-22560- WA-3/2018 25 09 2018	
for multi-storey residential building	Not -0A0-22300- WA-9/2010 23.03.2010.	
cadast.pl.no. 1428/1 CM Čačak		
Connecting KV (2 connection lines) 1		
κV from SS 10/0,4 κV "Nadežda		
Petrović" for multi-storey residential	ROP-CAC-29309- LOC-1/2018 22.10.2018.	
building cadast.pl.no.1656 CM Čačak		
in Koče Anđelkovića Street		
Connecting KV (2 connection lines) 1		
кV from SŠ 10/0,4 кV "Nadežda		
Petrović" for multi-storey residential	ROP-CAC-29309- ISAW-2/2018 29.10.2018.	
building cadast.pl.no.1656 CM Čačak		
in Koče Anđelkovića Street		



Connecting KV (2 connection lines) 1 κV from SS 10/0,4 κV "Nadežda Petrović" for multi-storey residential building cadast.pl.no.1656 CM Čačak in Koče Anđelkovića Street	ROP-CAC-29309- WA-3/2018 09.11.2018.	
ED ŠABAC		
Connecting DV (transmission line) 10(20)/0,4 κV, BSTS Jalovik XIII- Miloševići and construction of LV network in Mali Miloševići at the area of new SS and SS Jalovik VI- Velika Bara	ROP-VLA-13377-ISAW-1/2018 28.05.2018.	
Connection line 20 кВ from SS 110/20 кV Šabac to 2 до ČRS in 7.oktobra Street in Jevremovac	353-4-10/2018-11 18.01.2018.	
Connecting DV (transmission line) replacement of existing wooden pillar of LV from DV BS and furnishing of SS Krnule VII in Krnule	ROP-VLA-17702-ISAW-1/2018 28.06.2018.	
Connecting MV 20 kV, BSTS Jalovik XII и LV network for power supplying of Gajića male in Jalovik	ROP-VLA-17560- ISAW-1/2018 29.06.2018.	
MBTS 20/0,4 kV Majur XLVII - Darkom	ROP-SAB-40350-IUPH-6/2018 07.05.2018.	
MBTS 20/0,4 kV Majur XLVI Prodanović	ROP-SAB-8488- IUPH-6/2018 23.01.2018.	
MBTS 20/0,4 kV – Salaš Crnobarski VIII	ROP-BOG-28946-ISAW-1/2018 17.10.2018.	

3.2. Monitoring and Environmental Impact

The factors by which DA Kraljevo is affecting the environment are:

- Electromagnetic fields
- Environmental noise
- Waste
- Ground and surface waters quality
- Soil quality

3.2.1. Electromagnetic Fields

Electromagnetic field measurements were carried out in the environment on 7 locations in 2018 and they are given in table 189.

Table 189

DISTRIBUTION AREA KRALJEVO			
Electromagnetic field in the environment in 2018.			
Branch	Source and position in space	Electric field	Magnetic field
		Е _{мах} кV/m	Β _{мах} μΤ
ED Kraljevo	SS 35/10 kV "Tehnogas" Examination of human exposure to environmental low frequency of non- ionizing radiation	170,9 кV/m	0,92 µT
ED Kruševac	SS 35/10 kV "Autobuska stanica" Examination of human exposure to environmental low frequency of non- ionizing radiation	18, 11ĸV/m	0, 67 µT



ED Jagodina	SS 35/10 kV "Jagodina 2" Examination of human exposure to environmental low frequency of non- ionizing radiation	0, 80 кV/m	0, 32 µT
ED Lazarevac	SS 35/10 kV "Lazarevac1" Examination of human exposure to environmental low frequency of non- ionizing radiation	93, 31 кV/m	0, 36 µT
ED Aranđelovac	TC 35/10 kV "Meterize" Examination of human exposure to environmental low frequency of non- ionizing radiation	14,4 κV/m	0,20 µT
ED Šabac	TC 35/10 kV "Šabac 1" Examination of human exposure to environmental low frequency of non- ionizing radiation	1, 55 кV/m	0, 12 µT
ED Kraljevo	TC 10/0,4 kV "Komitet 1" Examination of human exposure to environmental low frequency of non- ionizing radiation	2 кV/m	40 µT
		Е (kV/м)	Β (μТ)
DIN / VDE 1995 Germany		-	-
NRPB 1993. – United Kingd	om	12	1.600
CENELEC 1995. – European pre-standard		12	640
ICNIRP 1998. – International recommendations		5	100

3.2.2. Environmental Noise

In 2018, environmental noise measurements were not carried out.

3.2.3. Waste

Characterization, categorization and partial sale of waste in 2018 is given in Table 190.


												Table 190					
DISTRIBUTION AREA KRALJEVO																	
Waste in 2018																	
										Bran	ch						
No.	RULES DEFINING WASTE CATEGORIES, ITS TESTING AND CLASSIFICATION Issued in "Official Gazette of RS", № 56/2010 dated 10.8.2010	Index no.	Unit	Ф	ED Aranđelovac	ED Valjevo	ED Jagodina	ED Kraljevo	ED Kruševac	ED Lazarevac	ED Loznica	ED Novi Pazar	ED Čačak	ED Užice	ED Šabac	TOTAL EPS DISTRIBUTION AREA KRALJEVO	NOTE
					Amounts												
1.	Sulfuric Acid	06 01 01*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste sulfuric acid
2.	Base NaOH and KOH	06 02 04*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste KOH
3.	Waste cartriges other than the stated in 08 03 17	08 03 18	t	0,000	0,000	0,000	0,000	0,07	0,000	0,000	0,000	0,030	0,150	0,000	0,000	0,250	Used cartriges
4.	Waste oil containing PCB	13 03 01*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	PCB contaminated transformer oils
5.	Mineral non chlorinated motor oils, gearbox oil and lubrication oils	13 02 05*	t	0,000	0,000	0,000	0,000	0,000	0,360	0,000	0,000	0,000	0,350	0,400	0,000	1,110	Motor oil
6.	Oiled water from separator oil/ water	13 03 07*	t	0,000	0,000	0,000	0,000	0,561	1,440	0,000	0,000	0,000	1,000	0,000	0,000	3,001	Trafo oil
7.	Packaging materials containing residues of hazardous substances or contaminated with hazardous substances	15 01 10*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,800	0,01	0,000	0,810	Waste contaminated packaging from chemicals
8.	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing,	15 02 02*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,570	0,000	0,000	0,570	Waste absorbent agents with oil and heavy fuel oil

-



	which are contaminated with hazardous substances																
9.	Waste tyres	16 01 03	t	0,000	0,000	0,276	0,000	0,020	0,000	0,000	0,000	0,750	0,600	0,900	0,000	2,546	Old car tyres
10.	Waste vehicles	16 01 04*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Old vehicles
11.	Waste vhicles not containing liquid and other hazardous substances	16 01 06	t	0,000	0,000	0,000	0,000	1,100	12,000	1,000	0,000	0,000	13,900	0,000	0,000	28,000	Old vehicles
12.	Oil filters e	16 01 07	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,100	0,010	0,000	0,110	Old filters
13.	Antifreeze containing hazardous substances	16 01 14*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,160	0,000	0,000	0,160	Antifreeze
14.	Ferrous materials	16 01 17	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,030	0,300	0,000	0,000	0,330	Ferrous material (power switches breakers and disconnectors)
15.	Transformers and condensers containging PCB	16 02 09*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	PCB contaminated equipment
16.	Rejected equipment other than the stated in 16 02 09 up to 16 02 13	16 02 14	t	0,000	0,000	0,000	0,000	0,000	0,000	0,15	0,000	0,800	10,000	0,000	0,000	10,950	Old transformers
17.	Lead-acid batteries	16 06 01*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,010	0,000	0,000	0,000	0,010	Lead –acid batteries
18.	Nickel-cadmium batteries	16 06 02*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste nickel- cadmium batteries
19.	Concrete	17 01 01	t	0,000	0,000	5,000	0,000	1,500	0,000	0,000	0,000	28,000	8,000	0,000	0,000	42,500	Old concrete piles
20.	Roof tiles and ceramics	17 01 03	t	0,000	0,000	0,000	0,000	0,700	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,700	Ceramics
21.	Insulation materials other than the stated in 17 06 01 and 17 06 03	17 06 04		0,000	0,000	0,000	0,000	0,000	0,000	0,300	0,000	0,000	2,000	0,000	0,000	2,300	Old insulators
22.	Plastic	17 02 03	t	0,000	0,000	0,019	0,000	0,015	0,000	0,000	0,000	0,000	0,210	0,000	0,000	0,244	Waste plastic
23.	Copper	17 04 01	t	0,000	0,000	0,000	0,000	0,488	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,488	Pure copper pieces and cooper wires
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Light copper



24.	Aluminum	17 04 02	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	2,498	0,000	0,000	0,000	0,000	2,498	Waste aluminum
25.	Iron and steel	17 04 05	t	0,000	0,000	0,622	0,200	1,000	3,000	0,95	1,075	0,200	1,070	0,000	0,000	8,117	Waste parts of equipment in TS, etc
26.	Mixed metals	17 04 07	t	0,000	0,000	0,000	0,150	0,670	2,000	0,000	0,000	1,300	17,812	5,000	0,000	26,932	Al-Fe rope
27.	Cables containing oil, tar from oil and other hazardous substances	17 04 10	t	0,000	0,000	0,277	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,277	Oiled cables
28.	Cables other than the stated	17 04 11	t	0,000	0,000	0,000	0,000	0,250	0,000	0,000	0,000	0,000	0,819	0,000	0,000	1,069	Waste aluminum cables
	11 17 04 10			0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste copper cables
29.	Paper and cardboarad	20 01 01	t	0,000	0,000	0,000	0,000	0,020	0,000	0,25	0,000	0,500	0,500	0,000	0,000	1,270	Old paper and cardboard
30.	Fluorescent tubes and other mercury containing waste	20 01 21*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,010	0,005	0,000	0,000	0,015	Waste fluorescent tubes
31.	Batteries and accumulators including in 16 06 01,16 06 02 and 16 06 03 and unsorted batteries and accumulators containing these batteries	20 01 33	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,102	0,150	0,000	0,252	Waste batteries and accumulators
32.	Rejected electric and electronic equipment other than the stated in 20 01 21, 20 01 23 and 20 01 35	20 01 35*	t	0,000	0,000	0,081	0,300	0,000	0,000	0,02	0,000	0,200	0,400	0,300	0,380	1,681	Computers, monitors
33.	Rejected electric and electronic equipment other	20 01 36	t	2,000	0,000	0,000	0,000	0,800	0,000	0,000	0,000	0,250	0,000	0,500	0,000	3,550	Induced meters



	than the stated in 20 01 21, 20 01 23 and 20 01 35																
34.	Wood cintaing hazardous substances	20 01 37*	t	0,000	0,000	0,000	0,000	0,040	0,000	0,000	0,000	0,250	9,390	0,000	0,000	9,680	Waste water proof poles- black water- proofing
35.	Wood other than in 20 01 37	20 01 38	t	0,000	0,000	0,000	0,000	0,150	0,000	0,000	0,000	1,200	1,400	0,000	0,000	2,750	Waste water proof poles- green water- proofing
36.	Bulky waste	20 03 07	t	0,000	0,000	0,000	0,000	0,030	0,000	0,000	0,000	0,200	0,0000	0,000	0,000	0,230	Old joinery, etc



3.2.4. Surface, Groundwater and Soil Monitoring

In DA Kraljevo, surface, ground waters and soil were not monitored in 2018.

3.3. Working Environment Monitoring, Health and Safety

2018 Occupational Health and Safety Reports include the following activities:

Working environment monitoring

- working environment noise measurements
- working environment electromagnetic fields
- working environment parameters
- Safety
 - training
 - injuries
- Health

3.3.1. Working Environment Monitoring

Working environment noise measurement

Noise measurements in working environment were not performed in 2018.

Electromagnetic fields in working environment

Electromagnetic fields measurements were not performed in 2018.

Working environment parameters

In 2018 working environment parameters were measured in facilities of branches for DA Kraljevo and it is done:

- Testing of working environment parameters for summer period was carried out in all branches of DA Kraljevo;
- Testing of working environment parameters for winter period was carried out in the following branches with additional plants:
 - Valjevo,
 - Kraljevo,
 - Kruševac,
 - Novi Pazar,
 - Užice,
 - Čačak.

3.3.2. Occupational Safety

Training

Training of employees is carried out in accordance with the Occupational Safety Qualification and Knowledge Improvement Program. Knowledge testing of the employees on the positions with increased risk is performed every fifth year in accordance with Risk Assessment Act.

Training of employees is shown in Table191, also inculding the training of new employees, as well as knowledge testing of employees for naarrowly professional occupations.



DISTRIBUTION AREA KRALJEVO						
Training of employees in 2018		-				
Branch/Facility	Number of	For tra	aining	Tra	ined	
	employees	Number	%	Number	%	
ED Aranđelovac	35	05	400.00	05	400.00	
Health and Safety training		35	100,00	35	100,00	
ED Valjevo	50					
Health and Safety training	52	52	100,00	49	94,23	
	l					
ED Jagodina	74					
Health and Safety training	74	74	100,00	72	97,30	
ED Kraljevo			1 4 9 9 9 9		400.00	
Health and Safety training	70	70	100,00	/0	100,00	
Fire protection training		70	100,00	36	51,43	
ED Riusevac	99	00	100.00	00	100.00	
		99	100,00	99	100,00	
ED Lazarevac						
Health and Safety training	- 45	45	100.00	45	100.00	
			,		,	
ED Loznica	<u></u>					
Health and Safety training	63	63	100,00	53	84,13	
	·					
ED Novi Pazar					-	
Health and Safety training	30	39	100,00	39	100,00	
Training for project managers and orderers		20	100,00	20	100,00	
Fire protection training		39	100,00	39	100,00	
ED UZICE	124	104	100.00	100	76.40	
Fina protoction training	134	134	100,00	102	10,12	
Fire protection training		134	100,00	134	100,00	
ED Cačak						
Health and Safety training	124	124	100,00	124	100,00	
Fire protection training		85	68,55	85	100,00	
ED Šabac	/3				-	
Health and Safety training	40	43	100,00	34	79,07	
		1				
HQ	125	105	1 4 9 9 9 9	(00		
Health and Safety training		125	100,00	100	80,00	
Health and Safety training	903	903	100,00	822	91,03	
I raining for project managers and orderers	903	20	2,21	20	100,00	
Fire protection training	903	328	36,32	294	89,63	

Work injuries

Data on work injuries in 2018 are given in Table 192.



DISTRIBUTION AREA KRALJEVO

Work injuries in 2018											
	Number of	Work injuries in relation to the number of employees									
Branch/Facility	employees	Light	Light	Light	Light	Light					
ED Aranđelovac	35	2	0	0	2	5,71					
ED Valjevo	52	0	0	0	0	0,00					
ED Jagodina	74	1	0	0	1	1,35					
ED Kraljevo	70	0	0	0	0	0,00					
ED Kruševac	99	0	0	0	0	0,00					
ED Lazarevac	45	1	0	0	1	2,22					
ED Loznica	63	0	1	0	1	1,59					
ED Novi Pazar	39	0	0	0	0	0,00					
ED Užice	134	1	0	0	1	0,75					
ED Čačak	124	1	0	0	1	0,81					
ED Šabac	43	3	0	0	3	6,98					
HQ of DA	125	0	0	0	0	0,00					
TOTAL: DISTRIBUTION AREA KRALJEVO	903	9	1	0	10	1,11					

3.3.3. Health

Results of periodic examinations are given in Table 193.

DISTRIBUTION AREA KRALJEVO											
Work capability of employees in 2018											
	of is	F	Periodic ex	aminatio	on			Work ca	pability		
Branch/Facility	imber (Refer exam	red to ination	Exa Ref	mined/ erred	Сар	able	Lir cap	nited ability	Not capable	
	Nul	Број	%	Број	%	Број	%	Број	%	Бр ој	%
ED Aranđelovac	35	22	62,86	22	100,00	18	81,82	4	18,18	0	0,00
ED Valjevo	52	31	59,62	31	100,00	30	96,97	1	3,23	0	0,00
ED Jagodina	74	50	67,57	50	100,00	38	76,00	11	22,00	1	2,00
ED Kraljevo	70	42	60,00	42	100,00	34	80,95	7	16,67	1	2,38
ED Kruševac	99	61	61,62	61	100,00	52	85,25	9	14,75	0	0,00
ED Lazarevac	45	27	60,00	27	100,00	21	77,78	6	22,22	0	0,00
ED Loznica	63	52	82,54	52	100,00	48	92,31	4	7,69	0	0,00
ED Novi Pazar	39	36	92,31	36	100,00	29	80,56	7	19,44	0	0,00
ED Užice	134	91	67,91	88	96,70	75	85,23	10	11,36	3	3,41
ED Čačak	124	76	61,29	76	100,00	68	89,47	8	10,53	0	0,00
ED Šabac	43	34	79,07	34	100,00	27	79,41	7	20,59	0	0,00
HQ of DA	125	18	14,40	18	100,00	16	88,89	2	11,11	0	0,00
TOTAL:											
DISTRIBUTION	903	540	59,80	537	99,44	456	84,92	76	14,15	5	0,93
AREA KRALJEVO											

3.4. Public Complaints

In DA Kraljevo it was upon the public complaint from the residents living in the building where is located SS 10/0,4 kV-"Komitet 1" in Raška. Non-ionizing radiation was measured and the Study on measures for reducing the magnetic induction from SS 10/0,4 kV-"Komitet 1".



4. DISTRIBUTION AREA KRAGUJEVAC

The structure of all facilities and systems within DA Kragujevac is shown in table 194.

												Table 194
DISTRIBUT		REA K	RAGU	JEVA	C							
Facilities a	liu sys	lems	11 2010)								
		Powe	er disti	ributio	n Subs	station	IS		Dist	ribution net	work	ξε
Branch	110/10 KV	110/20 KV	110/35 KV	110/x/z KV	35/10 KV	20/0,4 KV	10/0,4 KV	Total:	Voltage level	Overhead in km	Cable in km.	Distribution netwo total length in kr
									110 kV	0,000	0,000	0,000
									35 kV	193,000	37,160	230,160
		E	ED KR	AGUJE	EVAC				20 kV	0,000	0,000	0,000
		-							10 kV	1.177,20	575,960	1.753,160
1,0 kV 0,000 0,000										0,000		
			1				r		0,4 KV	4.207,610	812,120	5.019,730
Total	1	0	1	5	14	0	904	925	Total	5.577,810	1.425,240	7.003,050
									110 kV	0,000	0,000	0,000
									35 kV	253,300	36,140	289,440
			FD PC	ŽARF	VAC				20 kV	0,000	0,000	0,000
									10 kV	1.051,224	221,86	1.273,084
									1,0 kV	0,000	0,000	0,000
			-				1		0,4 KV	4.086,789	467,585	4.554,374
Total	0	0	4	0	23	0	905	932	Total	5.391,313	725,585	6.116,898
									110 kV	2,060	0,000	2,060
									35 kV	179,552	30,040	209,590
					FVO				20 kV	0,000	0,000	0,000
					210				10 kV	844,389	213,220	1.057,609
									1,0 kV	0,000	0,000	0,000
			r –	1	1	1	1	1	0,4 kV	2.682,100	73,610	2.755,706
Total	1	0	4	0	26	0	966	997	Total	3.708,101	316,870	4.024,971
				•	•	•		1	110 kV	2,060	0,000	2,060
									35 kV	625,852	103,340	729,192
									20 kV	0,000	0,000	0,000
	JIAL:	01214	(IBO I I	UN AR		KAGUJ	EVAC		10 kV	3.072,813	1.011,040	4.083,853
									1,0 kV	0.000	0,000	0,000
									0,4 kV	10.976,499	1.340,575	12.317,074
TOTAL:	2	0	9	5	63	0	2.775	2.854	Total	14.677,224	2.467,695	17.144,919

4.1. Overview and Status of Permits

Overview and status of permits, licenses and other required approvals as well as new requests for obtaining permits in 2018 are presented in Table 195.



DISTRIBUTION AREA KRAGUJEVAC			
Permits Overview and Status in 2018	1		1
Branch	Obtained approvals and permits (Number and date)	Applications for obtaining new or extending existing permits	Note
		Г	
1 kV cable lines for connection of facilities in12 Cara Lazara Street on KP (cadastral plot) 2894 KO: KG 3	1/2018 23.01.2018.		Decision on works approval
10 kV cable from SS KG 005- to SS 10/0,4 kV no. 268 "Пetrovac I - samoposluga" Petrovac	ROP-KRG-1795-ISAW- 1/2018 30.01.2018.		Decision on works approval
1 kV cable lines for connection of facilities in 106 Kralja Milana IV Street on KP 9211/1 KO:KG 4	ROP-KRG-2007-ISAW- 1/2018 07.02.2018.		Decision on works approval
Construction SBTS no.200807 "Milanovic Real estate" Lužnice on KP 4762 KO Lužnice, with connection on DV (transmission line)	ROP-KRG-3433-ISAW- 1/2018 22.02.2018.		Decision on works approval
10 kV cable lines for connection of MBTS no. 806 "Lidl jezero" in Save Kovačević Street no number	ROP-KRG-29613-ISAW- 2/2017 26.10.2017.		Decision on works approval
1 kV cable lines for connection of facilities in 74 Dančićeva Street on KP 4919 KO:KG 3	ROP-KRG-5756-ISAW- 1/2018 13.03.2018.		Decision on works approval
1 kV cable lines for connection of facilities in 5 Branislava Nušića Street on KP 3024 KO:KG 3	ROP-KRG-5753-ISAW- 1/2018 14.03.2018.		Decision on works approval
1 kV cable lines for connection of facilities in 8 Stojana Protića on на KP 5021,5028,5360/3,5017 KO:KG 1	ROP-KRG-5759-ISAW- 1/2018 13.03.2018.		Decision on works approval
1 kV cable lines for connection of facilities in 31 Daničićeva Street on KP 4372/1 KO:KG 3	ROP-KRG-5414-ISAW- 1/2018 16.03.2018.		Decision on works approval
Relocation of 10 kV lines and construction of SS 10/0,42 kV for connection of facilities Novi zatvor in Petrovac on KP (cadastral plot) 3206/1 KO:KG4	ROP-KRG-6415-ISAW- 1/2018 29.03.2018.		Decision on works approval
1 kV cable lines for connection of facilities in Lazara Mićunovića Street no number (Duo pro inž.) on KP 9148/175 KO:KG 4	ROP-KRG-13094-ISAW- 1/2018 21.05.2018.		Decision on works approval
1 kV cable lines for connection of facilities in Lazara Mićunovića Street no number (Vid gradanja) on KP (cadastral.plot) 9148/175 KO:KG 4	ROP-KRG-13097-ISAW- 1/2018 23.05.2018.		Decision on works approval
1 kV cable lines for connection of facilities in 7 Obilićeva Street on Cadastr. plot 5321/1 KO:KG 3	ROP-KRG-13093-ISAW- 1/2018 24.05.2018.		Decision on works approval
Construction of 1 kV overhead line from SS 1028 "Trska" on KP 1600, 1599, 1598, 1590, and 3653 (part) KO Sipić	ROP-RAC-13102-ISAW- 1/2018 351-413/2018-IV-02-1 25.05.2018.		Decision on works approval
Construction of SBTS no.200811 "Zeželj-Antenski stub" on KP 894 KO Trmbas and 1 kV cable lines for antenna pillar Žeželj.	ROP-KRG-13717-ISAW- 1/2018 30.05.2018.		Decision on works approval
Construction of 10 kV underground lines from MBTS, no. 200500 to MBTS no. 200199	ROP-KRG-17145-ISAW- 1/2018 25.06.2018.		Decision on works approval
Construction of 10 kV underground lines from MBTS no. 200199 to SS no. 200287 and from SS no. 200199 to SS no. 200170	ROP-KRG-17143-ISAW- 1/2018 21.06.2018.		Decision on works approval



Construction of 10 kV underground lines from separator no. 302 to SS 287	ROP-KRG-17140-ISAW- 1/2018 27.06.2018.	Decision on works approval
Construction of 10 kV underground lines from SS 35/10 kV "Sobovica" to 10 kV switchgear yard on cadastr. plot no. 4762 KO Lužnice	ROP-KRG-18479-ISAW- 1/2018 02.07.2018.	Decision on works approval
1 kV Cable lines for connection of facilities in no number on KP 2533/1 KO:KG 3 (Kamatović)	ROP-KRG-19700-ISAW- 1/2018 17.07.2018.	Decision on works approval
1 kV Cable lines for connection of facilities in 60-64 Kralja Milana Street on KP 9352, 9353, 9354 and 9355 KO:KG 3	ROP-KRG-19710-ISAW- 1/2018 13.07.2018.	Decision on works approval
1 kV Cable lines for connection of facilities in 34 Milovana Gušića on KP 3611, 3612, 3613 KO:KG 3	ROP-KRG-19785-ISAW- 1/2018 16.07.2018.	Decision on works approval
Construction of underground lines 10 kV from existing SBTS to compact SS 815	ROP-KRG-22030-ISAW- 1/2018 01.08.2018.	Decision on works approval
Construction of MBTS 35/10 kV 2x12,5 MVA "Sobovica" on cadastral plot. No. 2/4 KO Desimirovac	ROP-KRG-17073-ISAW- 2/2018 30.07.2018.	Decision on works approval
Construction of 35 line to the existing pillar, DV KG001- KG 05 to SS 35/10 "Sobovica"	ROP-KRG-22650-ISAW- 1/2018 08.08.2018.	Decision on works approval
1 kV cable lines for connection of facilities in 11-13 Vojvode Putnika Street on KP 3157/1 KO:KG 3	ROP-KRG-22893-ISAW- 1/2018 13.08.2018.	Decision on works approval
Construction of KBTS SS 10/0,42 kV / kV, 630kBA, no. 200815 "Sobovica" on KP4366/3 KO Lužnice and underground cable line 10 kV for connection of transformer station	ROP-KRG-23290-ISAW- 1/2018 14.08.2018.	Decision on works approval
1 kV Cable lines for connection of facilities in 52 Kralja Milana IV Street on KP 9361 KO:KG 4	ROP-KRG-22906-ISAW- 1/2018 15.08.2018.	Decision on works approval
1 kV cable lines for connection of facilities in 9-11 Bogoljuba Gligorijevića Street on KP 4443, 4439/2, 4437/2, 4437/1 KO:KG 3	ROP-KRG-22904-ISAW- 1/2018 15.08.2018.	Decision on works approval
1 kV cable lines for connection of facilities in 6 Dragog Barjaktarevića on KP 10530 KO:KG 4	ROP-KRG-22889-ISAW- 1/2018 17.08.2018.	Decision on works approval
Construction of underground lines of 10 kV from SS 35/10 kV KG 07 Batočina to SS 10/0,42 kV no. 221629 "Grah automative"	ROP-BAT-23694-CPI- 1/2018 351-122/18-08 22.08.2018.	Decision on works approval
1 kV cable lines for connection of facilities in 49 Dragoljuba Milovanovića Bene Street on KP 2266/1 and 4803 KO:KG 3	ROP-KRG-24747-ISAW- 1/2018 27.08.2018.	Decision on works approval
Construction of SBTS no. 200810 "Lazarevići" on kp 4602 KO Čumić with connection of 10 kV overhead lines and 1 kV switchgear LV lines	ROP-KRG-25796-ISAW- 1/2018 05.09.2018.	Decision on works approval
1 kV cable lines for connection of facilities in 8 Tanaska Rajića Street on KP 2885 and 2945 KO:KG 3	ROP-KRG-26731-ISAW- 1/2018 12.09.2018.	Decision on works approval
Relocation of existing RO и MRO in front of the hotel "Kragujevac" with 1 kV connection lines.	ROP-KRG-26729- ISAWHA-2/2018 31.10.2018.	Decision on works approval
Construction of SBTS no. 231085 "VODOVOD" Donja Rača, on cadastral. plot 3262/5 KO Donja Rača with 10 kV cable lines	ROP-RAC-304710- ISAWHA-2/2018 01.11.2018.	Decision on works approval
1 kV cable lines for connection of facilities in 68 Daničićeva on KP 4917 KO:KG 3	ROP-KRG-33377-ISAW- 1/2018 07.11.2018.	Decision on works approval



Cabling the part of 10 kV transmission line and construction of overhead DV (transmission line) for connection to SS 814 "Jelofina" in Dragoljuba Đorđevića Street	ROP-KRG-34363-ISAW- 1/2018 19.11.2018.	Decision on works approval
1 kV cable lines for conne.of facilities in 113 Knez Mihaila Street on Cadastral plot. KP 9834/1 and 9850 KO:KG 3	ROP-KRG-34648-ISAW- 1/2018 21.11.2018.	Decision on works approval
1 kV cable lines for conne.of facilities in 10 Kazimira Veljković Street on KP 9479 KO:KG 4	ROP-KRG-34858-ISAW- 1/2018 22.11.2018.	Decision on works approval
Construction of SBTS no. 200814 "Jelofina", on CP 1216/8 KO KG 4 in "Dragoljuba Đorđevića" Street	ROP-KRG-32465-ISAW- 1/2018 22.11.2018.	Decision on works approval
Construction of MBTS no. 200817 "Denino brdo- stanovi" Kragujevac on CP 4412/25 KO:KG 4 and 10 kV underground lines for connection of SS	ROP-KRG-35383-ISAW- 1/2018 28.11.2018.	Decision on works approval
1 kV cable lines for connection of business facilities in Miodraga Vlajića Šuke Street (Zona Servis 1)- Banja komerc Bekament on CP 10456/3 KO:KG 4	ROP-KRG-36222-ISAW- 1/2018 22.11.2018.	Decision on works approval
1 kV cable lines for connection of facilities in 78 Vojvode Putnika Street on CP 10540/1 KO:KG 4	ROP-KRG-36827-ISAW- 1/2018 17.12.2018.	Decision on works approval
Construction of SBTS no. 200813 "Sabanta- Prnjavor", on CP 227 KO Gornja Sabanta	ROP-KRG-36829-ISAW- 1/2018 17.12.2018. ROP-KRG-36829-GR- 2/2018 21.12.2018.	Decision on works approval
10 kV underground overhead line for connection of SBTS 10/0,42 kV, 400 kVA, no. 200818 "Norman" in Kormanu	ROP-KRG-37439-ISAW- 1/2018 20.12.2018.	Decision on works approval
ED SMEDEREVO		
MBTS 10/0,4kV "VODANJ 7" Smederevo with connection of 10 kV underground line	ROP-SMD-21350-ISAW- 4/2018 dated on 15 March 2018	Decision on works approval
MBTS 10/0,4kV "Mala Krsna 6" Smederevo with connection of 10 kV underground line	ROP-SMD-20985- ISAWHA- 2/2018 dated on 30 August 2018	Decision on works approval
MBTS 10/0,4kV "Šeškovac", Smederevo with connection of 10 kV underground line	ROP-SMD-27049-ISAW- 1/2018 од 17 Septembre 2018	Decision on works approval
Construction of 1 kV underground lines for connection of facilities in Cvijićeva Street (Tina trade building) in Smederevo, L2,L3 and L4	ROP-SMD-14264-ISAW- 12/2018 dated on 10 Octobre 2018	Decision on works approval
Construction of 1KV cable line in Velika Plana	ROP-VPL-1169-ISAW- 1/2018 dated on 22 January 2018	Decision on works approval
Construction of 10 KV connection line for MBTS 10/0,4kV "VODANJ 7" Smederevo	ROP-SMD-21350-ISAW- 4/2018 dated on 15 March 2018	Decision on works approval
Construction of 10 KV connection line for MBTS 10/0,4kV "Šeškovac" Smederevo	ROP-SMD-27049-ISAW- 1/2018 dated on 17 Septembre 2018	Decision on works approval
Construction of 10 KV connection line and 1 KV line in Petrijevskoj Street and in Balkanska Street, Smederevo	ROP-SMD-264-ISAWHA- 2/2018 dated on 24 January 2018.	Decision on works approval
ED POŽAREVAC	·	
STS (concrete pillar transformer station) 10/0,4 kV "Radoševac 2" and LV network 0,4 kV in Radoševac on cadastral plot no.2831/1, 2992, 2974, 2906, 2926 K.O. Usije and 2097 K.O. Radoševac	351-127/2018-03 dated on 19/6/2018	Decision on works approval



STS 10/0,4 kV "DM SAT" in Požarevac on cadastral plot no. 20815 K.O. Požarevac	04-351-336/2018 dated on 31/05/2018.	Decision on works approval
MBTS 10/0,4 kV power 1x630 (1000) kVA with additional 10 kV cable line and LV switchgear, on cadastral plot, no. 998, 997 and 607 K.O. Požarevac in Požarevac	04-351-599/2018 dated on 14/09/2018.	Decision on works approval
10 kV underground lines from SS 35/10 kV "Požarevac 2" to SS 10/0,4 kV "STOP ŠOP" in Požarevac on cadastral plot no. 7830/1, 7830/14, 7830/5, 7830/9, 7830/10, 7830/21, 7830/22, 7830/23, 7830/25, 7830/26, 7763/3, 7834/35 and 7834/8 K.O.Požarevac	04-351-24/2018 dated on 16/01/2018	Decision on works approval
Reconstruction – removing and protection of power lines on the part of the state road that coincides with Požarevački put Street in the settlement Veliko Gradište on cadastral plot no.4596, 4582/1, 3857, 3659, 3692/2 and 3694/1 K.O. Veliko Gradište	351-35/2018-06 dated on 02/02/2018	Decision on works approval
Installation of 10 kV cable line from SS 35/10 kV "Kostolac 1" to the new MBTS 10/0,4 kV "Pristanište" on cadastral plot no. 704, 436/1, 333/5 and 340/1 K.O. Kostolac city in Kostolac	04-351-777/2018 dated on 20/11/2018	Decision on works approval
Connection of a residential – business facility Basement+ ground+ 2 floor + attic (Po+ PR+2+Pk) on cadastral plot no. 1209/1 K.O. Požarevac and LV cable lines from KBTS 10/0,4 kV "Knez Lazar" in direction of Knez Lazar Street in Požarevac on cadastral plot no. 1209/1 and 821 both K.O. Požarevac in Požarevac	04-351-887/2018 dated on 26/12/2018	Decision on works approval
Extension of 10 kV distribution network from the existing substation SS 35/10 kV "Bratinac" to the planned MBTS 10/0,4 kV "1" on cadastral plots 660/2,661 and 718 all K.O. Bratinac, 347,350 and 348 all K.O. Nabrđe, 391, 1411, 1386, 1403, 1404, 1387, 1385, 1405, 1406, 1407, 2961, 2959/1, 2960, 1484, 1439, 1442, 1443, 1447, 1452, 1163, 1453 and 1438 K.O. Kasidol and 1500 and 1202 K.O. Bare	04-351-192/2018-1 dated on 29/10/2018	Decision on works approval
Construction of MBTS 10/0,4 kV, 2x1000 kVA "Privezište" with connecting 10 kV underground lines in the weekend settlement Beli Bagrem in Veliko Gradište on cadastral polot no. 2242/1, 2242/3, 2242/6, 2375, 2366/10, 2366/13, 2366/187, 2366/190, 2366/274, 2366/437 and 2366/385 all K.O.Veliko Gradište	351-197/2018-06 dated on 17/05/2018	Decision on works approval

4.2. Monitoring and Environmental Impact

Distribution area Kragujevac affects the environment by the following factors:

- Electromagnetic fields
- Environmental noise
- Waste
- Surface and ground waters quality
- Soil quality

4.2.1. Electromagnetic Field

Measurements of electric and magnetic fields size in the environment are carried out in 2018:

- 1. SS 35 /10 kW KG 01 Stanovljansko polje within permissible limits;
- 2. SS 35 /10 kW Požarevac 4- Busija within permissible limits;
- 3. SS 35 /10 kW Požarevac 1 Sever within permissible limits;
- 4. SS 35 /10 kW Smederevo 5- Leštar within permissible limits;
- 5. SS 35 /10 kW Smederevo 7- Papazovac- within permissible limits.



4.2.2. Environmental Noise

Measurements of environmental noise were not carried out in 2018.

4.2.3. Waste

Waste amounts generated in Distribution Area Kragujevac in 2018 are presented in Table 196.



DISTRIBUTION AREA KRAGUJEVAC Generated waste types in 2018 Branch TOTAL: DISTRIBUTION AREA KRAGUJEVAC Measurement unit Index number ED KRAGUJEVAC RULES DEFINING WASTE CATEGORIES, ITS TESTING AND ED SMEDEREVO ED POŽAREVAC CLASSIFICATION Note Published in "Official Gazete RS", № 56/2010 dated: 10th August è. 10.8.2010. године. AMOUNTS Mineral non chlorinated motor oils for gears and lubrication 13 02 05* 0.000 0.060 0.020 0.080 1. t Mineral non chlorinated oils for insulation and heat transportation 13 03 07* 0.000 0,040 0.000 0.040 Tariff oil 2. t Paper and cardboard packaging 15 01 01 1,000 1,000 Paper and cardboard 3. 1,000 3,000 15 01 03 1,000 0.200 3.000 4. 4,200 Wooden packaging Wooden packaging t Waste contaminated PVC packaging used for Packaging containing residual hazardous substances or is 0.000 0.000 0.000 0.000 t 5. chemicals 15 01 10* contaminated by hazardous substances Waste metal packaging from used oils and lubricants t Absorbents, filter materials (including oils filters not specified otherwise), wiping cloths, protection clothes, contaminated by Waste absorption agent with oil and heavy fuel oil 6. 15 02 02* 0.000 0.000 0.000 0.000 t hazardous substances 16 01 03 0.040 0,060 0.07 0,17 7. Waste tires Auto tires t 16 01 18 0.057 Copper residues (racks, ropes and wires) 8. Coloured metals 0.000 0.080 0.137 t 9. Transformers and condensers containing PCB 16 02 09* 0.000 0,000 0,000 Waste and used transformers with PCB oil t 0,000 Discarded equipment containing hazardous components other than 16 02 13* 0,000 1.000 0.000 10. t 1.000 Lead batteries specified in 16 02 09 to 16 02 12 11. Lead batteries 16 06 01* 0.000 0.020 0.000 0.020 Accu-bateries t 12. Ni-Cd batteries 16 06 02* 0.000 0.030 0.020 0.050 t 3,000 3,000 25,100 31,100 Old concrete poles, pole foundations 13. Concrete 17 01 01 t 17 01 03 0.030 0.080 0.030 0,140 (porcelain insulators) 14. Tiles and ceramics t 17 02 01 2.000 0.200 Wooden poles - green 15. Wood t 0.100 2.300 0,000 0.000 Cu, brass Copper, bronze, brass 17 04 01 0.600 16. 0.600 17. 17 04 05 0,800 1,000 1,060 2,860 Waste parts of SS Iron and steel

18.	Mixed metals	17 04 07	t	1,200	1,000	1,030	3,230	Mixed metals, Al Če rope
19.	Cables containing oil, oil tar and other hazardous substances	17 04 10*	t	0,050	0,070	0,080	0,200	
20.	Cables different than listed in 17 04 10	17 04 11	t	0,800	0,500	1,090	2,390	Waste aluminum cables
21.	Soil and stones containing dangerous substances	17 05 03*	t	0,000	10,140	0,000	10,140	Oily soil
22.	Waste clothing and footwear	20 01 10	t	0,000	0,180	0,000	0,180	
23.	Fluorescent tubes and other waste containing mercury	20 01 21*	t	0,000	0,001	0,002	0,003	
24.	Discarded electric and electronic equipment other than specified in 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	t	0,000	0,000	0,040	0,040	Discarded electronin and electric equipment
25.	Discarded electric and electronic equipment other than specified in 20 01 21, 20 01 23 and 20 01 35	20 01 36	t	0,800	1,000	2,110	3,910	Electronic and induction meters, disconnectors, lamps and power switches
26.	Wood containing hazardous substances	20 01 37*	t	1,900	1,000	0,000	2,900	Impregnated wooden poles
27.	Wood other than specified in 20 01 37	20 01 38	t	0,500	2,000	0,300	2,800	Commercial waste



4.2.4. Surface, Ground Waters and Soil Monitoring

Monitoring of surface and groundwater as well as monitoring of soil in 2018 was not carried out.

4.3. Working Environment Monitoring, Occupational health and Safety

2018 Occupational Health and Safety Reports include the following items:

Working Environment Monitoring

- Working environment noise measurements
- Working environment electromagnetic fields
- Working environment parameters
- Safety
 - training of employees
 - work injuries
- Health protection

4.3.1. Working Environment Monitoring

Working environment noise measurements

There were no working environmental noise measurements performed in 2018.

Working environment electromagnetic fields

Measurements of electromagnetic field level were not performed in 2018.

Working environment parameters

Working environment parameters are presented in Table 197.

			Table 197
DISTRIBUTION AREA KRAGUJEVAC			
Working environment parameters in 2018	3		
	 Liightning measurements and parameters of microclimate for 2018 winter period are performed in the working environment. 		
ED Kragujevac	 Testing of employees with non-ionizing radiation as well as the measurements of strength of electromagnetic field and magnetic induction of low frequencies are performed. 	-	-
	 Liightning measurements and parameters of microclimate for 2018 winter period are performed in the working environment. 		
ED Požarevac	 Testing of employees with non-ionizing radiation as well as the measurements of strength of electromagnetic field and magnetic induction of low frequencies are performed. 	-	-



	 Liightning measurements and parameters of microclimate for 2018 winter period are performed in the working environment. 		
ED Smederevo	 Testing of employees with non-ionizing radiation as well as the measurements of strength of electromagnetic field and magnetic induction of low frequencies are performed. 	-	-

Note: Testing of other working envirnoment parameters in 2018. were not carried out.

4.3.2. Occupational Safety

Training

Training data are given in Table198.

DISTRIBUTION AREA KRAGUJEVAC					
Training in 2018					
Propoh Distribution area Krequiavaa	Number of	For t	raining	Trained	
Branch Distribution area Kragujevac	employees	N⁰	%	Број	N⁰
Occupational health and safety training	68	68	100,00	68	100,00
Elektrodistribucija Požarevac	60	60	100.00	60	100.00
Occupational health and safety training	00	00	100,00	00	100,00
Elektrodistribucija Smederevo	75	75	100.00	75	100.00
Occupational health and safety training	15	75	100,00	/5	100,00
DA HQ	93	93	100,00	93	100,00
TOTAL: DISTRIBUTION AREA KRAGUJEVAC	296	296	100,00	296	100,00

Work injuries

The status of injuries for 2018 is presented in Table 199.

Table 199

Table 198

DISTRIBUTION AREA KRAGUJEVAC								
Work injuries in 2018								
Branch /Facility	Number of	Injuries related to the number of employees						
Branch /Facility	employees	Light	Тешке	Light	Укуп.	Light		
ED Kragujevac	68	1	1	0	2	2,94		
ED Požarevac	60	0	1	0	1	1,67		
ED Smederevo	75	2	0	0	2	2,67		
DA HQ	93	0	1	0	1	1,07		
TOTAL: DISTRIBUTION AREA KRAGUJEVAC	296	3	3	0	6	2,03		

4.3.3. Health

Periodical medical examinations of employees are shown in Table 200.



DISTRIBUTION AREA K	RAGUJEVAC												
Work capability of empl	Work capability of employees in 2018												
	Number of	Рі	Previous and periodical examinations					Work capability					
Branch /Facility	employees	Referred to examination		Examined		Capable		Limited capability		Not capable			
		No.	%	No.	%	No.	%	No.	%	No.	%		
ED Kragujevac	68	42	61,76	41	97,62	28	68,29	12	29,27	1	2,44		
ED Požarevac	60	48	80,00	48	100,00	38	79,17	6	12,50	4	8,33		
ED Smederevo	75	53	70,67	53	100,00	49	92,45	4	7,55	0	0,00		
DA HQ	93	12	12,90	12	100,00	11	91,67	1	8,33	0	0,00		
TOTAL: DISTRIBUTION AREA KRAGUJEVAC	296	155	52,36	154	99,35	126	81,82	23	14,94	5	3,25		

4.4. Public Complaints

There were no public environmental complaints in 2018 in DA Kragujevac.



5. DISTRIBUTION AREA NIŠ

The structure of all facilities within the system of Distribution Area Niš is presented in table 201.

DISTRIBU	DISTRIBUTION AREA NIS												
Facilities a	Facilities and systems in 2018												
			Power o	listribut	ion sub	stations	5		Length of Power distribution network in km.				
Branch	110/10 KV	110/20 KV	110/35 KV	110/x/z KV	35/10 KV	20/0.4 KV	10/0.4 KV	Total:	Voltage level	Overhead in km	Cable in km.	Distribution network total length in km	
ED ZAJEČAR									110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV	0,000 578,590 0,000 2.222,200 0,000 5.187,480	0,000 18,440 0,000 408,810 0,000 268,470	0,000 597,030 0,000 2631,010 0,000 5.455,950	
Total	0	0	10	2	51	0	1663	1726	Total	7.988,270	695,720	8.683,990	
ED PROKLUPLJE								110 kV 35 kV 20 kV 10 kV 1.0 kV 0.4 kV	0,000 172,680 0,000 752,220 0,000 2.098,850	0,000 9,900 0,000 87,250 0,000 93,860	0,000 182,580 0,000 839,470 0,000 2.192,710		
Total	0	0	2	0	14	0	625	641	Total	3.023,750	191,010	3.214,760	
ED NIŠ									110 kV 35 kV 20 kV 10 kV 1.0 kV 0.4 kV	0,000 204,634 0,000 972,202 0,000 4.493,750	0,000 36,685 0,000 661,134 0,000 488,567	0,000 241,319 0,000 1.633,336 0,000 4.982,317	
Total	3	0	3	1	27	0	1483	1517	Total	5.670.586	1.186.386	6.856.972	
ED PIROT								110 kV 35 kV 20 kV 10 kV 1.0 kV 0.4 kV	0,000 184,000 0,000 740,280 0,000 1.349,340	0,000 32,550 0,000 96,430 0,000 154,350	0,000 216,550 0,000 836,710 0,000 1.503,690		
Total	0	0	3	0	19	0	505	527	Total	2.273,620	283,330	2.556,950	
ED LESKOVAC							110 kV 35 kV 20 kV 10 kV 1,0 kV 0,4 kV	0,000 339,026 0,000 1.617,700 0,000 3.751,100	0,000 1,580 0,000 272,054 0,000 142,300	0,000 340,606 0,000 1.889,754 0,000 3.893,400			
Total	2	0	3	2	32	0	1239	1278	Total	5.707,826	415,934	6.123,760	
ED VRANJ	IE	1	1			1	1	1	110 kV 35 kV 20 kV 10 kV 1.0 kV	0,000 126,500 0,000 1.463,500 0,000	0,000 13,500 0,000 190,200 0,000	0,000 140,000 0,000 1.653,700 0,000	



									0.4 kV	2.986,290	121,000	3.107,290
Total	2	0	1	3	11	0	963	980	Total	4.576,290	324,700	4.900,990
									110 kV	0,000	0,000	0,000
						35 kV	1.605,430	112,655	1.718,085			
										0,000	0,000	0,000
		IUIAL	. DISTR			NIS			10 kV	7.768,102	1.715,878	9.483,980
									1.0 kV	0,000	0,000	0,000
									0.4 kV	19.866,810	1.268,550	21.135,354
TOTAL	7	0	22	8	154	0	6478	6669	Total	29.240,342	3.097,080	32.337,422

Note: Data provided on 31st December 2018. Only power facilities owned by EPS Distribution are taken into account, while facilities owned by EMS, EPS, other users are facilities with split ownership on the territory of DA Niš are not taken into account.

5.1. Overwiev and Status of Permits

Review and statuses of permits, licenses and other required approvals as well as new requests for obtaining permits in 2018 are presented in Table 202.

			Table 202
DISTRIBUTION AREA NIŠ			
Overview and Permits Status in 2018			
Branch	Obtained approvals and permits (Number and Date)	New applications for obtaining new or extending existing permits	Note
ED ZAJEČAR			
Decision on usage permit TS 110/35/10 kV Sokobanja	351-04-01373/2018- 14 10.09.2018.		Sokobanja
Decision on works approval on the investment maintenance of mixed CONNECTION LINE from SS 35/10 kV "Negotin 2" – SS 10/0,4 kV "Fekalna 2" – TS 10/0,4 kV "Karađorđeva" – TS 10/0,4 kV "Moravska"	351-2193/2018-IV/02 09.01.2019		Negotin
Decision on works approval on the investment maintenance of LV network "Nestorov potok" – terminal C in Šarbanovac	351-7-69/18-III/05 08.01.2019		Bor
Decision on works approval on the investment maintenance of LV network "Buturov potok 1" – terminal 2 in Metovnici	351-2-71/18-III/05 16.11.2018		Bor
Decision on works approval on the investment maintenance of LV network "Beljevina 1" – terminal C in Zlot	351-7-68/18-III/05 08.01.2019		Bor
Decision on works approval on construction STS 10/0,4 kV "Lenovac 2" with connection of 10 kV DV (transmission line) in Lenovac	IV/03 број 351- 6033/2018 17.12.2018		Zaječar
Decision on works approval on construction STS 10/0,4 kV "JANJA" in Janja	ROP-KNJ-33275- ISAW-1/2018 20.11.2018		Knjaževac (Kalna)
Decision on works approval on the investment maintenance of LV network "Nestorov potok" – terminal E in Šarbanovac	351-2-53/18-III/05 17.09.2018		Bor
Decision on works approval on the investment maintenance of LV network "Nestorov potok" – terminal D in Šarbanovac	351-2-56/18-III/05 17.09.2018		Bor
Decision on works approval on construction MBTS 10/0,4 kV "Rudna glava 1" in Rudnoj Glavi	351-761/2018-03 23.08.2018		Majdanpek
Decision on works approval on construction of double connecting cable line for SS 10/0,4 kV "Jezava" in Knjaževac	ROP-KNJ-38408- ISAW-1/2018 08.01.2019		Knjaževac
Decision on works approval on the investment maintenance of transmission line 35 kV "Knjaževac – VINS" part of existing pillar no.51 to SS 35/10 kV "VINA"	ROP-KNJ-37158- ISAW-1/2018 21.12.2018		Knjaževac
Decision on works approval on construction of STS 10/0,4 kV and of the feeder underground EE line 0,4 kV for connection of RBS TELENOR "Borsko jezero" in Bor	351-6-4/18-III/05 25.06.2018		Bor



Decision on works a LV network 0,4 kV f Nikoličevo" in Niko	approval on the investment maintenance of for connection of RBS VIP ličevo	IV/03 број 351- 1712/2018 15 06 2018		Zaječar
Decision on works a and reconstruction 35 kV "Zaječar 2 – I Boljevac in Boljevac	approval on the dislocation of existing pillars on the part of the existing transmission line a Boljevac" on CP. 3037/2 and 4908/1 KO	351-1316/2018-III-02 30.07.2018		Boljevac
ES NIŠ				
		351-04-02996/2017-		
Decision on works a	approval SS 110/35/10 kV Niš 15 - Doljevac	14 04.04.2018.		Doljevac
Decision on works a	approval on the part of transmission line	351-475/2017-06		Nič
(DV) 35 kV Ostrovic	ca -Dolac	07.11.2018.		1115
Decision on legaliza "Tržnica Duvanište"	ation of LV swithcgear from SS10/0,4 kV to the new SRO-a	351-1/3080-2016-06 dated 04.01.2018.		
Decision on legaliza	ation of LV cable and underground line	351-1/20987-2010-06		
from SS 10/0,4 kV ,	Žarka Zrenjanina 2"	dated 25.12.2018.		
Decision on works a	approval on construction of STS 10/0,4 kV	351-622/2018-06		
"Naselje Vrtište 2" v	vith connection of 10 kV cable line	dated 10.08.2018.		
Decision on works a	approval on construction of STS 10/0,4 kV	351-123 dated		
TU/U,4 KV "Capijina	c 4 with connection of 10 kV cable line	13.07.2018.		
and 10 kV network	approval on construction of 10 kV cable line	351-587/2018-06		
to Somborska Stree	and 0,4 kV nom Comjonnatejevacke Street	dated 18.07.2018.		
Decision on works a	approval on construction of SS 10/0.4 kV	351-1007/2018-06		
"Novi Niš 6" with co	nnection of 10 kV lines	14.11.2018.		
Decision on works a	approval on the extension of LV network	351-109/2018-06		
from SS 10/0,4 kV ,	Jelašnica Hanovi"	dated 28.02.2018.		
Decision on works a	approval on construction of the new LV	351-945/2018-00		
terminal from SS 10)/0,4 kV "Užička 2"	dated 26.10.2018.		
Decision on works a terminal from SS 10	approval on construction of the new LV)/0,4 kV "Mokranjčeva 2"	351-731/2018-06 dated 30.08.2018.		
Реш Decision on w	orks approval on construction of the new LV	351-765/2018-06		
terminal from SS 10)/0,4 kV "Stojana Novakovića"	dated 10.09.2018.		
Decision on works a sixth LV terminal fro new SRO-a	approval on construction for extension of the om SS 10/0,4 kV "Niška Banja Crkva" to the	351-499/2018-06 од 29.06.2018.		
Decision on works a	approval on construction for extension of the	351-118 ол		
first LV terminal from	m SS 10/0,4 kV "Knežica" and the	24.07.2018.		
construction of the i	new SRO-a	251 200/2010 00		
terminal from SS 10	approval on iornation of the new LV	10 05 2018		
Decision on works	approval on construction of the seventh LV	351-10/2018-06		
terminal from ss 10	/0,4 kV "Žarka Zrenjanina 2" – replacement	dated 22		
of the pillars no.1 a	nd no.2 and laying of cables	february2018		
ED PROKUPLJE				
Construction of 10 I	V connection line and BSTS 10/04 kV	351-665/2017-05		
Beloljin The solar w	ith LV switchgear network	04.12.2017		Prokupije
Upgrading of LV ne	twork in settlement Sokolica – Investment in	351-663/2018-05		Prokuplio
progress		25.10.2018		Flokupije
Construction of BS	rS Toponica Most – Investment in progress	351-580/2018-05 19.09.2018		Prokuplje
Reconstruction of L Investment in progr	V network in village Novo selo near Džigoljo ess	351-670/2018-05 1.10.2018		Prokuplje
Construction of LV	network in Džepnici	III-02-351-793/17		Prokuplie
		23.11.2017		rokupije
Reconstruction of L village Velika Plana	V network in Borjanska reka in the area of	351-187/2018-05 17.04.2018		Prokuplje
ED PIROT			•	
1				



Construction of LV cable line from SS 100,4 kV, ydäarister fro the facility Formational ideale (Decision on works approval on construction) 03-y-361-7820/2018 from 16.112018. Pirot Upgrading of LV overhead network for RSS VIP NH 82 (Decision on works approval on construction) 23.04.2018. Bela Palanka Construction of NoV Insw tim exampcion construction) 03-y-361-7820/2018 from 26.102018. Pirot Ins e again (Decision on works approval on construction) 03-y-361-7820/2018 from 26.102018. Pirot Construction of NOV as my varied on construction) 03-y-361-7820/2018 from 26.02018. Pirot Construction STS Pakleštica (Site information) 03-y-361-7820/2018 from 19.02018. Pirot Construction of STS Pakleštica (Decision on works approval on construction) 03-y-361-7820/2018 from 19.012018. Pirot Upgrading of LV network in area of Gnjlan 6 (Decision on works approval on construction) 03-y-361-7820/2018 from 19.012018. Pirot ED LESKOVAC 2000-67.014.002.014.002 Bela Palanka for 19.012018. Pirot Construction of TL 35 kV "Vlasotinee – Tegešnica", Vlasotince Municipality 20018.016.014.014.014.014.014.014.014.014.014.014	Construction of MBTS "Lavanda" – Tamnjanica (Decision on works approval on construction)	351-63/2018-IV/02 from 16.05.2018.	Bela Palanka
Upgrading of LV overhead network for RBS VIP NI 4182 351-422018-14 from Dimitrovgrad (Decision on works approval on construction) 20 construction of 100 V line with measuing circuit on STS C. breg 351-1402018. W/02 Bela Palanka 2 (Decision on works approval on construction) 033-351-6802018 Pirot Construction of 100 V kV variant with connection of 10 kV from 16.08.2018 r.og. Pirot Construction STS PakeStica (Ste information) 03-3351-675-16 from Pirot Construction of STS PakeStica (Decision on works approval on construction) 03-3351-677-672018 Pirot Construction of STS Bodynas (Decision on works approval on construction) 03-3351-677-672018 Pirot Construction of STS Bodynas (Decision on works approval on construction) 03-11.2018. Pirot Construction of STS Bodynas (Decision on works approval on construction) Construction of STS Bodynas (Decision on works approval on construction) Bela Palanka ED LESKOVAC ED LESKOVAC Vlasotince – 42018, from 4202.02Pi- Cran Trava Decision on construction permit for TL 35 kV "Vlasotince – 42018, from 4202.02Pi- Cran Trava Sastav Reka", Crna Trava Municipality Go.32018 ROP-VLS-561-WA- Certificate on works	Construction of LV cable line from SS 10/0,4 kV "Vašarište1" to the facility Forma ideale (Decision on works approval on construction)	03-У-351-7820/2018 from 16.11.2018.	Pirot
Construction of 10 kV line with measuring circuit on STS C. herg 351-14/02/318-1/02 Bela Palanka Construction of 100 4 kV, Varmont' with connection of 10 kV 03-3501676-16 from Pirot Construction of 100 A kV, Varmont' with connection of 10 kV 03-3501676-16 from Pirot Construction of STS PakeBica (Decision on works approval on construction) 03-3501676-16 from Pirot Construction of STS PakeBica (Decision on works approval on construction) 03-351-7976/2018 Pirot Construction of STS Borjana (Decision on works approval on construction) 351-12/018.1/V02 Bela Palanka Construction of STS Borjana (Decision on works approval on construction) 351-12/018.1/V02 Bela Palanka Construction of STS Borjana (Decision on works approval on construction) 351-12/018.1/V02 Bela Palanka ED LESKOVAC ROP-VLS-561-CPIH- Viasotince Viasotince Decision on construction permit for TL 35 kV "Viasotince - ROP-VLS-561-WA- Viasotince 4/2016, from 23/012.8.2012.0.8 Crim Tava S0012018. Decision on construction permit for TL 35 kV "Viasotince - S02/018.6.751 Crea Trava S0210-016.7.1018.1/02.8.2.0.2014.8.2.0.2014.8.2.0.2014.8.2.0.2014.8.2.0.2014.8.2.0.2014.8.2.0.2014.8.2.0	Upgrading of LV overhead network for RBS VIP NI 4182 Dimitrovgrad (Decision on works approval on construction)	351-42/2018-14 from 23.04.2018.	Dimitrovgrad
2 (Decision on works approval on construction) 1001.2 in 0.2 10.2 0.5 Pirot Construction of STS Pakeštica (Site information) 0.3 -335.6859/2018 fpm Pirot Construction of STS Pakeštica (Site information) 0.3 -335.6859/2018 fpm Pirot Construction of STS Pakeštica (Site information) 0.3 -350.675.18 fpm Pirot Construction of STS Pakeštica (Site information) 0.3 -351.6712/2018 fpm Pirot Construction of STS Pakeštica (Decision on works approval on construction) 0.3 -351.6712/2018 fpm Pirot Construction of STS Daplas (Decision on works approval on construction) 0.3 -351.6712/2018 fpm Pirot Construction of STS Daplas (Decision on works approval on construction) 0.3 -12018 fbm Decision on construction permit for TL 35 kV "Viscotince – Decision on construction permit for TL 35 kV "Viscotince – ROP-VLS-561-CPIH- Viscotince Decision on construction permit for TL 35 kV "Viscotince – 12018 fbr 331- Viscotince Tegošnica", Viscotince Municipality 602018-05, from Municipality Municipality Sastar Reka", Crma Trava Municipality 0.5 0.3 2018. Crma Trava Sastar Reka", Crma Trava Municipality 0.5 0.6 2018. Decision on works approval on	Construction of 10 kV line with measuring circuit on STS C. breg	351-140/2018-IV/02	Bela Palanka
line sogow (Decision on works approval on construction) from 16.08.2018 rog. Prot Construction of STS Pakleštica (Site information) 03.350/675-18 from 03.11.2018. Pirot Construction of STS Pakleštica (Decision on works approval on construction) 03.350/675-18 from 02.11.2018. Pirot Upgrading of LV network in area of Grijlan 6 (Decision on works approval on construction) 03.351-67122018 from 40.09.2018. Pirot Construction of STS Bakeston on works approval on construction) 03.14.2018. Pirot Decision on construction permit for TL 35 kV "Vlasotince – Tego\$nica", Vlasotince Municipality ROP-VLS-561-CPIH- 22018, Br:03.351- 42018.00 Vlasotince Municipality Decision on construction permit for TL 35 kV "Vlasotince – Tego\$nica", Vlasotince Municipality ROP-VLS-561-WA- 62018-015, from 62018-016, from 69/2018, from 12018, Br:351- 62012-016, from 69/2018, from 1207.2018. Vlasotince Municipality Certificate on works approval for TL 35 kV "Tego\$nica - Tego\$nica", Vlasotince Municipality ROP-VLS-561-WA- 22018, from 1207.2018. Crna Trava Municipality Decision on works approval for TL 35 kV "Tego\$nica - Tego\$nica", Vlasotince Municipality ROP-LES-20216- 1207.2018. Crna Trava Municipality Decision on works approval on construction of LV distribution system from TS 100,4 kV "Suvar zikwic", in Leskovac ROP-LES-20216- 19756/18-02, from 3107/2018, Br:351- 19756/18-02, from 3107	Construction of 10/0.4 kV "Varmont" with connection of 10 kV	03-Y-351-6869/2018	Pirot
Construction STS Pakleštica (Site information) 03-350/675-18 from 03/12/018 Pirot Construction of STS Pakleštica (Decision on works approval on construction) 03-351-77/6/2018 (mo 27/12/2018) Pirot Construction of STS Pakleštica (Decision on works approval on construction) 03-351-77/6/2018 (mo 27/12/2018) Pirot Construction of STS Borjana (Decision on works approval on construction) 03-351-77/6/2018 (mo 40.9.2018) Pirot ED LESKOVAC Str1/2018/R5-561-CPIH- 2018, Br.03-351- 42018, from 2301 2018. Belia Palanka Decision on construction permit for TL 35 kV "Vlasotince – Tegosinca", Vlasotince Municipality ROP-VLS-561-CPIH- 2018, Br.03-351- 42018, Grom 2301 2018. Vlasotince Municipality Decision on construction permit for TL 35 kV "Vlasotince – Tegosinca", Vlasotince Municipality ROP-VLS-561-WA- 42018, Br.03-351- 902018, from Municipality Vlasotince Municipality Certificate on works approval for TL 35 kV "Vlasotince – Egosinca", Vlasotince Municipality ROP-VLS-6402-WA- 2018, Br.231- 2018, Br.231- 2019, Gr.23122- 107. Crity of Leskovac Decision on works approval on construction of LV distribution system from TS 100,4 kV "Work Pilade", in Leskovac ROP-LES-20216- 107/6618-02, from 30.06.2018. City of Leskovac<	line водом (Decision on works approval on construction)	from 16.08.2018.год.	
Construction of STS Pakleštica (Decision on works approval on construction) 03-351-7976/2018 Pirot Upgrading of LV network in area of Gnjilan 6 (Decision on works approval on construction) 03-37-351-6712/2018 Pirot Construction OT STB Dorjana (Decision on works approval on construction) 03-37-351-6712/2018 Pirot Construction OT STB Dorjana (Decision on works approval on construction) 03-37-351-6712/2018 Pirot ED LESKOVAC Storman and the storman approval on construction permit for TL 35 kV "Vlasotince – Tegošnica", Vlasotince Municipality ROP-VLS-561-CPIH-22018, Br.03-351-42018, Br.03-51-42018, Br.03-51	Construction STS Pakleštica (Site information)	03-350/675-18 from 03.11.2018.	Pirot
Upgrading of LV network in area of Gnjilan 6 (Decision on works approval on construction) 09/3/351-6712/2018 Pirot Construction of STS Borjana (Decision on works approval on construction) 351-1/2018-1/002 Bela Palanka ED LESKOVAC Form 19.01.2018. Bela Palanka Decision on construction permit for TL 35 kV "Vlasotince – Tegošnica", Vlasotince Municipality ROP-VLS-561-CPIH- 22018, Br.03-351- 4/2018, rom Vlasotince Municipality Decision on construction permit for TL 35 kV "Tegošnica- Sastav Reka", Crna Trava Municipality ROP-VLS-561-WA- 4/2018, rom Vlasotince Municipality Certificate on works approval for TL 35 kV "Tegošnica- Tegošnica", Vlasotince Municipality ROP-VLS-561-WA- 4/2018, Br.03-351- 6/2018-05, from Vlasotince Municipality Certificate on works approval for TL 35 kV "Tegošnica - Sastav Reka", Crna Trava Municipality ROP-CITR-4802-WA- 2/2018, Br.03-351- 6/2018-06/1, from Vlasotince Municipality Decision on works approval on construction of LV distribution system from TS 100, 4 kV "Jovan Živkovi", in Leskovac ROP-LES-20216- ISAW-1/2018, Br.351- 1910/18-02, from 31.07-2018. City of Leskovac Decision on works approval on construction of LV distribution system from TS 100,4 kV "Jovan Živkovi", in Leskovac ROP-LES-20216- ISAW-1/2018, Br.351- 1910/18-02, from 31.07-2018. City of Leskovac Decision on works approval on construction of extension of LV system from TS 100,4 kV	Construction of STS Pakleštica (Decision on works approval on construction)	03-У-351-7976/2018 from 27.12.2018.	Pirot
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	"Smiljević 2" with conn. line 10 kV in village Smiljević	ISAW-1/2017	Vranje



Decision on works approval on construction cable line 10 kV: Preševo-Centar, Preševo-Karadak, Omladinska-Gnjilanska, in Preševo	ROP-PRE-29705- ISAWHA-2/2017		Preševo
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5.2. Monitoring and Environmental Impact

Distribution Area Niš affects the environment by following factors that are currently not completely covered by the monitoring:

- Electromagnetic fields
- Environmental noise
- Waste
- Surface and groundwater quality
- Soil quality

5.2.1. Electromagnetic Fields

Environmental electromagnetic fields measuring was carried out in 2018 at the territory of SS 110/35 kV Vranje 1, SS 110/35/10 kV Vranje 2, SS 110/35 kV Pirot 1, TC 110/35 kV Pirot 2, SS 110/35 kV Dimitrovgrad, SS 110/35 kVAleksinac, SS 110/35 kV Niš 3, SS 110/10 kV Niš 10, SS 110/35/10 kV Niš 13, SS 110/35 kV Niš 1, SS 110/10 kV, Niš 8, SS 110/10 kV Niš 5, SS 110/35/10 kV Leskovac 1, SS 110/10 kV Leskovac 6, SS 110/10 kV Leskovac 4, SS 110/35/10 kV Vlasotince, SS 110/35 kV Jablanica, SS 110/35/10 kV Vladičin Han, SS 110/10 kV Preševo. The measured results (parameters) show that electormagnetic (ionized) fields are not harmuful, i.e. the obtained results are within acceptable limits

5.2.2. Environmental Noise

Environmental Noise measuring at the territory of DA Niš was not carried out during 2018.

5.2.3. Waste

Waste production in 2018 is presented in Table 203 according to the Serbian waste management regulation.



DIST	DISTRIBUTION AREA NIŠ										
Defi	ned waste categories in 20	18									
No.	Rules defining waste categories, its testing and classification Official Gazette of RS No 56/10 dated: 10th August 2010	Index number	Unit	ED ZAJECAR	ED PROKUPLJE	Bra SIN CE	nch ED PIKOT	ED LESKOVAC	ED VRANJE	DISTRIBUTION AREA NIS	NOTE
		40			1		AMOUN	rs	1	r	
1	Mineral non-chlorinated motor oils, oils for gears and lubrication oils	13 02 05*	t	0,000	0,000	0,700	0,000	0,000	0,000	0,700	Motor oil
2	Mineral non-chlorinated oils for insulation and heat transfer	13 03 07*	t	0,000	0,000	7,137	0,230	0,000	0,000	7,367	Transformer oil
3	Waste not otherwise specified	13 08 99*	t	0,000	0,000	0,000	0,500	0,000	0,000	0,500	Oily soil and absorbents
4	Wooden packaging	15 01 03	t	0,000	0,000	7,021	0,500	0,000	0,000	7,521	Wooden packaging
5	Waste tires	16 01 03	t	0,000	0,000	0,000	0,100	0,000	0,149	0,249	Car and truck tires
6	Discarded vehicles not containing fluids or other hazardous components	16 01 06	t	0,000	0,000	0,000	7,900	0,000	0,000	7,900	Old vehicles without hazardous fluids
7	Ferrous materials	16 01 17	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Switchers and disconnectors
8	Hazardous components other than specified in 16 01 07 - 16 01 11 and 16 01 13 and 16 01 14	16 01 21*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Waste vehicles components
9	Discarded equipment containing hazardous components other than specified in 16 02 09 - 16 02 12	16 02 13*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Transformers. cable heads
10	Lead batteries	16 06 01*	t	0,000	0,000	1,129	0,020	0,000	0,000	1,149	Batteries
11	Ni-Cd batteries	16 06 02*	t	0,000	0,000	0,000	4,880	0,000	0,000	4,88	Ni-Cd batteries
12	Concrete	17 01 01	t	0,000	0,000	0,000	7,000	0,000	16,500	23,500	Old concrete columns. column foundation
13	Tiles and ceramics	17 01 03	t	0,000	0,000	0,000	0,200	0,000	0,000	0,200	Porcelain insulators
14	Copper, bronze, brass	17 04 01	t	0,000	0,000	0,000	0,950	1,982	0,000	2,932	Copper



15	Aluminium	17 04 02	t	0,000	0,000	9,042	0,200	0,738	2,300	12,280	Waste wire – aluminium-steel
16	Iron and steel	17 04 05	t	0,000	0,000	10,001	0,550	0,000	1,600	12,151	Pieces
17	Cables other than specified in 17 04 10	17 04 11	t	0,000	0,000	0,000	0,240	0,000	0,000	0,240	Waste cables with plastic protection
18	Paper and card board	20 01 01	t	0,000	0,000	0,000	0,900	0,000	0,000	0,900	Paper and card board
19	Fluorescent pipes and other waste containing mercury	20 01 21*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	Fluorescent pipes
20	Discarded electrical and electronic equipment other than specified in 20 01 21 and 20 01 23 containing hazardous substances	20 01 35*	t	0,000	0,000	0,000	0,300	0,000	0,000	0,300	Electricity meters
21	Discarded electrical and electronic equipment other than specified in 20 01 21, 20 01 23, 20 01 35	20 01 36	t	0,000	0,000	0,000	0,100	0,000	0,000	0,100	Computers, monitors
22	Wood containing hazardous substances	20 01 37*	t	0,000	0,000	0,008	7,200	0,000	40,500	47,708	Impregnated wooden poles

5.2.4. Surface, Ground Waters and Soil Monitoring

In 2018 soil monitoring was performed in the area of the transformes stations where are located the transformers contimanated by PCB (*within the project IPA 2008 "Environmental Protection in the Energy Sector"- Solving the problems of electrical appliances filled with PCB oils in PES*) at the following locations in ED Zaječar:

- SS 35/10κV Selište Zlot, location report no.IZ-0523-2.4-182 the ground was not contaminated.
- TC 35/10κV Kalna, location report no IZ-0523-2.4-179 the ground was not contaminated.
- SS 35/10kV Francuske barake, location report no IZ-0523-2.4-181- the ground was not contaminated
- TC 35/10κV Krepoljin, location report no IZ-0523-2.4-180 the ground was not contaminated

5.3. Working Environment Monitoring, Occupational Health and Safety

Occupational Health and Safety Reports for 2018 include following items:

- Working Environment Monitoring
 - working environment noise measurement
 - working environment vibration measurement
 - working environment chemical hazards measurement
 - working environment electromagnetic fields
 - working environment parameters
- Safety
 - training
 - work injuries
- Health



5.3.1. Working Environment Monitoring

Measurements and testing of working environment conditions were carried out according to the Occupational Safety and Health Law ("Official Gazette of RS", No 101/05) and the Rules on procedure of inspection and testing of working equipment and testing of working environment conditions ("Official Gazette of RS", No 94/06, 108/06 and 102/2015).

Working environment noise measurement

During 2018 in DA Niš has been conducted noise measurements in the working environment for winter period. The measured results show that the noise is not harmful, i.e. during the measuring, the obtained results are within the permissible values.

DISTRIBUTION AREA NIŠ Noise in working environment in 2018 Registered noise level in Permitted noise level Branch Location working premises in in (dB (A)) ((dB) (A)) Measurings were not performed in 2018 ED LESKOVAC ED PIROT Measurings were not performed in 2018 ED ZAJEČAR Measurings were not performed in 2018 **ED VRANJE** Measurings were not performed in 2018 ED PROKUPLJE Measurings were not performed in 2018 HQ building - office no. 307 Departement for Noise is not harmful security and safety management HQ building - office no.207 Noise is not harmful HQ building - office no.116 Noise is not harmful HQ building - Counter hall for customers Noise is not harmful HQ building - Counter hall (pay desk) Noise is not harmful HQ building - Counter hall (information) Noise is not harmful HQ building - office no. 7 Noise is not harmful HQ building - office no. 1 Noise is not harmful Old HQ building - office no. 6 Noise is not harmful Old HQ building - office no. 26/II-2 Occupational Noise is not harmful safety and health departement Old HQ building - office no. 21 Noise is not harmful ED NIŠ Old HQ building - office no. 8 Preventive and Noise is not harmful maintenance service departement Old HQ building - locksmith workshop 79 85 Old HQ building - employees break room Noise is not harmful Old HQ building - Departement for reception and Noise is not harmful control of measuring points Old HQ building - Departement for technical Noise is not harmful supervision and designing documents Old HQ building – warehouse 301 Noise is not harmful Old HQ building – warehouse office 301 Noise is not harmful Old HQ building – warehouse 302 Noise is not harmful Old HQ building - warehouse office 302 Noise is not harmful Old HQ building – auto repair workshop Noise is not harmful Old HQ building - chief's office Noise is not harmful

Measurement results are presented in Table 204.

• Working Environment Vibrations

During 2018 vibration measurings were performed in working environment in DA Niš. Measuring has been performed in the area of the Branch Niš, on the locations of business-service facility ,new and old HQ buildings workshop and warehouse. The measured results show that the vibrations are not harmful.

Measurement results are presented in Table 205.



DISTRIBUTION AR	EA NIŜ				
Vibrations in worki	ng environment in 2018				
Branch	Measuring location	Measured level of mechanical vibrations (m/s2)	Daily limit value for the exposure of the whole body (m/s2)		
ED LESKOVAC	Measurings were	e not performed in 2018			
ED PIROT	Measurings were	e not performed in 2018			
ED ZAJEČAR	Measurings were	e not performed in 2018			
ED VRANJE	Measurings were	e not performed in 2018			
ED PROKUPLJE	Measurings were	e not performed in 2018			
	HQ building - office no. 307 Departement for security and safety management	Vibrations are	e not harmful		
	HQ building - office no.207	Vibrations are	e not harmful		
	HQ building - office no.116	Vibrations are	e not harmful		
	HQ building – Counter hall for customers	Vibrations are	e not harmful		
	HQ building - Counter hall (pay desk)	Vibrations are	e not harmful		
	HQ building - Counter hall (information desk)	Vibrations are not harmful			
	HQ building - office no.7	Vibrations are not harmful			
	HQ building - office no.1	Vibrations are not harmful			
	Old HQ building – office no. 6	Vibrations are not harmful			
	Old HQ building – office no. 26/II-2 Occupational safety and health departement	Vibrations are not harmful			
	Old HQ building – office no. 21	Vibrations are not harmful			
ED NIŠ	Old HQ building – office no. 8 Preventive and maintenance service departement	Vibrations are not harmful			
	Old HQ building – locksmith workshop	Vibrations are not harmful			
	Old HQ building – employees break room	Vibrations are	e not harmful		
	Old HQ building – Departement for reception and control of measuring points	Vibrations are	e not harmful		
	Old HQ building – Departement for technical supervision and designing documents	Vibrations are not harmful			
	Old HQ building – warehouse 301	Vibrations are	e not harmful		
	Old HQ building – warehouse office 301	Vibrations are	e not harmful		
	Old HQ building – warehouse 302	Vibrations are	e not harmful		
	Old HQ building – warehouse office 302	Vibrations are	e not harmful		
	Old HQ building – auto repair workshop	Vibrations are	e not harmful		
	Old HQ building – chief's office	Vibrations are	e not harmful		

• Working Environment Chemical Hazards

During 2018 chemical hazards measurings were performed in working environment in DA Niš. Measuring has been performed in the area of the Branch Niš, on the location of business-service facility, new and old HQ building, workshops and warehouses. The measured results show that chemical hazards are not harmful. Measurement results are presented in the Table 206

DISTRIBUTION AREA NIŠ									
Chemical hazards in working environment in 2018									
Branch	Measuring location	Measured value (mg/m3)	LV (TLV) (mg/m3)						
ED LESKOVAC	Measurings were	not performed in 2018							
ED PIROT	Measurings were	not performed in 2018							
ED ZAJECAR	Measurings were	not performed in 2018							
ED VRANJE	Measurings were	not performed in 2018							
ED PROKUPLJE	Measurings were	not performed in 2018							
ED NIŠ	HQ building - office no. 307 Departement for security and safety management	Chemical hazards are not harmful							
	HQ building - office no.207	Chemical hazards a	are not harmful						



HQ building - office no.116	Chemical hazards are not harmful
HQ building – Counter hall for customers	Chemical hazards are not harmful
HQ building - Counter hall (pay desk)	Chemical hazards are not harmful
HQ building - Counter hall (information desk)	Chemical hazards are not harmful
HQ building - office no.7	Chemical hazards are not harmful
HQ building - office no. 1	Chemical hazards are not harmful
Old HQ building – office no.6	Chemical hazards are not harmful
Old HQ building – office no. 26/II-2 Occupational	Chemical bazards are not barmful
safety and health departement	
Old HQ building – office no. 21	Chemical hazards are not harmful
Old HQ building – office no. 8 Preventive and	Chemical hazards are not harmful
maintenance service departement	Chemical nazarus are not nanniu
Old HQ building – locksmith workshop	Chemical hazards are not detected
Old HQ building – employees break room	Chemical hazards are not harmful
Old HQ building – Departement for reception and control of measuring points	Chemical hazards are not harmful
Old HQ building – Departement for technical supervision and designing documents	Chemical hazards are not harmful
Old HQ building – warehouse 301	Chemical hazards are not harmful
Old HQ building – Warehouse office 301	Chemical hazards are not harmful
Old HQ building - warehouse 302	Chemical hazards are not harmful
Old HQ building – Warehouse office 302	Chemical hazards are not harmful
Old HQ building – auto repair workshop	Chemical hazards are not harmful
Old HQ building – chief's office	Chemical hazards are not harmful

Working environment electromagnetic fields

During 2018. electromagnetic fields measurings were performed in working environment in DA Niš. The measured results show that electromagnetic fields are not harmful, i.e. when measuring obtained results are within acceptable limits.

Measurement results are presented in the Table 207

					Table 207				
DISTRIBUTION AREA NIŠ									
Electromagnetic	Electromagnetic fields in working environment in 2017								
		Strength of e	electric field E	Density of ma	Density of magnetic flux B				
Branch	Subject testing	Measured V/m	Allowed V/m	Measured V/m	Allowed V/m				
ED PIROT	Measurings were not performed in 2018								
ED LESKOVAC	Measurings were not performed in 2018								
ED ZAJEČAR	Measurings were not performed in 2018								
ED VRANJE	Measurings were not performed in 2018								
ED PROKUPLJE	Measurings were not performed in 2018								
	HQ building - office no. 307 Departement for security and safety management	Harmful radiation are not harmful							
	HQ building - office no.207	Harmful radiation are not harmful							
	HQ building - office no.116	Harmful radiation are not harmful							
*	HQ building – counter hall for customers		Harmful radiation	on are not harmful					
ED NIS	HQ building – Counter hall (pay desk)		Harmful radiation	on are not harmful					
	HQ building - Counter hall (Information desk)		Harmful radiation	on are not harmful					
	HQ building - office no.7		Harmful radiation	on are not harmful					
	HQ building - office no.1		Harmful radiation	on are not harmful					
	Old HQ building – office no.6	Harmful radiation are not harmful							



Old administration building – office no.26/II-2 Occupational safety and health departement	Harmful radiation are not harmful
Old HQ building – office no.21	Harmful radiation are not harmful
Old HQ building office no Preventive and maintenance service departement	Harmful radiation are not harmful
Old HQ building – locksmith workshop	Harmful radiation are not harmful
Old administration building – employees break room	Harmful radiation are not harmful
Old HQ building – Departement for reception and control of measuring points	Harmful radiation are not harmful
Old HQ building – Departement for technical supervision and designing documents	Harmful radiation are not harmful
Old HQ building – warehouse 301	Harmful radiation are not harmful
Old administration building – Warehouse office 301	Harmful radiation are not harmful
Old HQ building – warehouse 302	Harmful radiation are not harmful
Old HQ building – Warehouse office 302	Harmful radiation are not harmful
Old HQ building – auto repair workshop	Harmful radiation are not harmful
Old HQ building – chief's office	Harmful radiation are not harmful

Working environment parameters

In DA Niš the testing of working environment parameters for winter period in was carried out by the Institute "1. Maj" – Niš.

Parameters monitoring of temperature, relative humidity and velocity for winter period in 2018 in DA Niš is given in Table 208.

					Table 20
DISTRI	BUTION AREA NIŠ				
Tempe	rature, relative humidity and velocity				
Branch	ED NIŠ				
N⁰	Measuring location			Note	
		t *C	Rv %	Vm/s	Comfort zone
1.	HQ building - office no. 307 Departement for security and safety management	23,5	34,7	0,05	У зони
2.	HQ building - office no.207	21,5	37,7	0,08	Within zone
3.	HQ building - office no.116	23,1	33,2	0,06	Within zone
4.	HQ building – Customer's counter hall	19,9	39,5	0,08	Within zone
5.	HQ building - Counter hall (pay desk)	20,9	40,1	0,07	Within zone
6.	HQ building – Counter hall (Information desk)	21,3	40,2	0,06	Within zone
7.	HQ building - office no.7	20,6	35,3	0,07	Within zone
8.	HQ building - office no.1	21,3	40,1	0,6	Within zone
9.	Old HQ building – office no. 6	19,5	35,6	0,06	Within zone
10.	Old HQ building – office no.26/II-2 Occupational safety and health departement	20,2	39,2	0,06	Within zone
11.	Old HQ building – office no.21	20,1	43,1	0,06	Within zone
12.	Old HQ building – office no.8 Preventive and maintenance service departement	19,8	41,2	0,05	Within zone
13.	Old HQ building – locksmith workshop	17,2	52,1	0,09	Within zone
14.	Old HQ building – employees break room	18,4	45,1	0,04	Within zone
15.	Old HQ building – Departement for reception and control of measuring points	17,7	57,5	0,07	Within zone
16.	Old HQ building – Departement for technical supervision and designing documents	19,8	46,3	0,06	Within zone
17.	Old HQ building – warehouse 301	15,1	60,9	0,06	Within zone
18.	Old HQ building – Warehouse office 301	18,2	59,0	0,06	Within zone
19.	Old HQ building – warehouse 302	15,2	56,3	0,07	Within zone



20.	Old HQ building – Warehouse office no.302	18,1	57,1	0,07	Within zone
21.	Old HQ building – auto repair workshop	16,6	48,4	0,09	Within zone
22.	Old HQ building – chief's office	20,7	43,2	0,06	Within zone
Branch	ED Pirot				
Temper	ature, relative humidity and velocity				
N⁰	Measuring location		Note		
		t *C	Rv %	Vm/s	Comfort zone
	Measurings were not performed in 2018				
Branch	ED Leskovac		1		
Temper	ature, relative humidity and velocity				
Nº	Measuring location		Monitoring		Note
		t *C	Rv %	Vm/s	Comfort zone
	Measurings were not performed in 2018				
Branch	ED Zaječar		1		
Temper	ature, relative humidity and velocity				
N⁰	Measuring location		Monitoring		Note
Nº	Measuring location	t *C	Monitoring	Vm/s	Note Comfort zone
N≌	Measuring location Measurings were not performed in 2018	t *C	Monitoring Rv %	Vm/s	Note Comfort zone
Nº Branch	Measuring location Measurings were not performed in 2018 ED Vranje	t *C 	Monitoring Rv %	Vm/s 	Note Comfort zone
№ Branch Temper	Measuring location Measurings were not performed in 2018 ED Vranje ature, relative humidity and velocity		Monitoring Rv % 	Vm/s 	Note Comfort zone
Nº Branch Temper Nº	Measuring location Measurings were not performed in 2018 ED Vranje ature, relative humidity and velocity Measuring location	t *C	Monitoring Rv % Monitoring	Vm/s 	Note Comfort zone Note
Nº Branch Temper Nº	Measuring location Measurings were not performed in 2018 ED Vranje ature, relative humidity and velocity Measuring location		Monitoring Rv % Monitoring Rv %	Vm/s Vm/s	Note Comfort zone Note Comfort zone
Nº Branch Temper Nº	Measuring location Measurings were not performed in 2018 ED Vranje ature, relative humidity and velocity Measuring location Measurings were not performed in 2018	t*C t*C 	Monitoring Rv % Gradient Stress Stres	Vm/s Vm/s 	Note Comfort zone Note Comfort zone
Nº Branch Temper Nº Branch	Measuring location Measurings were not performed in 2018 ED Vranje ature, relative humidity and velocity Measuring location Measurings were not performed in 2018 ED Prokuplje	t *C t *C 	Monitoring Rv % Monitoring Rv %	Vm/s Vm/s 	Note Comfort zone Note Comfort zone
Nº Branch Temper Nº Branch Temper	Measuring location Measurings were not performed in 2018 ED Vranje ature, relative humidity and velocity Measuring location Measurings were not performed in 2018 ED Prokuplje ature, relative humidity and velocity	t *C t *C 	Monitoring Rv % Monitoring Rv %	Vm/s Vm/s 	Note Comfort zone Note Comfort zone
Nº Branch Temper Nº Branch Temper	Measuring location Measurings were not performed in 2018 ED Vranje ature, relative humidity and velocity Measuring location Measurings were not performed in 2018 ED Prokuplje ature, relative humidity and velocity Measuring location	t *C t *C 	Monitoring Rv % Gradient Stress Stres	Vm/s Vm/s 	Note Comfort zone Note Comfort zone Note
Nº Branch Temper Nº Branch Temper	Measuring location Measurings were not performed in 2018 ED Vranje ature, relative humidity and velocity Measuring location Measurings were not performed in 2018 ED Prokuplje ature, relative humidity and velocity	t *C t *C 	Monitoring Rv % Monitoring Rv % Monitoring Rv %	Vm/s Vm/s 	Note Comfort zone Note Comfort zone Note Comfort zone
Nº Branch Temper Nº Branch Temper	Measuring location Measurings were not performed in 2018 ED Vranje ature, relative humidity and velocity Measuring location Measurings were not performed in 2018 ED Prokuplje ature, relative humidity and velocity Measuring location Measuring location Measuring location Measuring location Measuring location Measuring location Measuring location	t *C t *C 	Monitoring Rv % Monitoring Rv % Monitoring Rv % Monitoring	Vm/s Vm/s Vm/s	Note Comfort zone Note Comfort zone Note Comfort zone Note Note

Monitoring parameters for Illumination for the winter period of 2018 in DA Niš are given in Table 209.

					Table 209	
DISTRI	BUTION AREA niš					
Illumina	ation for winter period in 2018					
Branch	ED Niš					
			Monitoring		Note	
No	Measuring location		Average Illur	mination (Ix)		
142		Illumination	Measured	Request by SRPS	Illumination	
1.	HQ building - office no. 307 Departement for security and safety management	combined	152	150-300	sufficient	
2.	HQ building - office no 207	combined	164	150-300	sufficient	
3.	HQ building - office no.116	combined	153	150-300	sufficient	
4.	HQ building – Customer's counter hall	combined	160	150-300	sufficient	
5.	HQ building - Counter hall (pay desk)	combined	166	150-300	sufficient	
6.	HQ building – Counter hall (Information desk)	combined	155	150-300	sufficient	
7.	HQ building - office no.7	combined	151	150-300	sufficient	
8.	HQ building - office no.1	combined	264	150-300	sufficient	
9.	Old HQ building – office no.6	combined	285	150-300	sufficient	
10.	Old HQ building – office no. 26/II-2 Occupational safety and health departement	combined	153	150-300	sufficient	
11.	Old HQ building – office no. 21	combined	412	150-300	sufficient	



	Old HQ building – office no. 8 Preventive and				
12.	maintenance service departement	combined	151	150-300	sufficient
13.	Old HQ building – locksmith workshop	combined	153	80-150	sufficient
14.	Old HQ building – employees break room	combined	154	150-300	sufficient
	Old HQ building – Departement for reception and		400		
15.	control of measuring points	combined	420	150-300	sufficient
4.0	Old HQ building – Departement for technical		070	450.000	<i>.</i>
16.	supervision and designing documents	combined	376	150-300	sufficient
17.	Old HQ building – warehouse 301	combined	149	80-150	sufficient
18.	Old HQ building – Warehouse office 301	combined	400	150-300	sufficient
19.	Old HQ building – warehouse 302	combined	149	80-150	sufficient
20.	Old HQ building – Warehouse office 302	combined	431	150-300	sufficient
21.	Old HQ building – auto repair workshop	combined	326	80-150	sufficient
22.	Old HQ building – chief's office	combined	264	150-300	sufficient
Branch	ED Pirot	•		•	
			Monitoring		Note
Nº	Measuring location		Illuminat	ion (lx)	
		Illumination	Measured	sufficient	Illumination
	Measurings were not performed in 2018				
		ł	1		
Branch	ED Leskovac				
Branch			Monitoring		Note
Branch №	ED Leskovac Measuring location		Monitoring Illuminat	ion (lx)	Note
Branch №	ED Leskovac Measuring location	Illumination	Monitoring Illuminat Measured	ion (lx) sufficient	Note Illumination
Branch №	Measuring location Measurings were not performed in 2018	Illumination	Monitoring Illuminat Measured	ion (lx) sufficient 	Note Illumination
Branch № Branch	Measuring location Measurings were not performed in 2018 ED Zaječar	Illumination	Monitoring Illuminat Measured 	ion (lx) sufficient 	Note Illumination
Branch № Branch	Measuring location Measurings were not performed in 2018 ED Zaječar	Illumination	Monitoring Illuminat Measured Monitoring	ion (lx) sufficient 	Note Illumination Note
Branch № Branch	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location	Illumination	Monitoring Illuminat Measured Monitoring Illuminat	ion (Ix) sufficient 	Note Illumination Note
Branch № Branch	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location	Illumination Illumination	Monitoring Illuminat Measured Monitoring Illuminat Measured	ion (lx) sufficient ion (lx) sufficient	Note Illumination Note Illumination
Branch № Branch	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location Measurings were not performed in 2018	Illumination Illumination Illumination	Monitoring Illuminat Measured Monitoring Illuminat Measured 	ion (lx) sufficient ion (lx) sufficient	Note Illumination Note Illumination
Branch № Branch № Branch	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location Measurings were not performed in 2018 ED Vranje	Illumination Illumination Illumination	Monitoring Illuminat Measured Monitoring Illuminat Measured 	ion (lx) ion (lx) sufficient 	Note Illumination Note Illumination
Branch № Branch № Branch	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location Measurings were not performed in 2018 ED Vranje	Illumination Illumination Illumination	Monitoring Illuminat Measured Monitoring Illuminat Measured 	ion (Ix) ion (Ix) sufficient	Note Illumination Note Illumination Напомена
Branch Nº Branch Nº Branch	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location Measurings were not performed in 2018 ED Vranje Measuring location	Illumination Illumination	Monitoring Illuminat Measured Monitoring Illuminat Measured Мониторинг Illuminat	ion (Ix) sufficient ion (Ix) sufficient 	Note Illumination Note Illumination Напомена
Branch № Branch Branch	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location Measurings were not performed in 2018 ED Vranje Measuring location	Illumination Illumination Illumination Illumination Illumination Illumination	Monitoring Illuminat Measured Monitoring Illuminat Measured Мониторинг Illuminat Measured	ion (lx) sufficient ion (lx) sufficient ion (lx) sufficient	Note Illumination Note Illumination Напомена Illumination
Branch № Branch Branch	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location Measurings were not performed in 2018 ED Vranje Measuring location	Illumination Illumination Illumination Illumination Illumination Illumination Illumination Illumination	Monitoring Illuminat Measured Monitoring Illuminat Measured Mониторинг Illuminat Measured 	ion (lx) ion (lx) sufficient ion (lx) sufficient	Note Illumination Note Illumination Напомена Illumination
Branch Nº Branch Nº Branch Branch	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location Measurings were not performed in 2018 ED Vranje Measuring location Measuring location Measuring location ED Vranje Measuring location Measuring location ED Prokuplie	Illumination Illumination Illumination Illumination Illumination Illumination Illumination Illumination	Monitoring Illuminat Measured Monitoring Illuminat Measured Mониторинг Illuminat Measured 	ion (lx) sufficient ion (lx) sufficient ion (lx) sufficient 	Note Illumination Note Illumination Напомена Illumination
Branch Nº Branch Nº Branch Branch	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location Measurings were not performed in 2018 ED Vranje Measuring location Measuring location Measuring location ED Vranje Measuring location Measuring location Measurings were not performed in 2018 ED Prokuplje	Illumination I	Monitoring Illuminat Measured Monitoring Illuminat Measured Moниторинг Illuminat Measured 	ion (lx) ion (lx) sufficient ion (lx) sufficient 	Note Illumination Note Illumination Напомена Illumination
Branch Nº Branch Nº Branch Branch	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location Measurings were not performed in 2018 ED Vranje Measuring location Measuring location	Illumination Illum	Monitoring Illuminat Measured Monitoring Illuminat Measured Moниторинг Illuminat Measured Monitoring Illuminat	ion (Ix) sufficient ion (Ix) sufficient ion (Ix) sufficient	Note Illumination Note Illumination Hапомена Illumination Note
Branch Nº Branch Nº Branch Nº	Measuring location Measurings were not performed in 2018 ED Zaječar Measuring location Measurings were not performed in 2018 ED Vranje Measuring location	Illumination	Monitoring Illuminat Measured Monitoring Illuminat Measured Monitoring Illuminat Measured 	ion (lx) sufficient ion (lx) sufficient ion (lx) sufficient 	Note Illumination Note Illumination Напомена Illumination Note Illumination

5.3.2. Occupational Safety

Training

Training report is presented in Table 210.

					Table 210
DISTRIBUTION AREA NIŠ					
Training in 2018					
Brench/ Facility	Number of	Fo	or training	Tr	ained
Branch/ Facility	employees	N⁰	%	N⁰	%
ED Niš					
Knowledge testing in HSTP	136	37	27,21	37	100,00
		0	0	0	0
ED Leskovac					
Safety training	75	78	104,00	78	100,00
Safety training on overhead lines		0	0	0	0



ED Zaječar			-	_	
Safety training	124	73	58,87	73	100.00
Safety training-transfer to new position	124	5	4,03	5	100,00
Safety training on overhead lines		0	0	0	0
ED Vranje	-				1
Safety training - admission of employment	_	3	9,68	3	100,00
Safety training-transfer to new position	-	2	6,45	2	100,00
Annual knowledge testing in HSTP of employees for works					400.00
with increased risk		26	83,87	26	100,00
Safety training on work place pillar in danger zone 2 for	31	_		-	400.00
employees in Departement for reception and control of		(22 59	1	100,00
Sefety training of employees for works on new ladders	-		22,38		
employed in divison for recention and control of measuring		14		14	100.00
noints		17	45 16	17	100,00
			10,10		
ED Pirot					
Periodical testing of capability for OHS	31	20	64,52	20	100,00
	•				
ED Prokuplje					
Annual knowledge testing of employees for works on heights-	34	19	55.88	19	100.00
safety harness		15	55,00	10	100,00
	1	r			
Management DA Niš	-		1	1	1
	124				
TOTAL NUMBER OF TRAINING	G OF EMPLOYE	ES IN 20	18 DA NIŠ		
Safety training		154	27,75	154	100,00
Knowledge testing in OHS		102	18,38	102	100,00
Safety training on work place pillar in danger zone 2 for					
employees in Departement for reception and control of	666	7	1,26	7	100,00
measuring points	555				
Testing of employees in fire protection		0	0	0	0
Safety training-transfer to new position		7	1,26	7	100,00
Introduction to manual and risk: work on ladders		14	2,52	14	100,00

Note : Number of employees is calculated on 31st December 2018. During the year, the number of employees was higher, but it was gradually reduced, thus there are cases where the number of trained employees is higher than the number of employees, i.e. the percentage in the column "for training" exceeds 100%.

Aditional training which are not connected with permanently employed in DA Niš but which they were conducted in 2018 are presented in Table 211.

Table 211 **DISTRIBUTION AREA NIŠ** Additional trainings which are not connected with permanently employed in DA Niš but which they were conducted in 2018 Trained For training **Branch/Object** N⁰ % N⁰ % ED NIŠ Safety training for employees under the contract on temporary 0 0 0 0 works ED Zaječar Safety training for employees under the contract on temporary 3 100,00 3 100,00 works ED Pirot



Safety training for employees under the contract on temporary works	1	100,00	1	100,00
Training of employees from the department of technical services Pirot as support to management (Electricians on emergency)	4	100,00	4	100,00
Acquainting contractors with dangers and hazards, OHS measures and rules of conduct	42	100,00	42	100,00
Acquainting visitors and service providers with OHS measures and rules of conduct	35	100,00	35	100,00
Acquainting students and pupils at practice with OHS measures and rules of conduct	2	100,00	2	100,00
ED Vranie				
Safety training for employees under the contract on temporary			1	
works	5	100,00	5	100,00
on EEE of DSO	65	100,00	65	100,00
Acquainting employees from PES 'with risks while doing on EEE of DSO	67	100,00	67	100,00
Annual knowledge assessment of employees from OHS as a support to management	10	100,00	10	100,00
Acquainting visitors and service providers with OHS measures and rules of conduct	100	100,00	100	100,00
FD Prokuplie				
Safety training for employees under the contract on temporary works	5	100,00	5	100,00
Annual knowledge assessment of employees from the department of technical service Prokuplje as a support to management	10	100,00	10	100,00
Management DA Niš			1	
Management DA Mis		1	1	
works	0	0	0	0
Acquainting contractors with dangers and hazards, OHS measures and rules of conduct	286	100,00	286	100,00
Acquainting students and pupils at practice with OHS measures and rules of conduct		100,00	3	100,00
TOTAL: DISTRIBUTION AREA NIŠ				
Safaty training for employees under the contract on temporary				
works	14	100,00	14	100,00
I raining of employees from the department of technical services	4	100,00	4	100,00
Acquainting contractors with dangers and hazards, OHS measures and rules of conduct	328	100,00	328	100,00
Acquainting students and pupils at practice with OHS measures and rules of conduct	5	100,00	5	100,00
Acquainting visitors and service providers with OHS measures and rules of conduct	135	100,00	135	100,00
Acquainting employees from Agency with risks while doing on EEE of DSO	65	100,00	65	100,00
Acquainting employees from PES 'with risks while doing on EEE of DSO	67	100,00	67	100,00
Annual knowledge assessment of employees from OSH as a support to management	10	100,00	10	100,00
Annual knowledge assessment from OHS of employees from the departement of technical services as support to management	10	100,00	10	100,00
management				

Work injuries

The number of injuries in 2018 is presented in Table 212.



DISTRIBUTION AREA NIŠ						
Work injuries in 2018						
Number of Work injuries in relation to the number of employe						
Branch	employees	Light	Tough	Deadly	Total	%
ED Niš	136	0	0	0	0	0,00
ED Leskovac	75	1	0	0	1	1,33
ED Zaječar	124	0	0	0	0	0,00
ED Vranje	31	2	0	0	2	6,45
ED Pirot	31	0	0	0	0	0,00
ED Prokuplje	34	0	0	0	0	0,00
HQ DA Niš	124	0	0	0	0	0,00
TOTAL: DISTRIBUTION AREA	555	3	0	0	3	0,54

5.3.3. Health

Periodical medical examinations of employees, presented in Table 213. They are performed regularly for all new employed workers and workers on working places with special working conditions.

										Tabl	e 213
DISTRIBUTION AREA NIŠ											
Work capability of the employees in 2018											
	Periodic examination				Work capability						
Branch	mber o ployee	Referred to Examined		Capable		Limited capability		Incapable			
	Nu em	No.	%	No.	%	No.	%	No.	%	No.	%
ED Nis	136	92	67,65	87	94,57	79	90,80	6	6,90	2	2,30
ED Leskovac	75	49	65,33	49	100,00	48	97,96	1	2,04	0	0,00
ED Zajecar	124	71	57,26	71	100,00	47	66,20	23	32.39	1	1,41
ED Vranje	31	23	74,19	23	100,00	23	100,00	0	0,00	0	0,00
ED Pirot	31	18	58,06	18	100,00	13	72,22	5	27,78	0	0,00
ED Prokuplje	34	28	82,35	27	96,43	24	88,89	3	11,11	0	0,00
Management DA Niš	124	19	15,32	18	94,74	18	100,00	0	0,00	0	0,00
TOTAL DISTRIBUTION AREA NIS	555	300	54,05	293	97,67	252	86,01	38	12,97	3	1,02

5.4. Public Complaints

There were no public environmental complaints in 2018 in DA Niš.



APPENDIX 1 EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT ENVIRONMENTAL MODEL REPORT

Coal Production, Processing and Transportation Facilities

For each mining company:

- Summarize the Status of permits, licenses and other approvals required for each major facility (e.g. coal mine). Note any incidents of non-compliance with the applicable national environment, health and safety requirements.
- Identify any new permits required during reporting year or permits that will expire in less than a year and therefore require renewal.

Please provide data on the following parameters for each facility.

- Air Emissions (key air emissions, permitted limits, actual emissions)
- Solid wastes (type and quantity of waste)
- Water use (quantities of water used, permitted limits)
- Liquid effluents (key liquid effluents, permitted limits, actual effluents produced)
- Noise
- Summarize the health and safety record, including the accident rate and any initiatives implemented or planned during the reporting period, including training programs
- Summarize public complaints, if any, relating to the project, take steps to address these.

Power Generation Facilities

For each Power Plant:

- Summarize the status of permits, licenses or other approvals required for each plant. Note any incidents
 of non-compliance with the applicable national environment, health and safety requirements.
- Identify any new permits required during reporting year or permits that will expire in less than a year and therefore require renewal.

Please provide data on the following parameters for each plant:

Air Emissions

	Actual emissions	Limited values
Content of particulate matter		
CO ₂ (Sulphur Dioxide)		
NO _x (NO ₂) Nitrogen Oxides		

Identified negative impact on river flow and ecological system below the reservoir

- Solid Wastes (type and quantity of waste);
- Water Use (quantities of water used, permitted limits);
- Liquid effluents (key liquid effluents, permitted limits, actual effluents produced);
- Noise
- Summarize the Health and Safety record, including the accident rate and any initiatives implemented or planned during the reporting period, including training programs
- Summarize Public Complaints, if any, relating to the project, steps taken to address these.



Power Transmission

- Summarize the status of permits, licenses or other approvals required for each facility. Note any incidents of non-compliance with the applicable national environment, health and safety requirements.
- Identify any new permits required during reporting year or permits that will expire in less than a year and therefore require renewal.
- Summarize the health and safety record, including the accident rate and any initiatives implemented or planned during the reporting period, including training programs
- Summarize public complaints, if any, relating to the project, steps taken to address these.

Power Distribution

- Summarize the status of permits, licenses or other approvals required for each facility. Note any
 incidents of non-compliance with the applicable national environment, health and safety requirements;
- Identify any new permits required during reporting year or permits that will expire in less than a year and therefore require renewal.
- Summarize the health and safety record, including the accident rate and any initiatives implemented or planned during the reporting period, including training programs.
- Summarize public complaints, if any, relating to the project, steps taken to address these.


APPENDIX 2. SERBIAN ENVIRONMENTAL LEGISLATION

LAWS

- 1. Law on environmental protection "Official Gazette RS", No.135/2004, 36/2009, 36/2009- other law, 72/2009, 43/2011- Constitutional Court decision μ 14/2016, 76/2018, 95/2018 other law)
- 2. Law on Environmental Impact Assessment "Official Gazette RS", No. 135/04 and 36/2009)
- 3. Law on environmental impact strategic assessment ("Official Gazette RS", no 135/2004 and 88/2010)
- 4. Law on integrated environmental pollution prevention and control, ("Official Gazette RS", No.135/2004 and 25/2015)
- 5. Air protection law ("Official Gazette RS" no.36/2009 and 10/2013)
- 6. Law on noise environmental protection ("Official Gazette RS" no. 36/2009 and 88/2010)
- 7. Law on non-ionizing radiation protection ("Official Gazette RS", no. 36/2009)
- 8. Law on packaging and packaging waste ("Official Gazette RS", no. 36/2009, 95/2018)
- 9. Law on Biocidal Products ("Official Gazette RS", no. 36/2009, 88/2010 and 92/2011 and 25/2015)
- 10. Law on chemicals ("Official Gazette RS", no. 36/2009,88/2010, 92/2011 and 93/2012 and 25/2015)
- 11. Law on waste management ("Official Gazette RS", no. 36/2009, 88/2010 and 14/2016, 95/2018)
- 12. Law on Environmental Protection ("Official Gazette RS", no. 36/2009, 88/2010, 91/2010 14/2016, 95/2018)
- 13. Water Law ("Official Gazette RS", no. 30/02010, 93/2012 and 101/2016, 95/2018 and other law)
- 14. Law on meteorological and hydrological activities ("Official Gazette RS", no. 88/2010)
- 15. Law on protection and sustainable use of fish stocks, ("Official Gazette RS", No 128/2014, 95/2018)
- 16. Law on Mining and Geological Research ("Official Gazette RS", No 101/2015, 95/2018)
- Law on planning and construction ("Official Gazette RS", no. 72/2009, 81/2009- correction, 64/2010-Constitutional Court decision, 24/2011,121/2012, 42/2013 – Constitutional Court decision, 50/2013 – Constitutional Court decision, 98/2013 - Constitutional Court decision, 132/2014 and 145/2014,83/2018)
- 18. Agricultural Land Law ("Official Gazette RS", No. 62/2006, 65/2008 and 41/2009, 112/2015 μ 80/2017, 95/2018)
- 19. Law on forests ("Official Gazette RS", No. 30/2010, 93/2012 and 89/2015,95/2018)
- 20. Law on confirmation of the convention on access to information, public participation in decision-making and access to justice in environmental matters ("Official Gazette RS", No. 38/09, 8/2011)
- 21. Law on confirmation of the Protocol of the pollutants registration and release within the convention on access to information, public participation in decision-making and access to justice in environmental matters ("Official Gazette RS", No. 8/2011)
- 22. Occupational Safety and Health Protection Law ("Official Gazette RS", No. 101/2005 and 91/2015)7)

REGULATIONS

- Regulation on establishing the list of projects which require environmental impact assessment and list of projects which may require environmental impact assessment ("Official Gazette of the RS", No. 114/2008)
- 2. Regulation on noise indicators, limit values, method for assessment of noise indicators, disturbance and harmful environmental impact of noise ("Official Gazette of the RS", No.75/2010)
- 3. Air Quality Monitoring Conditions and Requirements Regulation ("Official Gazette RS", № 11/2010, 75/2010 and 63/2013)
- 4. Regulation on Emissions Limit Values of Pollutants in the Air from stationary sources of pollution other than combustion plants ("Official Gazette of the RS", No. 111/2015)
- 5. Regulation on the Methodology for Data Collection for the National Inventory of Unintentional Emissions of Persistent Organic Pollutants ("Official Gazette RS", No. 76/2010)
- 6. Regulation on the Methodology for Data Collection for the National Greenhouse Gases Inventory ("Official Gazette RS", No. 81/2010)



- 7. Regulation on ozone depleting substances management, as well as on conditions for license issuance to import and export of such substances ("Official Gazette", No. 114/2013, 23/2018, 44/2018 other regulation 95/2018 other regulation)
- 8. Regulation on zones and agglomerations classification ("Official Gazette RS", no. 58/2011 and 98/2012)
- 9. Regulation on determining program of air quality control in national network ("Official Gazette RS", no. 58/2011)
- Regulation on types of waste subject to thermal treatment, conditions and criteria for determination of location, technical and technological conditions for projecting, construction, equipping and work of the thermal waste treatment plants and handling of combustion residues ("Official Gazette of RS", No. 102/2010 and 50/2012)
- 11. Regulation on the landfill of waste ("Official Gazette RS", no. 92/2010)
- 12. Regulation on Non hazardous waste List for which the permit is not issued with the documentation accompanying trans-boundary shipments. ("Official Gazette", No.102/2010)
- 13. Regulation on determination of certain types of hazardous waste that can be imported as secondary raw material ("Official Gazette RS", no. 60/2009)
- 14. Regulation on products that become special waste streams after use, form of daily record on the amount and type of produced and imported products and annual report, manner and deadlines for submission of annual report to the persons liable, calculation criteria, amount of compensation and method for calculation and payment of compensation ("Official Gazette RS", no. 54/2010, 86/2011, 15/2012, 41/2013, 3/2014, 8/2014 and 31/2015, 44/2016)
- 15. Regulation on limit values of priority and priority hazardous substances polluting surface water and deadlines for their achievement ("Official Gazette RS", No. 24/2014)
- 16. Regulation on types of activities and facilities for which integrated permit is issued ("Official Gazette RS", No. 84/2005)
- 17. Regulation on content of the program for adaptation measures of the existing facilities or activities by prescribed conditions ("Official Gazette RS", No. 84/2005)
- Regulation on the criteria for determination of the best available techniques, for the implementation of quality standards, as well as for determination of limit values of emissions in integrated permit ("Official Gazette RS", No. 84/2005)
- 19. Regulation on establishing the program for dynamics of completing the application for integrated permit ("Official Gazette RS", No. 108/2008)
- 20. Regulation establishing a program of systematic soil quality monitoring, indicators for assessing the risk of soil degradation and remediation programs development methodology ("Official Gazette RS", № 88/2010, 30/2018)
- 21. Regulation on Establishing Criteria for Determining of the Status of Endangered Environment and Priorities for Sanitation and Remediation ("Official Gazette RS", No. 22/2010)
- 22. Regulation on the waste lists for trans-boundary shipments, content and layout of documents accompanying the transboundary transport of the waste with the instructions how they should be filled in ("Official Gazette RS", No. 60/2009)
- 23. Regulation on Determination of Activities with Impact on the Environment ("Official Gazette RS", No.109/2009 and 8/10)
- 24. Regulation on the Criteria for Determination of the Best Available Techniques, for the Implementation of Quality Standards, as well as for Determination of Limit Values in the integrated permit ("Official Gazette RS", No 84/2005)
- 25. Regulation on Content of the Program for Adaptation Measures of the Existing facilities or Activities by Prescribed Conditions ("Official Gazette RS", No. 84/2005)
- 26. Regulation on types of activities and facilities for which the integrated permit is issued ("Official Gazette RS", no.135/04 and 84/2005)
- 27. Decree on establishing the list of projects which require environmental impact assessment and list of projects which may require environmental impact assessment ("Official Gazette of the RS", No. 114/2008)



- 28. Regulation on amount and conditions for allocation of stimulation funds ("Official Gazette RS", No. 88/2009, 67/2010,101/2010,86/2011, 35/2012, 48/2012, 41/2013 и 81/2014, 30/2015, 44/2016, 43/2017, 45/2018)
- 29. Regulation on products that become special waste streams after use, form of daily record on the amount and type of produced and imported products and annual report, manner and deadlines for submission of annual report to the payers of such fees, calculation criteria, fee amount and manner of fee calculation and payment ("Official Gazette RS", no. 54/2010, 86/2011, 15/2012, 3/2014, 31/2015, 44/2016, 43/2017, 45/2018-other regulation, 67/2018 other regulation, 95/2018 other regulation)
- 30. Regulation on termination of the Regulation on way and procedures for management of waste containing asbestos ("Official Gazette RS", No. 74/10)
- 31. Regulation on the list of industrial facilities and activities which control emission of volatile organic compounds, on the value of volatile organic compounds at certain consumption of solvents and total allowed emissions, as well as the emission reduction scheme ("Official Gazette RS", No. 100/2011)
- 32. Regulation amending the air quality monitoring conditions and requirements regulation ("Official Gazette RS", No 11/10, 75/2010 μ 63/2013)
- 33. Regulation on the criteria and method for counting of the programs and projects being realized within the mechanism of clean development ("Official Gazette RS", No. 44/2010)
- 34. Regulation on emission limit values in waters and deadlines for the achievement thereof ("Official Gazette RS", No. 67/11 ,48/12 and 1/2016)
- 35. Regulation on emission limit values of polluting substances in surface and groundwaters and deadlines for their achievement (Official Gazette of the RS, no. 50/2012, 67/2011,48/2012, 1/2016)
- 36. Regulation on establishing the program for systematic testing of non-ionizing radiation levels in the environment for the period from 2017 to 2018. године ("Official Gazette RS", no. 105/2015)
- 37. Regulation on the content and methods of management of environmental information system, methodology, structure, common grounds, categories and levels of data acquisition, as well as the content of information the public is regularly and necessarily informed about ("Official Gazette RS", No. 112/09)
- 38. Regulation on termination of the Regulation on waste management ("Official Gazette RS", no 71/2010)
- 39. Regulation on determination of activities which performing affect to the environment ("Official Gazette of the RS, no. 101/2009, 8/2010)
- 40. Regulation on detailed conditions which should be fulfilled by beneficiaries of funds, on conditions and on methods of distribution of funds, on criteria and measures for evaluating the requests for the distribution of funds, on the method of monitoring the use of funds and contracted rights and obligations, and other Issues significant for the allocation and use of funds Green Fund("Official Gazette of the RS, no. 25/2018)
- 41. Regulation on management of greenhouse gases with fluorinated gases as well as the conditions for import and export of these gases.(" Official Gazzette RS" No 120/2013, 44/2018)
- 42. Regulation on methodology for the preparation of inventory of emissions and the projections of pollutants in the air (""Official Gazzette RS" No. 3/2016)
- 43. Regulation on measuring of the emission of air pollutants from stationary sources of pollution ("Official Gazzette RS" No. 5/2016)
- 44. Regulation on measurements of the emissions of pollutants in the air from stationary pollutants ("Official Gazzette RS" No. 6/2016)
- 45. Regulation on the establishment of the Packaging waste reduction plan for the period 2015-2019 ("Official Gazzette RS" No. 144/2014)
- 46. Regulation on the amount of fees, payers, as well as the manner of payment of fees for assessment and verification of data on biocidal products ("Official Gazzette RS" No 90/2015)
- 47. Regulation on the establishment of Annual Water monitoring program for 2008("Official Gazzette RS" No. 35/2018)
- 48. Regulation on the establishment of the Water management program in 2018 ("Official Gazzette RS" No. 13/2018, 52/2018, 94/2018)



49. Regulation on placing under control of the use and trade of wild flora and faune ("Official Gazzette RS" No. 31/2005, 45/2005, 22/2007, 38/2008, 9/2010, 69/2011, 95/2018)

RULEBOOKS

- 1. Rulebook stipulating the emission limit values, measuring and data recording methods and time limits ("Official Gazette RS", number 30/1997, 35/1997)
- 2. Rulebook on contents, appearance and method of keeping the public book of implemented procedures and taken decisions on environmental impact assessment, "Official Gazette RS", No. 692005)
- 3. Rulebook on public insight, presentation and public discussion about the EIA Study,("Official Gazette of the RS", No. 69/2005)
- 4. Rulebook on work of technical committee for environmental impact assessment study, ("Official Gazette of the RS", No. 69/2005)
- 5. Rulebook on contents of the request for necessity of environmental impact assessment and contents of the request for defining the scope and content of EIA Study ("Official Gazette of the RS", No. 69/2005)
- 6. Rulebook on contents of the Environmental Impact Assessment Study ("Official Gazette of the RS", No. 69/2005)
- 7. Rules on methods of noise measurement, content and scope of report on noise measurement "Official Gazette RS", No. 72/2010)
- 8. Rules on conditions which have to be complied by the expert organization for noise measurement, as well as on the documents submitted together with the request for authorization for noise measurement ("Official Gazette RS"; No. 72/2010)
- 9. Rules on methodology for determining of acoustic zones "Official Gazette RS", No. 72/2010)
- 10. Rules on content and methods for preparation of strategic noise maps and the manner of their presentation to the public ("Official Gazette RS", No. 80/2010)
- 11. Rules on methodology for preparation of action plans ("Official Gazette RS ", No. 72/2010)
- 12. Rules on manner of the exchange of information about the metering points in state and local network, measurement techniques, as well as the manner of the exchange of data obtained during the monitoring of air quality in state and local network ("Official Gazette RS", no. 84/2010)
- 13. Rulebook on contents of air quality plans ("Official Gazette of the RS", No. 21/2010)
- 14. Rulebook on contents of short-term air action plans ("Official Gazette of the RS", No. 65/2010)
- 15. Rules on categories, testing and classification of waste ("Official Gazette RS", No. 56/10)
- 16. Rules on form of document for movement of waste and instruction for its completion ("Official Gazette RS", No.114/2013)
- 17. Rules on form of request for the issuance of permit for treatment, i.e.waste storage, the reuse and disposal of waste ("Official Gazette RS", no. 38/18.
- 18. Rules on the content and the design of the permits for the storage, the treatment and disposal of hazardeous waste ("Official Gazette RS" No.96/2009)
- 19. Rules on the content, manner of record keeping and design of the register of issued permits for waste storage, treatment and disposal ("Official Gazette RS", no.95/2010)
- 20. Rules on the content of the certificate on exemption from the obligation to obtain the permit for of internal non-hazardous waste storage ("Official Gazette RS", no. 73/2010)
- 21. Rules on daily evidence form and annual waste report form with the instruction for its completion ("Official Gazette RS", No.88/2015)
- 22. Rules on the form of the document on hazardous waste transport, on the form of the previous report, the way of its delivery and instructions how to fill in the form ("Official Gazette RS" No.17/2017)
- 23. Rules on hazardous waste storage, packing and labelling method ("Official Gazette RS", no. 92/2010)
- 24. Rules on conditions, method and procedure for waste oil management, ("Official Gazette RS", No. 71/2010)
- 25. Rules on the way and procedure of old batteries and accumulators management ("Official Gazette RS", No. 86/10)
- 26. Rules on the way and procedure of waste tires management ("Official Gazette RS"; No.104/2009 and 81/2010)



- 27. Rules on manner and procedure for management end-of-life vehicles ("Official Gazette RS", No. 98/10)
- Rules on method and procedure for the management of waste fluorescent tubes containing mercury ("Official Gazette RS", No. 97/10)
- 29. Rules on the management the waste containing asbestos ("Official Gazette RS", no. 75/2010)
- 30. Rules on medical waste management ("Official Gazette RS", no. 78/2010)
- 31. Rules on conditions and way of collecting, transportation, storage and treatment of waste used as secondary raw material or for energy generating "Official Gazette RS ", No.98/2010)
- 32. Rules on methodology for collection of data on the content and amounts of municipal waste on the territory of local self-government unit ("Official Gazette RS", no. 61/2010)
- 33. Rules on the management with devices and waste containing PCB ("Official Gazette RS", no. 37/2011)
- 34. Instructions defining preventive measures for safe keeping, storage, i.e. use of extremely hazardous chemicals ("Official Gazette RS", no.6/2017)
- 35. Rules on import and export of extremely hazardous chemicals ("Official Gazette RS", 89/2010,15/2013 and 114/2014)
- 36. Rules on the content of the safety list ("Official Gazette RS", No. 100/11)
- 37. Rules on chemical registry ("Official Gazette RS", No.100/2011, 16/2012, 47/2012, 15/2013, 115/2013, 1/2015, 16/2016, 6/2017 и 117/2017, 44/2018, 7/2019)
- 38. Rules on bans and restrictions of production, placement on the market and use of chemicals ("Official Gazette of RS", no.90/2013, 25/2015, 2/2016 and 44/2017, 36/2018)
- 39. Rules on the criteria to identify substances as PBT or vPvB ("Official Gazette RS" no. 23/2010)
- 40. Rules on permits allowing transactions, i.e. on permits allowing the use extremely hazardous chemicals ("Official Gazette RS", no.29/2018)
- 41. Rules on detergents ("Official Gazette RS" no. 25/2015)
- 42. List of surfactants for which an approval has been issued or an act has been adopted allowing the use of surfactants in detergent in the EU and list of surfactants for which a request for approval has been rejected and surfactants banned in the EU ("Official Gazette RS" no. 94/2010)
- 43. Rules on the manner of chemical record keeping ("Official Gazette", no. 31/2011)
- 44. Rules on classification, packaging, labelling and advertising of certain chemicals and products ("Official Gazette RS", no. 59/2010, 25/2011 and 5/2012)
- 45. Rules on classification, packaging, labelling, and advertising of certain chemicals and products in line with globally harmonized classification and marking system of the UN ("Official Gazette RS", No. 105/2013,52/2017)
- 46. Rules on detailed conditions how to store hazardous chemicals in shops and the manner how to label those shops ("Official Gazette RS", No. 31/2011 and 16/2012)
- 47. Rules on the content and form of request for the issuance of water acts and content of the opinion in the procedure of water conditions issuance and the content of the report in the procedure of issuing of permits ("Official Gazette RS", no.72/2017, 44/2018)
- 48. Regulation on water information system that defines data collection, methodology, structure, categories and procedures, and form of information to be presented to public ("Official Gazette RS", no. 54/2011)
- 49. Rules on water facilities/ structures cadaster ("Official Gazette RS", no. 34/2011)
- 50. Rules on the content and manner of keeping the register of issued integrated permits ("Official Gazette RS" no. 69/2005)
- 51. Rules on the content, layout and manner of completing the application for integrated permit ("Official Gazette RS", no. 30/2006 and 32/2016, 44/2018)
- 52. Rules on the content and layout of integrated permit ("Official Gazette RS", no. 30/2006)
- 53. Rules on the methodology for the preparation of national and local register of pollution sources as well as the methodology for types, manners and deadlines of data collection ("Official Gazette RS", no. 91/2010 and 10/2013, 98/2016)
- 54. Rulebook on the limits of exposure to non-ionizing radiation ("Official Gazette of the RS", no. 104/2009)
- 55. Rulebook on the sources of non-ionizing radiation of special interest, types of sources, manner and period of their examination ("Official Gazette of the RS" No. 104/2009)



- 56. Rulebook on the content of records of the sources of non-ionizing radiation of special interest ("Official Gazette of the RS" No. 104/2009)
- 57. Rulebook on the content and appearance of the form of the report on systematic examination of the levels of non-ionizing radiation in the environment ("Official Gazette of the RS" No. 104/2009)
- Rulebook on conditions to be fulfilled by legal entities performing tasks of examination of the levels of non-ionizing radiation of the sources of special interest in the environment ("Official Gazette of the RS" No. 104/2009)
- 59. Rulebook on conditions to be fulfilled by legal entities performing tasks of systematic examination of the levels of non-ionizing radiation, and the manner and methods of systematic examination in the environment ("Official Gazette of the RS" No. 104/2009)
- 60. Rulebook on the methodology for the development of rehabilitation and remediation projects ("Official Gazette of the RS" No. 74/2015)

STRATEGIES

- 1. Waste Management Strategy for period 2010-2019 ("Official Gazette RS", № 29/2010)
- 2. The National Strategy for Sustainable Use of Natural Resources and Goods ("Official Gazette RS", № 33/2012)
- 3. National Environmental Approximation Strategy of the RS ("Official Gazette RS", № 80/2011)
- 4. Strategy of Cleaner Production Introduction in the RS ("Official Gazette RS", № 17/2009)
- 5. Strategy for Convention introduction on access to information, public participation in decision making, and access to justice in Environmental Matters The Aarhus Convention ("Official Gazette RS", № 103/2011)
- 6. National Sustainable Development Strategy ("Official Gazette RS", № 57/2008)
- National Strategy on the Inclusion of the Republic of Serbia into Clean Development Mechanism of the Kyoto Protocol for the Waste Management Sector, Agriculture and Forestry ("Official Gazette RS", № 8/2010)
- 8. Strategy of Mineral Resources Management in the Republic of Serbia by 2030
- 9. Biodiversity Strategy of the Republic of Serbia for the period 2011 2018 (Official Gazette of the RS, no. 13/2011)
- 10. National Strategy for Sustainable Use of Natural Goods and Resources ("Official Gazette of RS" no. 33/2012)
- 11. Energy Sector Development Strategy of the Republic of Serbia for the period by 2025 with Projections by 2030 ("Official Gazette of the RS", no. 101/2015)

PROVISIONS FROM OTHER AREAS APPLIED IN THE AREA OF ENVIRONMENTAL PROTECTION

Ratified International treaties of significance for the Republic of Serbia

- 1. Law on confirmation of the Kyoto Protocol with United Nations Framework Convention on Climate Change, "Official Gazette RS", No. 88/07
- 2. Law Ratifying the Convention on Environmental Impact Assessment in a Transboundary Context, ("Official Gazette RS", No. 102/2007)
- 3. Law on confirmation of the Stockholm Convention on Persistent Organic Pollutants "Official Gazette RS", No. 42/09
- 4. Law ratifying the Convention on Biological Diversity ("Official Journal of SRJ International Treaties ", No. 11/01)
- 5. Law ratifying the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("Official Journal of SRJ International Treaties ", No. 11/01)
- 6. Law ratifying the Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal ("("Official gazette of FNRY– International Treaties", № 2/99)
- 7. Law ratifying The United Nations Framework Convention on Climate Change, with Annexes ("Official Journal of SRJ International Treaties ", No. 2/97)



- The Montreal Protocol on Substances that Deplete the Ozone Layer ("Official Journal of SFRY -International Treaties", No. 16/90 "Official Journal of Serbia and Montenegro - International Treaties ", No. 24/04)
- 9. The Vienna convention for the protection of the ozone layer, with Appendices I and II ("Official Journal of SFRY International Treaties ", No. 1/90)
- 10. International Convention on bird protection ("Official Journal of SFRY- International Treaties ", No. 6/73)
- 11. Convention on swamps of international significance, especially as habitat of water birds ("Official Journal of SFRY International Treaties ", No. 9/77)
- 12. European Convention on the protection of animals in international transportation ("Official Journal of SRY "- International Treaties ", No. 1/92)
- 13. Convention on cooperation for the protection and sustainable use of the Danube River ("Official Journal of SCG"- International Treaties ", No. 4/2003)
- 14. Montreal amendment to Vienna Convention on substances damaging the ozone layer ("Official Journal of SCG- International Treaties ", No. 2/2004)
- 15. Regulation on fish stock and waters of the Danube between the Government of FNRY, National Republic of Bulgaria, the Romanian National Republic and the Union of Soviet Republics ("Official Journal of FNRY" International Treaties, No. 8/58)
- 16. Law ratifying the Convention for the protection of world cultural and natural heritage "Official Journal of SFRY" International Treaties, No. 8/74
- 17. Law ratifying the Convention for the Protection of Cultural Property in the Event of Armed Conflict "Official Journal of SFRY" International Treaties, No. 4/56
- 18. Law ratifying the Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property "Official Journal of SFRY" International Treaties, No. 50/73
- 19. Law ratifying the Vienna Convention on Civil Liability for Nuclear Damage "Official Journal of SFRY" International Treaties, No. 5/77
- 20. Regulation on ratification of the Convention on establishing European organization for plant protection "Official Journal of SFRY" International Treaties, No.12/57
- 21. Regulation on ratification of the International Plant Protection Convention "Official Journal of SFRY" International Treaties, No.7/55
- 22. Law Ratifying the Convention on Environmental Protection from Pollution of the Tisa River and its tributaries "Official Journal of SFRY" International Treaties, No.1/90
- 23. Law Ratifying the Convention on Long-range Trans-boundary Air Pollution "Official Journal of SFRY" International Treaties, No.11/86
- 24. Law Ratifying the Protocol with the Convention on Long-range Trans-boundary Air Pollution on Longterm Financing of the Cooperative Program for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) "Official Journal of SFRY "- International Treaties, No. 2/87
- 25. Law Ratifying The Montreal Protocol on Substances that Deplete the Ozone Layer ("Official Gazette of Serbia and Montenegro International Treaties, No. 24/04)
- 26. Law on confirmation of the amendments and supplements to the Convention on the Physical Protection of Nuclear Material (Official Gazette of the RS International Treaties, No. 04/ 2016)
- 27. Law on the Conventions adopted based on Versailles treaty 8 June 1919, and based on appropriate provisions of other treaties adopted on International labour conferences, held in Washington, Geneva and Genoa1919-1926) "Official Gazette of The Kingdom of Yugoslavia", No. 44 XBI/30
- 28. Regulation on Ratification of the Convention on Protection against Benzol Poisoning "Official Journal of SFRY "- International Treaties, No. 16/76
- 29. Law Ratifying the Convention for prohibition and control of professional risks caused by carcinogens substances and agents "Official Journal of SFRY "- International Treaties, No. 3/77
- 30. Law on prohibition of experiments with nuclear weapons into the atmosphere, cosmos and under water "Official Journal of SFRY "- International Treaties, No. 11/63)



- 31. Law Ratifying the Convention for prohibition of development, production and stockpiling of bacteriological (biological and toxic) weapons and their destruction "Official Journal of SFRY "- International Treaties, No. 43/74
- 32. Law Ratifying the Convention for protection of employees from professional risks in working environment caused by air pollution, noise and vibration "Official Journal of SFRY "- International Treaties, No. 14/82
- 33. Law Ratifying the Convention for occupational health, medical protection and working environment "Official Journal of SFRY "- International Treaties, No. 7/87
- 34. Law Ratifying the Convention for safe use of asbestos "Official Gazette SRJ "- International Treaties, No. 4/89
- 35. Law Ratifying the European Convention for the Protection of the Archaeological Heritage "Official Gazette SRJ "- International Treaties, No. 9/90
- 36. Law Ratifying the European Convention for the Protection of the Architectural Heritage "Official Gazette SRJ "- International Treaties, No. 4/91
- 37. Law Ratifying the Agreement between the Federal Government of the Federal Republic of Yugoslavia and the Government of the Russian Federation on cooperation in the field of environment protection and improvement "Official Gazette SRJ"- International Treaties, No. 6/96)



APPENDIX 3.ABBREVIATIONS

BOD	Biological Oxygen Demand
LEV	Limit Emission Value
MPC	Maximum Permissible Concentration
MP	Measuring Point
FGD	Flue Gas Desulfurization
OCM	Open Cast Mine
MB	Mining Basin
PSHPP	Pumped Storage Hydro Power Plant
TPP	Thermal Power Plant
TPP-	Thermal Power Plant – Open Cast Mine
OCM	
TPP- HP	Thermal Power Plant – Heating Plant
CHPP	Combined Heat and Power Plant
TS	Substation
TPM	Total Particulate Matters
HPP	Hydro Power Plant