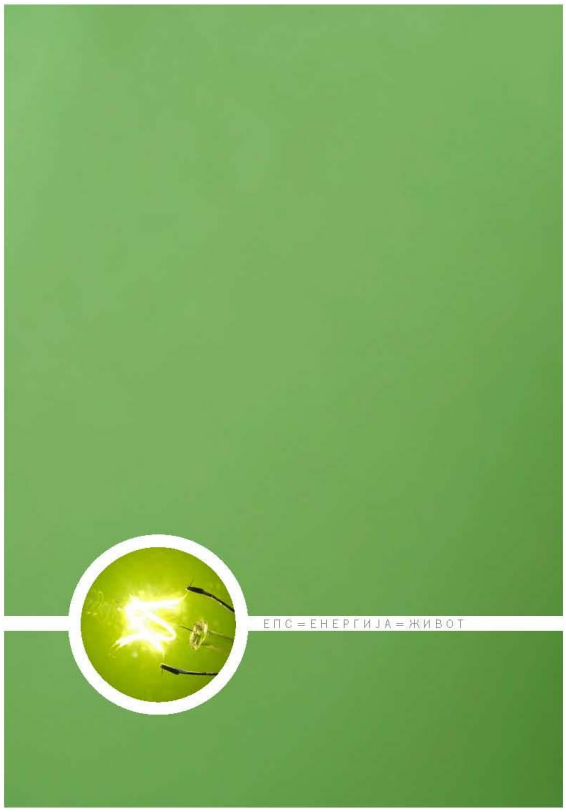
PE ELECTRIC POWER INDUSTRY OF SERBIA

Environmental Protection

Electric Power Industry of Serbia

2017 Environmental Report



Belgrade, May 2018

INTRODUCTION

Public Enterprise Electric Power Industry of Serbia (PE EPS) 2017 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 (APPENDIX 1), 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 2017.

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

Abbreviations used in the Report are provided in APPENDIX 3.

I PUBLIC ENTERPRISE "ELECTRIC POWER INDUSTRY OF SERBIA

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

- Distribution System Operator EPS Distribucija d.o.o. Belgrade, for the performance of activities of electricity distribution and distribution system operation in the Republic of Serbia and
- „EPS Trgovanje" d.o.o. 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, EPS is unable to manage its capacities in Kosovo.

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

Main activity of Public Enterprise "Electric Power Industry of Serbia" is energy activity: supply of electricity, industry code 35.14 - Trade of electricity.

In addition to the primary 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 Kosovo OCMs**) in 2017 are provided in Table 1

Table 1

PUBLIC ENTEPRPRISE ELECTRIC POWER INDUSTRY OF SERBIA							
COAL PRODUCTION IN 2017							
Branch		Coal production (t)			Overburden removal (m^3sm)		
		Planned	Achieved	%	Planned	Achieved	%
BRANCH MB KOLUBARA – OPEN CAST MINES							
Field B		2.677.000	2.940.265	109,80	16.100.000	11.520.375	71,60
Field D		9.137.000	9.456.850	103,50	23.400.000	21.546.146	92,10
Field G		0	149.798	0,00	1.600.000	2.129.339	133,10
Tamnava – West Field		18.186.000	16.842.243	92,60	28.400.000	30.746.732	108,30
TOTAL (RAW COAL*): **BRANCH MB KOLUBARA – OPEN CAST MINES**		**30.000.000**	**29.389.156**	**98,00**	**69.500.000**	**65.942.592**	**94,90**
Kolubara Prerada (dried coal)	With dust	544,000	508,383	93,00	-	-	-
	Without dust	494,000	464,511	94,00	-	-	-
TPPs-OCMs KOSTOLAC – OPEN CAST MINES							
Drmno		9.571.000	9.675.301	101,10	41,500,000	37,487,355	90,30
TOTAL: KOSTOLAC TPPS-OCMS BRANCH – OPEN CAST MINES		**9.571.000**	**9.675.301**	**101,10**	**41.500.000**	**37.487.355**	**90,30**
TOTAL: OPEN CAST MINES PE EPS		**39.571.000**	**39.064.457**	**98,70**	**111.000.000**	**103.429.947**	**93,20**

* 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 (TPPs): Nikola Tesla TPPs, Kostolac TPPs-OCMs, Panonske CHP, PE Kosovo TPPs* and by the following hydropower plants (HPPs): Djerdap HPP and Drinsko – Limske HPPs. Electricity generation data (except for PE Kosovo TPPs*) in 2017 are given in Table 2.

Table 2

PUBLIC ENTEPRPRISE ELECTRIC POWER INDUSTRY OF SERBIA			
ELECTRICITY GENERATION IN 2017			
Branch	Unit	Electricity generation (GWh)	
		at the generator	at the outlet
BRANCH NIKOLA TESLA TPPs			
NIKOLA TESLA A TPP	A1 - A2	2.122,769	1.924,290
	A3 - A5	5.420,968	4.922,318
	A6	1.785,412	1.510,490
NIKOLA TESLA B TPP	Б1 - Б2	8.234,709	7.750,348
KOLUBARA A TPP	A1 - A4	413,975	388,286
	A5	427,861	392,460
MORAVA TPP	A	432,163	390,184
TOTAL: BRANCH NIKOLA TESLA TPPs		**18.837,857**	**17.387,376**

BRANCH KOSTOLAC TPPs-OCMs			
KOSTOLAC A TPP	A1	658,621	579,441
	A2	1.592,838	1.483,590
KOSTOLAC B TPP	Б1	2.600,451	2.350,104
	Б2	2.724,677	2.448,696
TOTAL: BRANCH KOSTOLAC TPPs-OCMs		**7.576,587**	**6.861,831**
BRANCH PANONSKE PPs			
NOVI SAD CHPP	A2	217,779	185,359
ZRENJANIN CHPP		-	-
SREMSKA MITROVICA CHPP		-	-
TOTAL: BRANCH PANONSKE PPS		**217,779**	**185,359**
TOTAL: TPPs and CHPs		**26.632,223**	**24.425,566**
HYDROPOWER PLANTS			
BRANCH DJERDAP HPPs		6.808,683	6.769,550
DRINSKO-LIMSKE HPPs		2.780,893	2.769,220
TOTAL: HPPs		**9.589,576**	**9.538,770**
PE ELEKTROKOSMET*		-	-
TOTAL: PUBLIC ENTERPRISE ELECTRIC POWER INDUSTRY OF SERBIA (exclusive of K&M)		**36.221,799**	**33.964,335**

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

Fuel Consumption and Hazardous and Harmful Substances Air Emission from PE EPS TTPs

Table 3 shows the solid, liquid and gaseous fuel consumption data by PE EPS TPPs and CHPs in 2017.

Table 3

PUBLIC ENTEPRPRISE ELECTRIC POWER INDUSTRY OF SERBIA						
FUEL CONSUMPTION IN 2017						
Organizational unit	**Unit /boiler**	**Fuel**				
		Coal	**Heavy fuel oil**	**Oil**	**Gas**	**Biomass**
		t	t	t	Stm^3	t
BRANCH NIKOLA TESLA TPPs						
NIKOLA TESLA A TPP	A1	1.553.855	1.497	-	-	-
	A2	1.722.526	1.570	-	-	-
	A3	3.058.779	1.178	-	-	-
	A4	2.774.612	1.449	-	-	-
	A5	2.538.541	1.125	-	-	-
	A6	2.739.975	1.843	-	-	-
NIKOLA TESLA B TPP	Б1	5.845.174	9.841	-	-	-
	Б2	6.268.335	11.086	-	-	-
KOLUBARA A TPP	K1	249.587	-	335	-	-
	K2	-	-	-	-	-
	K3	155.196	-	188	-	-
	K4	172.687	-	128	-	-
	K5	189.971	-	139	-	-
	K6	693.356	-	543	-	-
MORAVA TPP	A1	500.080	1.668	304	-	-

TOTAL: BRANCH NIKOLA TESLA TPPs		**28.462.674**	**31.257**	**1.637**	**-**	**-**
BRANCH KOSTOLAC TPPs-OCMs						
KOSTOLAC A TPP	A1	954.991	-	650	-	-
	A2	2.125.395	-	762	-	-
KOSTOLAC B TPP	Б1	3.037.048	2.439	-	-	-
	Б2	3.153.914	1.898	-	-	-
TOTAL: BRANCH KOSTOLAC TPPs-OCMs		**9.271.348**	**4.337**	**1.412**	**-**	**-**
BRANCH MB KOLUBARA – ORGANIZATIONAL UNIT PRERADA						
VREOCI HEATING PLANT	К1 И К2	221.082,00	286,50	-	-	-
TOTAL: BRANCH MB KOLUBARA		**221.082,00**	**286,50**	-	-	-
BRANCH PANONSKE CHPs						
NOVI SAD CHP	A1 (К1 и К2)	-	-	-	1.012,931	-
	A2 (К3)	-	-	-	74.578,935	-
ZRENJANIN CHP	A1	-	-	-	94,407	-
	A2	-	-	-	46,375	-
SREMSKA MITROVICA CHP	A3 (К3 и К4)	-	-	-	-	-
	S2400 1-3	-	-	-	1.359,028	-
	Котао на биомасу	-	-	-	95,545	4,580
TOTAL: BRANCH PANONSKE CHPs		-	-	-	**77.187,221**	**4,580**
TOTAL: PUBLIC ENTERPRISE ELECTRIC POWER INDUSTRY OF SERBIA		**37.955.104,00**	**35.880,50**	**3.049**	**77.187,221**	**4,580**

Air emission of hazardous and harmful substances mainly comes from thermal power plants. Total air emission of hazardous and harmful substances in 2017 for PE EPS organizational units (except for PE Kosovo TPPs*) are given in Table 4.

Table 4

PUBLIC ENTEPRPRISE ELECTRIC POWER INDUSTRY OF SERBIA				
AIR EMISSION OF HAZARDOUS AND HARMFUL SUBSTANCES IN 2017				
Organizational unit	**t / year**			
	Particulate matter	**SO_2**	**NO_x(NO_2)**	**CO_2**
NIKOLA TESLA TPPs BRANCH	7.483,00	183.282,00	28.807,00	20.527.918,00
KOSTOLAC TPPs-OCMs BRANCH	1.970,00	164.413,00	13.032,00	8.032.960,00
PANONSKE CHP BRANCH	0,37	0,00	591,47	143.376,52
KOLUBARA MB BRANCH - ORGANIZATIONAL UNIT PRERADA	387,25	739,07	170,13	192.453,10
TOTAL: PUBLIC ENTEPRPRISE ELECTRIC POWER INDUSTRY OF SERBIA	**9.840,62**	**348.434,07**	**42.600,60**	**28.896.707,62**

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

Work Injuries in PE EPS

Table 5 shows the number of work injuries in 2017 for PE EPS organizational units.

Table 5

PUBLIC ENTEPRPRISE ELECTRIC POWER INDUSTRY OF SERBIA						
WORK INJURIES IN 2017						
Organizational unit	**Number of employees**	**Injuries - number of employees ratio**				
		Easy	**Heavy**	**Fatality**	**Total**	**%**
KOLUBARA MB BRANCH	12.248	167	71	2	240	1,96
KOSTOLAC TPPs-OCMs BRANCH	2241	5	6	2	13	0,58
OPEN CAST MINES:	**14.489**	**172**	**77**	**4**	**253**	1,75
NIKOLA TESLA TPPs BRANCH	2.161	19	7	0	26	1,20
KOSTOLAC TPPs-OCMs BRANCH	770	6	0	0	6	0,78
PANONSKE CHPs BRANCH	422	9	2	0	11	2,61
THERMAL POWER PLANTS:	**3.353**	**34**	**9**	**0**	**43**	**1,28**
DJERDAP HPPs BRANCH	777	8	1	0	9	1,16
DRINSKO-LIMSKE HPPs BRANCH	441	4	1	0	5	1,13
RENEWABLE ENERGY RESOURCES BRANCH	53	0	0	0	0	0,00
HYDROPOWER PLANTS:	**1.271**	**12**	**2**	**0**	**14**	**1,10**
TC BEOGRAD	637	11	3	0	14	2,20
TC NOVI SAD	1.142	39	4	0	43	3,77
TC KRALJEVO	1580	28	4	1	33	2,09
TC KRAGUJEVAC	486	21	1	0	22	4,53
TC NIŠ	883	19	5	2	26	2,94
TECHNICAL CENTERS:	**4.728**	**118**	**17**	**3**	**138**	**2,92**
BRANCH EPS SUPPLY	**1.163**	2	1	0	3	0,26
PE EPS MANAGEMENT	**725**	2	1	0	3	0,41
DA BEOGRAD	894	5	0	0	5	0,56
DA NOVI SAD	724	16	1	0	17	2,35
DA KRALJEVO	934	7	2	0	9	0,96
DA KRAGUJEVAC	302	7	0	0	7	2,32
DA NIŠ	570	8	2	0	10	1,75
DISTRIBUTION SYSTEM OPERATOR	**3.424**	**43**	**5**	**0**	**48**	**1,40**
TOTAL: PUBLIC ENTEPRPRISE ELECTRIC POWER INDUSTRY OF SERBIA	**29.153**	**383**	**112**	**7**	**502**	**1,72**

Note: Relevant fatalities data are provided in sections presenting individual organizational units of PE EPS.

Employees Health in PE EPS

Table 6 shows employee health data including mandatory medical examinations at the start of employment, as well as periodic examinations aimed at assessing the work capability of employees performed in 2017 for the PE EPS organizational units.

Table 6

PUBLIC ENTEPRPRISE ELECTRIC POWER INDUSTRY OF SERBIA											
WORK CAPABILITY IN 2017											
Organizational unit	Number of employees	Periodic examinations				Work capability					
		referred to examination		examined		capable		limited capability		incapable	
		број	%	број	%	број	%	број	%	број	%
KOLUBARA MB BRANCH	12.248	10.249	83,68	9.574	93,41	5.674	59,26	3.777	39,45	123	1,28
KOSTOLAC TPPs-OCMs BRANCH	2.241	1.463	65,28	1.387	94,81	1.240	89,4	119	8,58	21	1,51
OPEN CAST MINES:	**14.489**	**11.712**	**80,83**	**10.961**	**93,59**	**6.914**	**63,08**	**3.896**	**35,54**	**144**	**1,31**
NIKOLA TESLA TPPs BRANCH	2.161	1.668	77,19	1.640	98,32	1.482	90,37	139	8,48	19	1,16
KOSTOLAC TPPs BRANCH	770	611	79,35	605	99,02	539	89,09	65	10,74	0	0,00
PANONSKE CHPs BRANCH	422	204	48,34	200	98,04	115	57,50	84	42,00	1	0,50
THERMAL POWER PLANTS:	**3.353**	**2.483**	**74,05**	**2.445**	**98,47**	**2.136**	**87,36**	**288**	**11,78**	**20**	**0,82**
DJERDAP HPPs BRANCH	777	541	69,63	493	91,13	452	91,68	39	7,91	2	0,41
DRINSKO-LIMSKE HPPs BRANCH	441	157	35,60	151	96,18	142	94,04	6	3,97	3	1,99
RENEWABLE ENERGY RESOURCES BRANCH	53	48	90,57	48	100,00	48	100,00	0	0,00	0	0,00
HYDROPOWER PLANTS:	**1.271**	**746**	**58,69**	**692**	**92,76**	**642**	**92,77**	**45**	**6,50**	**5**	**0,72**
TC BEOGRAD	637	423	66,41	423	100,00	407	96,22	10	2,36	6	1,42
TC NOVI SAD	1.142	725	63,49	724	99,86	602	83,15	113	15,61	9	1,24
TC KRALJEVO	1.580	1.053	66,65	1.052	99,91	971	92,30	77	7,32	4	0,38
TC KRAGUJEVAC	486	312	64,20	297	95,19	208	70,03	57	19,19	32	10,77
TC NIŠ	883	531	60,14	526	99,06	444	84,41	78	14,83	4	0,76
TECHNICAL CENTERS:	**4.728**	**3.044**	**64,38**	**3.022**	**99,28**	**2.632**	**87,09**	**335**	**11,09**	**55**	**1,82**
BRANCH EPS SUPPLY	**1.163**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**
PE EPS MANAGEMENT	**725**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**
DA BEOGRAD	894	328	36,69	328	100,00	328	100,00	0	0,00	0	0,00
DA NOVI SAD	724	274	37,85	267	97,45	259	97,00	7	2,62	0	0,00
DA KRALJEVO	934	589	63,06	585	99,32	498	85,13	85	14,53	1	0,17
DA KRAGUJEVAC	302	158	52,32	158	100,00	124	78,48	34	21,52	0	0,00
DA NIŠ	570	310	54,39	305	98,39	258	84,59	43	14,10	5	1,64
DISTRIBUTION SYSTEM OPERATOR	**3.424**	**1.659**	**48,45**	**1.643**	**99,04**	**1.467**	**89,29**	**169**	**10,29**	**6**	**0,37**
TOTAL: PE EPS	**29.153**	**19.644**	**67,38**	**18.763**	**95,52**	**13.791**	**73,50**	**4.733**	**25,23**	**230**	**1,23**

1. BRANCH MINING BASIN "KOLUBARA"

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

1. Open Cast Mines –Barosevac;
2. Prerada – Vreoci,
3. Projekt and
4. Metal.

Organizational unit "Open Cast Mines –Barosevac" 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. Environmental Division – the organizational unit "Open Cast Mines – Barosevac"; 2. Biological Reclamation Division; 3. Waste and Hazardous Substances Division and 4. Environmental Division - the organizational unit "Prerada"– Vreoci.

A. BRANCH MB KOLUBARA – BRANCH "OPEN CAST MINES-BAROSEVAC"

1.1. Overview and Status of Permits

Overview and status of permits, licences and other necessary approvals in 2017 is provided in Table 7.

Table 7

BRANCH MB KOLUBARA – BRANCH "OPEN CAST MINES-BAROSEVAC"			
Overview and status of permits in 2017			
Open cast mine	**Permits, licences and other necessary approvals obtained in 2017 Project name and status**	**Applications for new or extension of existing permits**	**Note**
Field B/C	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 № 310-02-0397/2010-06 dated 25.08.2010. Valid until 31.12.2014 Decision № 310-02-0397/2010-06 dated 6.06.2014 stipulating the execution of mining works in line with the Detailed Mining Design was obtained. Supplementary Mining Design - Stone excavation at the Krusevica mine, Projekt Branch, Lazarevac, 2011; Technical audit was executed. Mining Design – Field C outside dump and 1st ECS system. Technical audit of the project was performed by the Mining Institute Belgrade № 2392 dated 18.6.2014. Decision approving the Krusevica Open Cast Mine Stone Excavation Environmental Impact Assessment Study was obtained. Decision № 310-03-218/88-02 dated 24.06.2014 approving the Krusevica latite and latite breccia mining field was obtained.	Mining Works approval request submitted under the Supplementary Mining Design 18.08.2015 (collection of documentation necessary for determining public interest on plots in CM Sakulja, which are not owned by PE EPS Belgrade is in progress)	Collection of necessary documentation for the Krusevica mine expansion is in progress

	Balance reserves certificate obtained identifying latite and latite pyroclastics reserves of the Krusevica deposit with the situation 31.12.2011, Decision № 310-02-00494/2012-03 dated 06.03.2014. Preparation of Detailed Mining Design for permanent cancellation of stone excavation at OCM Krusevica 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 № VIII-04-325.2-12/2015 dated 21.07.2015.		
Field D/E	Water approval decision for the Field D Supplementary Mining Design dated 13.12.2013 obtained. Field D Open Cast Mine 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 7.05.2010. Valid until 31.12.2017. Mining Design for the North-western area of OCM "Field D". Technical audit performed by the Mining Institute ltd. Belgrade № 3801 dated 24.10.2014 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.	-	*Preparation of the Detailed Mining Design of the open cast mine Field E is in progress *Preparation of the Environmental impact Assessment Study of the Detailed Mining Design of the open cast mine Field E is in progress
Veliki Crljeni	Veliki Crljeni Detailed Mining Design, Projekt Branch, Lazarevac, 2006 Decision on the execution of mining works under the Veliki Crljeni Open Cast Mine Detailed Mining Design 310-02-0765/2008-06 dated 03.02.2010. Valid until 31.12.2014 Mining works approval decision under the Detailed Mining Design – Veliki Crljeni OCM № 310-02-0765/2008-06 dated 22.04.2015 Decision approving the use of dewatering structures developed under the Detailed Mining Design – Veliki Crljeni OCM № 310-02-0164/2013-03 dated 16 June 2014 Water approval №.325-04-976/2009-07 dated 6.8.2009 Crushing Plant: Supplementary Mining Design of the Tamnava Coal Preparation Plant – Phase I, *Delta inzenjering*, Belgrade, 2011. Supplementary Mining Design – Veliki Crljeni OCM Expansion. Technical audit conducted by the Tera & Gold Beograd, a company for production, engineering, designing and marketing.	-	Request for obtaining approval for the mining works execution under the Supplementary Mining Design for the extension of the open cast mine Veliki Crljeni no.04.02-219377/1-17 dated 4.05.2017 has been submitted

	Environmental Impact Assessment Study for the Supplementary Mining Design – Veliki Crljeni OCM Expansion. Approval of the Environmental Impact Assessment Study for the Supplementary Mining Design – Veliki Crljeni OCM Expansion no. 353-02-345-2016-16 dated 16.09.2016. Decision approving works under the Supplementary Mining Design – Tamnava Coal Preparation Plant Phase II, № 310-02-00900/2014-02 dated 23.07.2015. 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 19.08.2016. 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 14.12.2016.		
Tamnava West Field	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 № 310-02-00187587/2014-03 dated 25.08.2014. Mining Design – Veliki Crljeni ECS System Operation at the Tamnava West Field OCM. Technical audit conducted by the Mining Institute Belgrade № 1723 dated 30.04.2014. Decision № 310-02-01473/2013-03 dated 20.02.2014 approving the use of the mobile shifting station and BW. Water approval decision for the Supplementary Mining Design – Tamnava West Field OCM № 325-04-451/2104-07 dated 14.04.2014 Mining Design – Commissioning of the ECS system taken over from the Veliki Crljeni OCM. Technical audit report by Mining Institute Belgrade 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 Tamnava West Field OCM no. 310-02-01525/2015/2 dated 8.08.2016. 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 17.11.2016.	-	Preparation of the Supplementary Mining Design – Tamnava West Field OCM is in progress
Field G	MME Reserves Certificate, Committee for Establishment and Certification of Reserve Mineral Resources no. 310-02-00410/2010-06 dated 28.09.2010.	-	-

	Approval for coal deposit mining – Field G OCM on the expanded mining field number 321A no.310-02-00311/90 dated 21.01.2015. Detailed Mining Design-Field G OCM, prepared by OC Projekt biro (2012). Technical audit by Mining Institute ltd. Belgrade Approval of Environmental Impact Assessment Study – opening and construction of Field G OCM no. 353-02-1150/2012-02 dated 11.12.2012. Decision on water approval under Detailed Mining Design – Field G (Belgrade City Administration, Secretariat for Water) .d. VIII -04-325.2-32/2014 dated 02.03.2015. MME decision approving mining works under Detailed Mining Design – Field G OCM no. 310-02-00639/2015-02 dated 30.06.2015.		

1.2. Monitoring and Environmental Impacts

1.2.1. Air Quality Measurements

Systematic air quality monitoring in the vicinity of open cast mines of Branch MB "Kolubara" continued in February and March of 2017 at six measuring points – three in the vicinity of east and three in the vicinity of west mines (UTM measured at 4 points). In order to obtain more accurate picture during the year, the measuring was performed at each metering point continuously for ten days every two months (for UTM measurements lasted for 30 days). After the completion of the public procurement procedure, in October 2017, the measurements were continued at twelve measurement points (simultaneous measurement at 6 measuring points for 15 days, followed by simultaneous measurement at the remaining 6 measuring points during 15 days, after a month-long break, the series is repeated; UTM measured at 8 points). Data on obtained results are given in tables 8, 8a, 8b and 8c.

BRANCH MB KOLUBARA – BRANCH "OPEN CAST MINES" BAROŠEVAC Table 8

Air quality in 2017

Air quality indicators	PM 10 (µg/m³)									As (ng/m³)									Cd (ng/m³)								
Measuring period (per months)	February			March			October			February			March			October			February			March			October		
	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of
Radljevo building	50	55,39	6	50	49,73	4	50	57,18	7	6	3,88	2	6	0,9	0	6	5,42	6	5	0,18	0	5	0,13	0	5	0,52	0
Kalenić Waterworks	50	40,28	2	50	38,5	3	50	80,0	9	6	4,65	3	6	2,69	0	6	4,52	4	5	0,46	0	5	0,5	0	5	0,75	0
Field G-Kantina	50	58,54	8	50	54,0	6	-	-	-	6	4,92	3	6	16,94	7	-	-	-	5	0,22	0	5	0,14	0	-	-	-
Volujak	50	40,1	2	50	57,97	5	50	29,1	3	6	5,58	5	6	7,98	/6	6	2,58	/	5	0,23	0	5	< 0,1	0	5	0,34	0
Mali Crljeni	50	97,55	10	50	67,3	6	50	78,3	11	6	6,9	10	6	18,17	/10	6	6,9	8	5	0,46	0	5	< 0,1	0	5	0,45	0

Air quality indicators	Ni (ng/m³)									Pb (µg/m³)									benzo (a) pyrene (ng/m³)								
Measuring period (per months)	February			March			October			February			March			October			February			March			October		
	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of	LV	Av.month.	No of	LV	Ср.месечн	Бр.дана >	ГВ	Ср.месечн	Бр.дана >
Radljevo building	20	2,11	0	20	2,22	0	20	7.3	1	1	0,01	0	1	0,01	0	1	0,01	0	1	0,3	0	1	0,33	0	1	1,9	8
Kalenić Waterworks	20	< 2	0	20	2,29	0	20	12,68	1	1	0,01	0	1	0,01	0	1	0,03	0	1	< 0,3	0	1	0,74	2	1	1,3	10
Field G-Kantina	20	2,1	0	20	2,98	-	-	-	-	1	0,01	0	1	0,01	0	-	-	-	1	1,7	5	1	0,26	0	-	-	-
Volujak	20	2,27	0	20	2,15	0	20	5,96	0	1	<0,02	0	1	<0,01	0	1	0,01	0	1	2,54	0	1	1,13	2	1	0,83	5
Mali Crljeni	20	2,1	0	20	2,33	0	20	5,85	1	1	0,01	0	1	0,01	0	1	0,01	0	1	< 0,3	0	1	2,68	4	1	3,14	15

Pumping station	50	-	-	50	-	-	50	3,7	5	6	-	-	6	-	-	6	4,1	2	5	-	-	5	-	-	5	,33	0	20	-	-	20	-	-	20	6,06	0	1	-	-	1	-	-	1	,02	0	1	-	-	1	-	-	1	1,26	11
Kolubara Erection yard Field E	5	-	-	5	-	-	5	5	9	6	-	-	6	-	-	6	1	1	5	-	-	5	-	-	5	0	0	2	-	-	2	-	-	2	8	1	1	-	-	1	-	-	1	0	0	1	-	-	1	-	-	1	4	1
Водовод Медоше-вац Old erection	50	-	-	50	-	-	50	47,28	8	6 6	-	-	6	-	-	6 6	5,06	5	5	-	-	5	-	-	5	0,42	0	20	-	-	20	-	-	20	7,2395	1 0	1	-	-	1	-	-	1	0,02	0	1	-	-	1	-	-	1	1,3934	1111
TS Jabučje	50	-	-	50	-	-	50	17,2	0	6	-	-	6	-	-	6	1,66	0	5	-	-	5	-	-	5	0,21	0	20	-	-	20	-	-	20	4,36	0	1	-	-	1	-	-	1	0,01	0	1	-	-	1	-	-	1	0,70	4
TWF central control room	50	-	-	50	-	-	50	47,6	7	6	-	-	6	-	-	6	5,1	9	5	-	-	5	-	-	5	0,49	0	20	-	-	20	-	-	20	5,92	0	1	-	-	1	-	-	1	0,01	0	1	-	-	1	-	-	1	1,35	7
Prerada waterworks	50	-	-	50	-	-	50	71,84	9	6	-	-	6	-	-	6	12,99	10	5	-	-	5	-	-	5	0,56	0	20	-	-	20	-	-	20	6,15	0	1	-	-	1	-	-	1	0,02	0	1	-	-	1	-	-	1	4,2	9
Pumping station Prerada	50	-	-	50	-	-	50	43,96	8	6	-	-	6	-	-	6	5,11	7	5	-	-	5	-	-	5	0,36	0	20	-	-	20	-	-	20	5,88	0	1	-	-	1	-	-	1	0,02	0	1	-	-	1	-	-	1	2,28	14

Table 8 a

BRANCH MB KOLUBARA – BRANCH "OPEN CAST MINES" BAROŠEVAC						
Air quality in 2017						
Metering points	**Medoševac Waterworks**		**Kalenić Waterworks**		**Mali Crljeni**	
Investigated parameters/ Unit of measurement	**February/March**		**February/March**		**February/March**	
	Measured value	**LV**	**Measured value**	**LV**	**Measured value**	**LV**
Precipitation l/m^2/day	1.434	-	1.097	-	1.027	-
Total particulate matter mg/m^2/day	130,4	450	106	450	236,2	450
Soluble particulate matter mg/m^2/day	93,4	-	74,8	-	126,3	-
Insoluble particulate matter mg/m^2/day	37	-	31,2	-	109,9	-
Ash mg/m^2/day	22,2	-	21,5	-	10,1	-
Fluoride mg/m^2/day	0,28	-	0,27	-	0,35	-
Chlorides mg/m^2/day	2,45	-	0,58	-	1,48	-
Sulfates mg/m^2/day	10,31	-	9,07	-	18,25	-
Nitrates mg/m^2/day	1,46	-	0,96	-	5,6	-
Bromides mg/m^2/day	< 0,008	-	< 0,008	-	< 0,008	-
Orthophosphate mg/m^2/day	< 0,017	-	< 0,017	-	< 0,017	-
Nitrites mg/m^2/day	< 0,008	-	< 0,008	-	< 0,008	-
Calcium mg/m^2/day	< 15	-	< 15	-	< 15	-
Magnesium mg/m^2/day	< 7	-	< 7	-	< 7	-
Lead µg/m^2/day	< 150	-	< 150	-	< 150	-
Cadmium µg/m^2/day	< 30	-	< 30	-	< 30	-
Zinc µg/m^2/day	< 70	-	< 70	-	< 70	-
Manganese µg/m^2/day	< 15	-	< 15	-	< 15	-

Table 8 b

BRANCH MB KOLUBARA – BRANCH "OPEN CAST MINES" BAROŠEVAC																		
Air quality in 2017																		
Measuring period per months	**February**									**March**								
Air quality indicators	**SO_2 ($\mu g/m^3$)**			**NO_x ($\mu g/m^3$)**			**Soot ($\mu g/m^3$)**			**SO_2 ($\mu g/m^3$)**			**NO_x ($\mu g/m^3$)**			**Soot ($\mu g/m^3$)**		
Averaging period	**LV**	**Av.month. oncent.**	**No of days > LV**	**LV**	**Av.month. oncent.**	**No of days > LV**	**LV**	**Av.month. oncent.**	**No of days > LV**	**LV**	**Av.month. oncent.**	**No of days > LV**	**LV**	**Av.month. oncent.**	**No of days > LV**	**LV**	**Av.month. oncent.**	**No of days > LV**
Measuring point																		
MM1-Radljevo building	125	19,3	0	85	4,9	0	50	8,8	0	125	22,3	0	85	4,9	0	50	7,4	0
MM2- Kalenić Waterworks	125	21,6	0	85	6,2	0	50	11,28	10	125	22,0	0	85	5,4	0	50	7,6	0
MM3- Field G-Kantina	125	21,6	0	85	7,3	0	50	12,26	0	125	22,7	0	85	7,1	0	50	26,7	0
MM4- Volujak	125	< 0,20	0	85	10,4	0	50	10,02	0	125	< 0,20	0	85	6,9	0	50	9	0
MM5- Mali Crljani	125	< 0,20	0	85	3,9	0	50	13,24	0	125	22,6	0	85	8,2	0	50	16,6	0
MM6- Medoševac Waterworks	125	20,1	0	85	5,0	0	50	9,49	0	125	20,1	0	85	6,1	0	50	10,8	0

Table 8 c

BRANCH MB KOLUBARA – BRANCH "OPEN CAST MINES" BAROŠEVAC									
Air quality in 2017									
Measuring period per months	**October**								
Air quality indicators	**SO2 (µg/m³)**			**NO_2 (µg/m³)**			**Soot (µg/m³)**		
Averaging period	**LV**	**Av.monthly concent.**	**No. of days > LV**	**LV**	**Av.monthly concent.**	**No. of days > LV**	**LV**	**Av.monthly concent.**	**No. of days > LV**
Measuring point									
Radljevo building	125	22,4	0	85	20,2	0	50	14,8	0
Pumping station Kolubara	125	< 20,0	0	85	13,5	0	50	14,7	0
Erection yard Field E	125	20,4	0	85	7,5	0	50	10,3	0
Old erection	125	< 20,0	0	85	13,5	0	50	14,7	0
Mali Crljeni	125	28,3	0	85	26,3	0	50	26,1	3
TS Jabučje	125	< 20,0	0	85	15,4	0	50	9,5	0

Table 8 d

BRANCH MB KOLUBARA – BRANCH "OPEN CAST MINES" BAROŠEVAC															
Air quality in 2017															
Measuring points		Prerada Waterworks		Kalenić Waterworks		Mali Crljeni		Volujak		Erection yard Field E		Pumping station Kolubara		TS Jabučje	
Investigated parameters/ Unit of measurement	Month October	Measured value	LV	Measured value	LV	Measured value	LV	Measured value	LV	Measured value	LV	Measured value	LV	Measured value	LV
Precipitation l/m²/day		0,90	-	0,41	-	0,47	-	0,50	-	1,32	-	0,82	-	0,97	-
Total particulate matter mg/m²/day		219,2	450	133,0	450	132,9	450	189,3	450	326,1	450	119,6	450	131,1	450
Soluble particulate matter mg/m²/day		63,7	-	69,3	-	78,7	-	57,5	-	63,7	-	42,7	-	38,3	-
Insoluble particulate matter mg/m²/day		155,4	-	63,7	-	54,2	-	131,8	-	262,4	-	76,9	-	92,7	-
Ash mg/m²/day		54,1	-	11,2	-	15,8	-	48,3	-	115,9	-	17,1	-	10,8	-
Fluoride mg/m²/day		0,08	-	0,09	-	0,10	-	0,15	-	0,14	-	0,09	-	0,10	-
Chlorides mg/m²/day		0,95	-	0,32	-	2,88	-	0,40	-	0,59	-	0,44	-	0,59	-
Sulfates mg/m²/day		5,08	-	3,97	-	11,73	-	7,08	-	12,88	-	7,86	-	3,77	-
Nitrates mg/m²/day		3,03	-	4,01	-	1,39	-	5,29	-	2,38	-	3,37	-	2,52	-

Bromides mg/m²/day	< 0,008	-	< 0,008	-	< 0,008	-	< 0,008	-	< 0,008	-	< 0,008	-	< 0,008	-
Orthophosphate mg/m²/day	< 0,017	-	< 0,017	-	1,13	-	< 0,017	-	< 0,017	-	< 0,017	-	< 0,017	-
Nitrites mg/m²/day	< 0,008	-	< 0,008	-	< 0,008	-	< 0,008	-	< 0,008	-	< 0,008	-	< 0,008	-
Calcium mg/m²/day	< 15	-	< 15	-	< 15	-	< 15	-	< 15	-	< 15	-	< 15	-
Magnesium mg/m²/day	< 7	-	< 7	-	< 7	-	< 7	-	< 7	-	< 7	-	< 7	-
Lead µg/m²/day	< 20	-	< 150	-	< 20	-	< 20	-	< 20	-	< 20	-	< 20	-
Cadmium µg/m²/day	< 5,4	-	< 30	-	< 5,2	-	< 5,2	-	< 5,4	-	< 5,4	-	< 5,4	-
Zinc µg/m²/day	192,1	-	< 70	-	140,1	-	< 34	-	< 34	-	< 34	-	< 34	-
Manganese µg/m²/day	< 15	-	< 15	-	< 15	-	< 15	-	< 15	-	< 15	-	< 15	-

1.2.2. Water Emission Measurements

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

- **Dewatering system water**

B 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, without treatment (since analyses show that there is no need for treatment), 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 (wastewater) from open cast mines (from the sedimentation tank into the recipient) in 2017.

Table 9

BRANCH MB KOLUBARA– BRANCH "OPEN CAST MINES" BAROŠEVAC				
Water quality in 2017				
Parameters	**OCM "Veliki Crljeni"**	**OCM " Field B", Baroševac**	**OCM " Field D" Medoševac**	**OCM "Tamnava West Field "**
Electrical conductivity (µs/cm)	490-536	473-606	761-850	455-597
pH	7,9-8,2	7,2-7,8	7,8 – 7,8	7,8-7,9

- **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 performed 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 spent drinking water in 2017. The amount of generated sanitary wastewater can be estimated on the basis of the quantity of the supplied drinking water.

Table 10

BRANCH MB KOLUBARA– BRANCH "OPEN CAST MINES" BAROŠEVAC		
Water quantity in 2017 (m^3/god.)		
Open cast mine	**Total amounts of pumped water (m^3)**	**Supplied drinking water (m^3)**
Field B/C	210.070	-
Field D	2.169.788	Water supply system Junkovac 147 567, Medoševac 1 065 782 and Nova Montaža 243.321; Σ 1.456.670
Tamnava - East Field and Veliki Crljeni	2.531.780	Water supply system Tamnava - East Field 208.508
Tamnava - West Field	8. 234.146	Water supply system Kalenić 1.054.361

1.2.3. Soil Emission Measurements

- **Overview 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.

Biological Reclamation Division, Forestry Office manages 720.31 ha of areas reclaimed by afforestation (Field D- 548,83h, Tamnava East Field – 63, 57 and Field B- 15,50 ha). During the period 01.01.2017-31.12.2017, 5.65 ha of expropriated forests was handed over to the Forestry Office, where preservation measures are performed.

Pursuant to Article 22. of the Forest Law (OG RS № 30/2010,93/2012 and 89/2015) forest user shall be obliged to make Forest Management Basis for the management unit which he manages. Pursuant to the Law for the needs of the Branch MB "Kolubara", "Šuma-Plan" from Banja Luka made the Forest Management Basis for the MU MB "Kolubara" with the validity deadline of 10 years (2018.-2027.). The approval of the Forest Administration has been obtained for this planning document (Decision No.322-02-00220/2017-10 as of 27.12.2017).

Biological Reclamation Division, Agriculture Office conducts the biological reclamation measures and organises regular agricultural production in 2017, on a total area of 118.40 ha (reclaimed areas 103.90 ha and expropriated areas 14.50 ha)

MB Kolubara registered the expropriated land conclusively with 31 December 2017 for: Field D, Field B, Field E, Field G, South Field, Auxiliary Machinery and (Headquarters) OCM Expert Divisions.

The last year register was prepared by aligning the register with the real estate folio in the land register.This was followed by a breakdown of all cadastral lots according to Fields, while subsequently the expropriated land for the current year was added. Since there are new expropriated fields, by examining the expropriation decisions and based on the polygons of these Fields, considerable number of lots already in the land register within Field D and Field B were transferred to these Fields. The land register for previous years contained cadastral lots registered as "expropriated outside open cast mines", while in the 2013 land register such cadastral lots were allocated according to Fields.

All cadastral lots of the Medosevac Cadastral Municipality which are no longer in use of the MB Kolubara under the Decision № 952-02-1815/2011 dated 23 March 2012 were transferred to the ownership of the Republic of Serbia, Belgrade, so it was decided to stop entering such cadastral lots into the land register, which was done in the land register of 2013.

By comparing the real estate folio in the land register and situation in MB "Kolubara" it was concluded that:

- There is a correction of areas on many cadastral lots;
- All roads registered under the MB Kolubara, for which land use has not been altered, were transferred to the Republic of Serbia or Lazarevac Municipality.
- There are cadastral lots registered in our records as expropriated during the 50s and the 70s still registered to private persons, but without a valid document verifying this. Subsequently, such cadastral lots were taken out of the register.
- There are a few cadastral lots that were expropriated long time ago, but have never been entered into the register. Therefore, two cadastral municipalities were added: Sokolovo (2 lots) and Tulez (1 lot).

It was established that there are quite a few cadastral lots simultaneously recorded in the MB Kolubara register and in registers maintained by other committees. For this reason, it was agreed for the MB Kolubara to stop registering some cadastral lots as its ownership.

LAND REGISTER ISSUES:

- In late 2011, within the Medosevac Cadastral Municipality a total of 591.06 ha was expropriated. A small number of cadastral lots was not registered to MB Kolubara, while all other registered lots were transferred to the Republic of Serbia. A total of 25.55 ha is in MB Kolubara ownership, while all other lots registered to the MB Kolubara were registered after the decision to transfer the property of MB Kolubara to the Republic of Serbia ownership. Therefore, in the case of Field D less dump sites were indicated (reduced for 352.54 ha), together with coal areas (reduced by 78.02ha), overburden areas (reduced by 142.33 ha), etc., given that the remaining lots are located on the territory not owned by the MB Kolubara and thus not entered into the land register.

- Previous issue results in overlapping of territory expropriated for the needs of Field D (and registered in land registry of Field D) with overburden, coal and dump site of Field B, causing a problem during the search of each cadastre lot to present it within the following items: coal, overburden, etc.

Total expropriated areas, total land areas whose use has been changed, land containing buildings, land containing dump sites and reclaimed areas in 2016 and 2017 are shown in Table 11a and Table 11b.

BRANCH MB KOLUBARA– BRANCH „ OPEN CAST MINES BAROSEVAC “																			Table 11a
Open cast mine /Facilities	Total expropriated areas (ha)*	Total land area registered in the land register (ha)		Total land area whose use has been changed (ha)		Land containing buildings (ha)		Dump site areas (ha)				Reclaimed areas (ha)							
								Inside		Outside		Forests		Arable land		Orchards		Nurseries	
		State in 2016	State in 2017	State in 2016	State in 2017	State in 2016	State in 2017	state		state		state		state		state		state	
								2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
Field D*	2.470,36	2.385,22	64.80	1.064,98	0,36	32,24	1,53	1.327,83	1.409,30	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Field B	1.065,35	1.054,41	5,46	402,34	0,00	20,01	0,15	469,11	429,90	0,00	0,00	0,70	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Auxiliary machinery	10,46	10,46	0,00	0,00	0,00	9,69	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	0,00	0,00	0,00	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	424,38	388,12	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	0,00
Field G	208,19	199,59	0,26	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 E	347,17	299,22	20,15	0,00	0,32	0,00	0,06	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	2.145,21	1.947,58	0,00	82,67	0,00	104,23	0,00	749,36	100,90	0,00	0,00	0,00	0,00	0,00	1,6	0,00	0,00	0,00	0,00
Veliki Crljeni	189,35	177,88	0,00	0,00	0,00	1,66	0,00	5,64	210,10	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Tamnava West Field	1.750,03	1.743,70	0,00	70,13	0,00	48,37	0,00	693,40	836,20	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Radljevo	265,79	174,54	86,33	0,00	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
Kladnica:**	45,58	40,95	4,63	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
TOTAL:	**8.986,52**	**8.440,32**	**181,63**	**1.620,12**	**0,68**	**234,23**	**1,92**	**3.245,34**	**2.986,40**	**0,00**	**0,00**	**0,70**	**0,00**	**0,00**	**1,6**	**0,00**	**0,00**	**0,00**	**0,00**

***** In the lot of Field D expropriated areas for the needs of OCM Field D are included, as well as the needs for the relocation project of the settlment Vreoci

** in the mentioned lot expropriated areas for the needs of rerecovery of watercourses and embankments of the rivers Kolubara, Vraničina, Skobaljski potok and dam "Kladnica", and based on the Law on the Eliminating the consequences of floods in the Republic of Serbia.

BRANCH MB KOLUBARA– BRANCH „ OPEN CAST MINES BAROSEVAC “								Table 11 b
Expropriated areas on active open cast mines of MB Kolubara in 2017 (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**
2015.	2.04	5.00	8,96	1,30	45,44	32,11	1,34	37,20
2016.	-	-	0,18	1,20	87,80	28,83	42,40	3,75
2017.	5,46	-	-	-	64,80	20,15	86,33	4,63
Total expropriated areas 2015/2016/2017	**7,5**	**5,00**	**9,14**	**2,50**	**198,04**	**81,09**	**130,07**	**45,58**

1.2.4. Environment noise measurement

Measuring point for environment noise measurement in 2017:

- Measuring point house of Radojica Jovičić – 27.04.2017 – Baroševac,
- Measuring point „Strana“ – 30.05.2017– Baroševac,
- Measuring point „Rezervoar“ – 22.06.2017 – Burovo,
- Measuring point Mini market „A“ – 03.08.2017 – Arapovac.

Noise measurement results are shown in the Table 12.

Table 12

BRANCH MB KOLUBARA– BRANCH „ OPEN CAST MINES BAROŠEVAC “			
Noise level in 2017 (dB)(A)			
Measuring date	**27.04.2017**		
Measuring point	**House of Radojica Jovičić / Baroševac - Across loading area**		
	Equivalent level (dB)	Equivalent level (dB)	Equivalent level (dB)
Day level	62,2 / 63,5	67,5 / 68.5	65
Evening level	62,1 / 61	67,1 / 66	65
Night level	53,5 / 50	63,5 / 60	55
Measuring date	**30.05.2017**		
Measuring points	**„Strana“ Baroševac**		
	Equivalent level (dB)	Applicable level (dB)	Permitted level (dB)
Day level	43,6	48,6	65
Evening level	53,6	58,6	65
Night level	54.6 (drive station in operation, barking of dogs)	64,6	55
Measuring date	**22.06.2017.**		
Measuring points	**“Rezervoar“ Burovo**		
	Equivalent level (dB)	Applicable level (dB)	Permitted level (dB)
Day level	4,.6	46,6	60
Evening level	41,2	46,2	60
Night level	33,5	43,5	50
Measuring date	**03.08.2017.**		
Measuring points	**Mini market „A“ Arapovac**		
	Equivalent level (dB)	Applicable level (dB)	Permitted level (dB)
Day level	60,5	65,5	60
Evening level	61,5	66,5	60
Night level	51,5	61,5	50

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 2017 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 2017 is shown in the Table 13 in line with the Serbian waste management regulations.

Table 13

BRANCH MB KOLUBARA– BRANCH „ OPEN CAST MINES BAROŠEVAC “										
Waste in 2017										
	Official nomenclature of the Rules defining waste categories, its testing and classification OG RS № 56/10		**Measuring Unit**	**Open cast mine/Facility**						
				"Field D”	**" Field B”**	**„Tamnava West Field“**	**„Tamnava East Field“**	**Auxiliary Machi.**	**Total**	**Note**
	Name	Index number		Generated waste amounts						
1.	Used printer cartridge other than the one indicated under 08 03 17	08 03 18	t	0,037	0,015	0,074	0,050	0,050	**0,226**	Cartridges
2.	Scraping and processing of ferrous metals	12 01 01	t	25,000	0,000	3,580	0,000	0,000	**28,580**	Metal processing scrapings
3.	Scraping and processing of non-ferrous metals	12 01 03	t	0,542	0,000	0,000	0,000	0,000	**0,542**	Non-ferrous metals processing scrapings
4.	Mineral non-chlorinated motor oils, gearbox and lubricating oils	13 02 05*	t	1,380	0,000	5,879	2,480	70,000	**79,739**	Motor oil
5.	Mineral non-chlorinated hydraulic oils	13 01 10*	t	0,000	0,000	1.025	0,000	0,000	**1,025**	Hydraulic oil
6.	Other motor oils, gearbox and lubrication oils	13 02 08*	t	0,000	0,000	0,000	0,000	0,000	**0,000**	Gearbox oil 13 02 08 * other motor oils, gearbox and lubricating oils
7.	Sludge from oil/water separator	13 05 02*	t	0,000	0,000	0,000	0,000	0,000	**0,000**	Oily water after floods
8.	Oily water from oil/water separators	13 05 07*	t	0,000	0,000	0,000	0,000	0,000	**0,000**	Oily water separator from oil/water
9.	Waste not otherwise specified	13 08 99*	t	0,000	0,000	0,200	0,000	0,000	**0,200**	Grease and oils containing impurities, filtration oil residue
10.	Packaging containing residues of substances or contaminated by hazardous substances	15 01 10*	t	0,000	0,260	0,000	0,000	15,000	**15,260**	Waste metal packaging used for oil and lubricants
11.	Absorbent and filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	0,400	2,430	0,550	0,748	7,000	**11,128**	Oil and air filters. Oily wiping cloth
12.	Used tires	16 01 03	t	5,000	0,000	7,800	10,000	30,000	**52,800**	Tires, waste conveyor belting with steel cord, wipers, idler rubber rings
13.	Brake pads containing asbestos	16 01 11*	t	0,000	0,000	0,000	0,000	0,000	**0,000**	Waste from asbestos packing and brake pads
14.	Lead batteries	16 06 01*	t	0,470	0,112	0,109	0,000	0,000	**0,691**	Accumulators
15.	Ni-Cd batteries	16 06 02*	t	0,000	0,000	0,000	0,000	0,000	**0,000**	Ni-Cd batteries
16.	Copper, bronze, brass	17 04 01	t	0,233	0,000	0,000	1,060	0,000	**1,293**	Copper
17.	Aluminium	17 04 02	t	0,000	0,500	0,000	0,000	0,000	**0,500**	Aluminium from hydrodynamic couplings

18.	Iron and steel	17 04 05	t	78,000	16,400	11,060	25,700	0,000	**131,160**	Alloy steel (crawler platforms, crusher hammers, excavator teeth)
				7,000	0,200	0,000	0,000	0,000	**7,200**	Iron and steel with rubber coating
				15,600	0,000	0,000	42,135	0,000	**57,735**	Iron over 6 mm
				12,000	2,751	0,000	17,500	0,000	**32,251**	Iron and steel sheets up to 3 mm (switching cabinets, vulcanization containers)
				33,000	72,420	35,120	0,000	0,000	**140,54**	Iron and steel over 3 mm
19.	Cables other than those specified under 17 04 10	17 04 11	t	60,000	80,260	50,000	15,000	0,000	**205,260**	High voltage copper cables with insulation
				30,000	0,000	0,000	0,000	0,000	**30,000**	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**	Waste asbestos
21.	Plastics and rubber	19 12 04	t	0,000	30,120	0,000	0,000	0,000	**30,120**	Plastics and rubber. Conveyer belting, waste conveyer belting with steel cord, rubber idler rings
22.	Other wate from waste mechanical treatment containing hazardous substances	19 12 11*	t	0,000	5,760	0,000	0,000	0,000	**5,760**	Oily ribber-plastic gaskets and hydraulic tubes
23.	Fluorescent tubes and other waste containing mercury	20 01 21*	t	0,040	0,245	0,000	0,000	0,010	**0,295**	Fluorescent tubes, mercury lamps and other mercury-containing waste
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	0,000	6,580	0,380	0,480	0,000	**7,440**	Electrical and electronic equipment
26.	Discarded electrical and electronic equipment other than those indicated under y 20 01 21, 20 01 23 and 20 01 35	20 01 36	t	24,050	20,000	0,000	0,000	0,000	**44,050**	Waste electric motors
				0,000	0,000	0,000	0,000	0,000	**0,000**	El. tools and equipment
			t	0,000	0,000	0,000	0,000	0,000	**0,000**	Electronic waste-computer equipment
27.	Scrap metal contaminated with hazardous substances	17 04 09*	t	17,000	0,000	0,000	0,000	0,000	**17,000**	Oiled idler bearings
28.	Plastics	20 01 39	t	0,000	0,000	0,000	0,000	0,000	**0,000**	Plastics

B. BRANCH MB KOLUBARA - BRANCH "PRERADA" AND BRANCH „KOLUBARA METAL“

B.1. BRANCH „PRERADA“

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

Branch *Prerada* is within the Branch MB Kolubara and it comprises the following 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 2017 Branch “Prerada” didn't obtain any new permits. Overview and status of permits is given in Table 14.

Table 14

BRANCH MB KOLUBARA – “BRANCH” PRERADA			
Overview and Status of Permits in 2017			
Unit	**Permits, licenses and other necessary approvals, obtained in 2017 (number and date) Project name and status**	**New requests for obtaining or extension of valid permits**	**Note**
Enrichment Unit	Ministry of agriculture and environmental protection, Republic Directorate for Water issue: Water conditions for the construction of a wastewater treatment plant and a facility for draining and discharging wastewater into the canal, OU "Prerada", Vreoci CM Lazarevac No.325-05-00046/2017-07 as of 07.02.2017.	-	The importance of these water conditions shall cease after the expiration of one year from the date of issuing, if within that period the request for issuing a water consent has not been submitted.
Enrichment Unit	Ministry of agriculture and environmental protection, State Secretary in accordance with the Decision on authorisation No.119-01-51/26/2016-09 as of 25.10.2016 issue: Decision for the Project of the construction of WWTP within OU „Prerada“ ,on CP No.1820 CM Vreoci, Lazarevac Municipality, assessment on enviromental impact No.353-02-765/2017-16 as of 17.05.2017, is necessary.	-	-

Enrichment Unit OU 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.
Enrichment Unit OU Heating Plant	Extension of deadline for submission of amendment of the Request for issuing an integrated permit - Letter to MEP No. 353-01-02681/2013-05 as of 07.07.2017.	-	Deadline 120 days. Request for extension filed within the deadline.

1.2. Monitoring and Environmental Impact

1.2.1. Air Quality Measurements

No air quality measurements and monitoring were performed inside the Branch *Prerada* impact zone in 2017. Air quality in the area covered by the MB Kolubara organisational units is monitored by a system financed and operated by the corresponding organisational units, as well as 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. Air Emission Measurements

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.

In the course of 2017, 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 (SO_2), nitrogen oxides (NO_x–NO_2), 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 № 71/2010 and 6/11) and the Large Combustion Plants Directive 2001/80/EC.

Table 15 provides an overview of the results of individual air pollutants measurements for the Vreoci Heating Plant conducted in 2017.

Table 15

BRANCH MB KOLUBARA– BRANCH "PRERADA"					
Individual measurements of air pollutants emission for 2017					
Mass concentrations of pollutants (mg/Nm³)					
Heat output MWth120 (2 x 60MW)					
Organisational unit	**Heating Plant Vreoci**			**ELV**	
Boiler	**2**	**1**		**ELV[1]**	**ELV[2]**
Date	10.04.2017.	22.05.2017.	21.12.2017.		
SO_2	1.004,50	986,88	1.165,22	1.920	1.920
NO_x (NO_2)	274,69	174,83	190,22	600	600
CO	869,85	240,30	22,85	250	-
Powdery substances	792,27	318,60	78,30	100	100

[2] Large Combustion Plants Directive 2001/80/EC

Compliance with legal regulations given in Table 16.

Table 16

BRANCH MB KOLUBARA– BRANCH "PRERADA"				
Compliance with legal requests in 2017				
Harmful substances		**Powdery substances**	**SO_2**	**NO_x (NO_2)**
		mg/Nm³		
ELV	**Republic of Serbia**	**100**	**1.920**	**600**
	European Union	**100**	**1.920**	**600**
Vreoci Heating Plant	**Boiler 1**	Measured values from the first measurement are not complied with ELV and in the second measurement the measured values are complied with ELV	All measured values are complied (below ELV)	All measured values are complied (below ELV)
	Boiler 2	Measured values are not complied	All measured values are complied (below ELV)	All measured values are complied (below ELV)

Legal compliance was evaluated by comparing the measured air pollutants emission values and emissions limit values, ELV, defined by the Regulation stipulating the air pollutants emission limit values (OG RS № 6/16) and the Large Combustion Plants Directive 2001/80/EC.

Table 17 provides an overview of air pollutants emissions: powdery substances,SO_2, NO_2 and CO_2 for the Branch *Prerada* in 2017. Annual SO_2 and NO_2 emissions were calculated using the measured mass concentrations, flue gas flow rate and unit operating hours, while CO_2 emissions were determined based on fuel consumption data (given in table 18) and ECF - emission correction factor.

Table 17

BRANCH MB KOLUBARA– BRANCH *PRERADA*				
Air pollutants emissions in 2017 - Individual emission measurements				
Објекат	**Heating Plant**			
	t/year			
	Powdery substances	**SO_2**	**NO_x (NO_2)**	**CO_2**
BOILER 1	41,98	303,92	51,87	0,00
BOILER 2	340,27	435,15	118,26	0,00
TOTAL: BRANCH MB KOLUBARA – BRANCH „PRERADA"	**387,25**	**739,07**	**170,13**	**192.453,10**

Table 18

BRANCH MB KOLUBARA– BRANCH *PRERADA*		
Fuel consumption in 2017		
Facility	**Vreoci Heating Plant**	
	t/year	
	coal	**Heavy fuel oil**
BOILER 1	221.082,00	286,50
BOILER 2		
TOTAL: BRANCH MB KOLUBARA – BRANCH „PRERADA“	**221.082,00**	**286,50**

1.2.3. Water Emission Measurements

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 Branch *Prerada* to generate superheated steam, ash and slag transport and wet coal separation. Branch *Prerada* 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, phosphates, phenol, arsenic, mineral oil, and microbiological analysis of water.

Quality control of groundwater was performed in 7 piezometers (6 in the area of plants and 1 in the vicinity of the Kolubara River).

During 2017 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 Branch *Prerada* impact zone are submitted to: the Ministry of Agriculture and Environmental Protection, Public Water Management Company Beogradvode, City Administration-Department for Utilities and Housing Services- Water Division and PE Electric Power Industry of Serbia, Secretariat (City of Belgrade Environmental Division for environmental protection).

Quality control of groundwater was performed in 7 piezometers (6 around in the area of plants and 1 in the vicinity of the Kolubara River).

Table 17 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.

Groundwater quality of the Branch "Prerada" is shown in the Table 19.

Table 19

BRANCH MB KOLUBARA– BRANCH *PRERADA*		
Groundwater quality in 2017		
Concentration	**RV[1]**	**Organizational Unit Prerada**
Arsenic (mg/l)	0,06	All measured values were below remediation value (<0,003-0,0099)
Phenols (mg/l)	2	All measured values were below remediation value (<0,001)
Mineral oils (mg/l)	0,6	All measured values were below remediation value (<0,01)

RV[1] - 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 № 88/2010).

Table 20 provides wastewater quality data analysis at the treatment plant inlet and outlet in 2017.

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.

Table 20

BRANCH MB KOLUBARA– BRANCH *PRERADA*		
Wastewater treatment plant operating results in 2017		
Parameter	**Concentration (mg/l)**	
Pollutant	**Plant inlet**	**Plant outlet**
Suspended solids	2.233,00 – 10.500,00	255,00-490,00
Organic substances COD	2.232,77 – 5.168,51	322,29-629,38
Phenols	1,960 – 5,602	<0,001-0,197
Arsenic	0,098 – 0,270	0,004-0,432

1.2.4. Soil Emission Measurements

During 2017 no physical-chemical soil testing in the Branch *Prerada* 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 № 88/10).

1.2.5. Environmental Noise Measurements

Noise level measurements and the *Prerada* Branch living environment noise impact assessment in 2017 were not carried out.

1.2.6. Waste

Waste amounts generated in 2017 in *Prerada* Branch are provided in Table 21 according to Serbian waste management legislation.

Table 21

BRANCH MB KOLUBARA– *PRERADA* BRANCH					
Generated types of waste in 2017					
Official nomenclature of the Rules defining waste categories, its testing and classification OG RS № 56/10 dated 10.08.2010					
№	**Name**	**Index number**	**Unit**	**Waste amount**	**Note**
1.	Waste paint and varnish containing organic solvents or other dangerous substances- Paints and solvents	08 01 11 *	t	0,000	Paints, solvents and varnishes
2.	Used printer cartridges other than the one indicated under 08 03 17	08 03 18	t	0,145	Cartridges
3.	Boiler ash, slug and dust (except boiler dust indicated under 10 01 04)	10 01 01	t	0,000	Ash and slag
4.	Chips from ferrous metals processing	12 01 01	t	0,200	Chips from metals processing
5.	Wastes not otherwise specified	12 01 99	t	0,000	Varvin- welding mixture
6.	Other hydraulic oils	13 01 13*	t	0,800	Hydraulic oil
7.	Non-chlorinated mineral engine oils, gearbox oils and lubricating oils	13 02 05*	t	2,000	Motor oil
8.	Other insulation oils	13 03 10*	t	0,050	Transformer oils
9.	Packaging containing residues of substances or contaminated by hazardous substances	15 01 10*	t	0,000	Metal packaging waste from the used oils 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	0,130	Oil and air filters, oily cotton wiping cloth
11.	Used vehicles, containing neither liquids nor other hazardous components	16 01 06	t	0,000	Used vehicles
12.	Lead batteries	16 06 01*	t	2,700	Accumulators
13.	Nickel-cadmium batteries	16 06 02*	t	0,357	Ni-Cd batteries
14.	Copper, bronze, brass	17 04 01	t	0,000	Copper line
15.	Iron and steel	17 04 05	t	27,100	Iron over 6 mm
16.	Aluminium	17 04 02	t	0,210	Waste aluminium sheets
17.	Insulation materials other than those indicated under 170601 and 170603 - Glass wool	17 06 04	t	0,000	Mineral wool
18.	Plastics and rubber	19 12 04	t	6,370	Conveyer belting
19.	Fluorescent tubes and other mercury-containing waste	20 01 21*	t	0,095	Fluorescent tubes and other mercury-containing waste
20.	Plastics	20 01 39	t	2,580	KOTERM panels

21.	Discarded electrical and electronic equipment other than the one indicated under 20 01 21, 20 01 23 and 20 01 35	20 01 36	t	0,006	Sodium lamps

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 2017. Overview and status of inspections and decisions is given in the Table 22.

Table 22

***KOLUBARA MB* BRANCH – *KOLUBARA-METAL* BRANCH**		
Overview and status of permits in 2017		
No.	**Mark**	**Name**
1.	501-15/2016-08 26.09.2017	**Minutes** on inspection in Elmont Unit.

1.2. Monitoring and Environmental Impact

1.2.1. Air Emission Measurements

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 2017 according to the Contract no. 02-2210/2 dated 04.05.2016 for provision of the service "Air Quality Analysis", individual air emission measurements were performed by accredited laboratory *Occupational Safety Institute, Novi Sad* (Table 22.). 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), and dust.

Measured emission values were compared to emission limit values prescribed by Regulation. Emission measurement results are given in tables 23 and 24, per metering points.

Table 23

BRANCH *MB KOLUBARA– KOLUBARA-METAL* BRANCH						
Air emission measurements in 2017						
Pollutant	**GOSTOL line (E_M) (mg/Nm³)**	**Steel structures-left outlet hall (E_M) (mg/Nm³)**	**Steel structures-right outlet hall (E_M) (mg/Nm³)**	**ELV (mg/Nm³)**	**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*
Dust	7,02	1,95	5,71	150	≥200	Compliant with legal regulations*

E_M- the highest value of emission measurement results reduced by the value of the measurement uncertainty

Table 24

BRANCH *MB KOLUBARA – KOLUBARA-METAL* BRANCH					
Air emission measurements in 2017					
Pollutant	**Assembly unit coal boiler (E_M) (mg/Nm³)**	**ELMONT unit coal boiler (E_M) (mg/Nm³)**	**ELV (mg/Nm³)**	**Result**	**Assessment of results**
CO	-	2.894,82	605,84	300	Not compliant with legal regulations*
Nitrogen oxides NO_2	<2,05	240,98	171,01	650	Compliant with legal regulations*
SO_2	<2,86	1.263,22	1.146,6	1700	Compliant with legal regulations*
Dust	3,74	-	74,22	150	Compliant with legal regulations*

E_M- 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 prescribingemission 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. 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. Water Emission Measurements

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, wastewater and treated water, Kolubara River water and ground water quality control is regularly being conducted by the authorized and accredited laboratory four times a year.

In 2017, in accordance with the Contracts No. 04.02-1454/21-2016 dated 14.01.2016 and 04.04-15264/238-17 dated 17.05.2017, 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, sulphates, conductivity, ammonia, total nitrogen, chloride, $KMnO_4$ demand, COD, BOD_5, iron, manganese, filtered water vaporisation residue, unfiltered water vaporisation residue, suspended solids, particulate matter, phosphates, phenol, arsenic, mineral oil, and microbiological analysis of water. Results of physical-chemical testing of wastewater for 2017 are given in Tables 25a, 25b, 25v and 25g.

Table 25 a

BRANCH *MB KOLUBARA – KOLUBARA-METAL* BRANCH							
Wastewater physical-chemical testing in 2017– the first quarter							
Tested parameter	**Measured value**						**Reference value***
	I	**II**	**III**	**IV**	**V**	**VI**	
Water temperature (˚C)	13,4	12,4	16,5	12,8	13,4	11,5	30
Turbidity (NTU)	55	38	33	31	35	37	-
Conductivity (µS/cm)	472	491	610	564	499	598	-
Total phosphorus (mg/l)	0,415	0,160	0,046	0,104	0,052	0,032	-
Fe (mg/l)	2,590	0,550	0,540	2,880	0,52	0,170	-
Mn (mg/l)	0,060	0,050	0,760	0,260	0,100	0,050	-
As (mg/l)	<0,003	<0,003	<0,003	<0,003	<0,003	<0,003	-
Mineral oil (TPH) (mg/l)	73,04	<0,01	16,68	0,817	<0,01	<0,01	10
Total number of fecal coliform bacteria (cfu/100ml)	$1,2x10^2$	60	$1,9x10^3$	60	$1,2x10^4$	60	-

Table 25 b

BRANCH *MB KOLUBARA – KOLUBARA-METAL* BRANCH							
Wastewater physical-chemical testing in 2017– second quarter							
Tested parameter	**Measured value**						**Reference value***
	I	**II**	**III**	**IV**	**V**	**VI**	
Water temperature (˚C)	20,5	18,7	17,4	21,9	18,8	18,6	30
Turbidity (NTU)	46	75	31	99	287	57	-
Conductivity (µS/cm)	246	364	639	512	614	383	-
Total phosphorus (mg/l)	0,221	0,073	0,067	0,28	0,19	0,10	-
Fe (mg/l)	0,73	2,61	3,49	0,64	1,54	3,25	-
Mn (mg/l)	0,058	0,081	0,540	0,075	0,064	0,17	-
As (mg/l)	<0,003	<0,003	<0,003	<0,003	<0,003	<0,003	-
Mineral oil (TPH) (mg/l)	0,572	<0,01	0,067	6,265	<0,01	0,033	10
Total number of fecal coliform bacteria (cfu/100ml)	$<60x10^2$	$1,8x10^2$	$4,7x10^3$	$8,9x10^3$	$3,7x10^4$	$8,1x10^2$	-

Table 25 v

BRANCH *MB KOLUBARA – KOLUBARA-METAL* BRANCH							
Wastewater physical-chemical testing in 2017– third quarter							
Tested parameter	**Measured value at measuring point**						**Reference value***
	I	**II**	**III**	**IV**	**V**	**VI**	
Water temperature (˚C)	25,4	24,7	21,9	23,0	24,2	23,4	30
Turbidity (NTU)	128	195	45	63	275	74	-
Conductivity (µS/cm)	765	726	609	300	693	666	-
Total phosphorus (mg/l)	0,11	0,79	0,13	0,03	0,53	0,14	-
Fe (mg/l)	1,53	31,08	1,326	1,650	2,30	0,942	-
Mn (mg/l)	0,196	0,513	0,122	0,073	0,070	0,094	-
As (mg/l)	<0,003	<0,003	<0,003	<0,003	<0,003	<0,003	-
Mineral oil (TPH) (mg/l)	0,391	1,328	0,175	1,140	0,160	0,793	10
Total number of fecal coliform bacteria (cfu/100ml)	$8,1x10^4$	$<60x10^2$	$7,8x10^4$	$1,9x10^3$	$1,9x10^4$	<60	-

Table 25 g

BRANCH *MB KOLUBARA – KOLUBARA-METAL* BRANCH							
Wastewater physical-chemical testing in 2017– fourth quarter							
Tested parameter	**Measured value at measuring point**						**Reference value***
	I	**II**	**III**	**IV**	**V**	**VI**	
Water temperature (˚C)	7,7	11,0	24,0	7,6	13,2	8,7	30
Turbidity (NTU)	29	45	<0,2	283	12,5	100	-
Conductivity (µS/cm)	577	503	527	158,4	635	225	-
Total phosphorus (mg/l)	0,04	0,201	0,10	0,08	0,12	0,11	-
Fe (mg/l)	0,734	4,048	0,489	0,686	1,343	0,064	-
Mn (mg/l)	0,066	0,375	0,218	0,026	0,095	0,055	-
As (mg/l)	<0,003	<0,003	<0,003	<0,003	0,004	0,008	-
Mineral oil (TPH) (mg/l)	1,120	12,31	0,511	1,430	3,720	0,386	10
Total number of fecal coliform bacteria (cfu/100ml)	$1,2x10^2$	$60x10^2$	$1,5x10^3$	<60	$1,3x10^3$	<60	-

*Reference value: Regulation prescribing water emission limit values and deadlines for their reaching (Official Gazette of RS, no.67/2011, 48//2012 and 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 III and V are outlets of rain sewage from Production and Regeneration Unit and Overhaul Unit.

Based on these results it is concluded that treated wastewater at the separator outlet is of satisfactory quality, in terms of reaching values prescribed in the Regulation and that separators are working properly. Also, the concentration of suspended solids, organic matter (COD), iron, phenol and arsenic in wastewaters at the separator outlet is being significantly reduced.

1.2.3. Waste

Waste amounts generated in 2017 in *Kolubara Metal* Branch are provided in Table 26 according to Serbian waste management legislation.

Table 26

BRANCH *MB KOLUBARA – KOLUBARA-METAL* BRANCH					
Generated types of waste in 2017					
Official nomenclature of the Rules defining waste categories, its testing and classification OG RS № 56/10					
No	**Name**	**Index number**	**Unit of meas.**	**Waste amount**	**Note**
1	Used printer cartridges other than the one indicated under 08 03 17	08 03 18	t	1,300	Cartridgers
2	Chips from ferrous metals processing	12 01 01	t	673,000	Chips from metals processing
				385,000	Steel pieces (idlers and axes)
3	Chips from non-ferrous metals processing	12 01 03	t	1,500	Chips from ferrous metals processing (copper, bronze, aluminium)
4	Mineral machining oils free of halogens	12 01 07	t	0,000	Mineral machining oils free of halogens
5	Oily water from oil/water separator	13 05 07*	t	10,000	Oily water from oil/water separator
6	Packaging containing residues of substances or contaminated by hazardous substances	15 01 10*	t	15,600	Metal packaging waste from the used oils and lubricants (metal packaging from colors, varnishes and thinners)
7	Absorbent and filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	0,000	Oil and air filters, oily cotton wiping cloth
8	Used tires	16 01 03	t	19,400	Tyres, waste conveyor belting with steel cord, wipers, idler rubber rings
9	Used vehicles not containing liquid or other hazardous components	16 01 06	t	93,000	Отпадна возила
10	Coloured metals	16 01 18	t	6,500	Waste enamelled wire and copper wire
11	Ni-Cd batteries	16 06 02*	t	0,000	Ni-Cd batteries
12	Iron and steel	17 04 05	t	930,000	Iron and steel over 3 mm
				0,000	Iron and steel with rubber coating
				9,000	Iron and steel up to 3 mm, sheets (switching cubicles, vulcanization container)

13	Scrap metal contaminated with hazardous substances	17 04 09*	t	1,500	Oily idler bearings, oily sliding bearings made of bronze
14	Paper and cardboard	20 01 01	t	1,750	Paper and cardboard
15	Fluorescent tubes and other mercury-containing waste	20 01 21*	t	0,500	Fluorescent tubes, mercury light bulbs and other mercury-containing waste
16	Discarded electrical and electronic equipment other than the one indicated under 20 01 21; 20 01 23 and 20 01 35	20 01 36	t	0,000	Electronic waste – computer equipment
				0,940	Electrical tools and equipment
17	Plastics	20 01 39	t	0,000	Plastics, KOTERM panels
18	Metals	20 01 40	t	0,000	Packaging drums

The cumulative amount of waste for the Kolubara MB (*Open Cast Mines Barosevac* Branch, *Prerada* Branch and *Kolubara-Metal* Branch) generated 2017 is shown in Table 27 in line with the Serbian waste management legislation.

Table 27

BRANCH *MB KOLUBARA* - *OPEN CAST MINES BAROSEVAC* BRANCH, *PRERADA* BRANCH AND *KOLUBARA-METAL* BRANCH													
	Official nomenclature of the Rules defining waste categories, its testing and classification **OG RS № 56/10**		**Unit**	**Waste in 2017**									
				„Површински Копови – Барошевац“,						**Total; Prerada**	**Total: Kolubara Metal**	**Total: Kolubara MB**	**Note**
				Field D	**Field B**	**Tamnava West Field**	**Tamnava East Field**	**Auxiliary mechaniz.,**	**Total: OCM**				
	Name	Index number		Generated waste amount									
1	Waste paint and varnish containing organic solvents or other dangerous substances-Paints and solvents	08 01 11*	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	0,000	**0,000**	Paints, solvents and varnishes
2	Used printer cartridges other than the one indicated under 08 03 17	08 03 18	t	0,037	0,015	0,074	0,050	0,050	**0,226**	0,145	1,300	**1,671**	Cartridges
3	Boiler ash, slag and dust (except boiler dust indicated under 10 01 04)	10 01 01	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	0,000	**0,000**	Ash and slag

4	Chips from ferrous metals processing	12 01 01	t	25,000	0,000	3,580	0,000	0,000	**28,580**	0,200	673,000	**701,780**	Chips from metals processing
				0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	385,000	**385,000**	Steel pieces
5	Chips from non-ferrous metals processing	12 01 03	t	0,542	0,000	0,000	0,000	0,000	**0,542**	0,000	1,500	**2,042**	Chips from ferrous metals processing (copper, bronze, aluminium
6	Mineral machining oils free of halogens	12 01 07	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	0,000	**0,000**	Mineral machining oils free of halogens
7	Wastes not otherwise specified	12 01 99	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	0,000	**0,000**	Varvin – welding mixure
8	Other hydraulic oils	13 01 13*	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,800	0,000	**0,800**	Hydraulic oil
9	Non-chlorinated mineral engine oils, gearbox oils and lubricating oils	13 02 05*	t	1,380	0,000	5,879	2,480	70,000	**79,739**	2,000	0,000	**81,739**	Motor oil
10	Non-chlorinated mineral engine oils	13 01 10*	t	0,000	0,000	1.025	0,000	0,000	**1,025**	0,000	0,000	**1,025**	Hydraulic oil
11	Silt from oil/water separator	13 05 02*	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	0,000	**0,000**	Oily water after flood
12	Other engine oils, gearbox oils and lubricating oils	13 02 08	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	0,000	**0,000**	Gearbox oil 13 02 08* other engine oils, gearbox oils and lubricating oils
13	Other insulation oils and heat transmission	13 03 10*	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,050	0,000	**0,050**	Transformer oils
14	Oily water from oil/water separator	13 05 07*	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	10,000	**10,000**	Oily water from oil/water separator
15	Wastes not otherwise specified	13 08 99*	t	0,000	0,000	0,200	0,000	0,000	**0,200**	0,000	0,000	**0,200**	Fats and oils with impurities, residue from oil filtration
16	Packaging containing residues of substances or contaminated by hazardous substances	15 01 10*	t	0,000	0,260	0,000	0,000	15,000	**15,260**	0,000	15,600	**30,860**	Metal packaging waste from the used oils and lubricants

17	Absorbent and filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	0,400	2,430	0,550	0,748	7,000	**11,128**	0,130	0,000	**11,258**	Oil and air filters, oily cotton wiping cloth
18	Used tires	16 01 03	t	5,000	0,000	7,800	10,000	30,000	**52,800**	0,000	19,400	**72,200**	Tyres, waste conveyor belting with steel cord, wipers, idler rubber rings
19	Used vehicles not containing liquid or other hazardous components	16 01 06	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	93,000	**93,000**	Used vehicles
20	Brake pads containing asbestos	16 01 11*	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	0,000	**0,000**	Waste from asbestos brake linings and packings
21	Non-ferrous metals	16 01 18	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	6,500	**6,500**	Waste enamelled wire and copper wire
22	Lead batteries	16 06 01*	t	0,470	0,112	0,109	0,000	0,000	**0,691**	2,700	0,000	**3,391**	Accumulators
23	Ni-Cd batteries	16 06 02	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,357	0,000	**0,357**	Ni-Cd batteries
24	Copper, bronze, brass	17 04 01	t	0,233	0,000	0,000	1,060	0,000	**1,293**	0,000	0,000	**1,293**	Copper, Copper line
25	Aluminum and its alloys	17 04 02	t	0,000	0,500	0,000	0,000	0,000	**0,500**	0,210	0,000	**0,710**	Scrap aluminum sheet
26	Iron and steel	17 04 05	t	78,000	16,400	11,060	25,700	0,000	**131,160**	0,000	0,000	**131,160**	Alloy steel (plate segments, crusher hammers, excavator teeth)
				7,000	0,200	0,000	0,000	0,000	**7,200**	27,100	0,000	**34,300**	Iron over 6 mm
				15,600	0,000	0,000	42,135	0,000	**57,735**	0,000	930,000	**987,735**	Iron and steel over 3 mm
				12,000	2,751	0,000	17,500	0,000	**32,251**	0,000	0,000	**32,251**	Iron and steel with rubber lining
				33,000	72,420	35,120	0,000	0,000	**140,540**	0,000	9,000	**149,540**	Iron and steel sheets up to 3 mm (switching cabinets, vulcanization containers)

27	Scrap metal contaminated with hazardous substances	17 04 09*	t	17,000	0,000	0,000	0,000	0,000	**17,000**	0,000	1,500	**18,500**	Oily idler bearings
28	Cables other than those indicated in 17 04 10	17 04 11	t	60,000	80,260	50,000	15,000	0,000	**205,260**	0,000	0,000	**205,260**	High voltage copper cables with insulation
				30,000	0,000	0,000	0,000	0,000	**30,000**	0,000	0,000	**30,000**	Low voltage copper cables with insulation
29	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**	Waste asbestos
30	Insulation materials other than those indicated under 170601 and 170603	17 06 04	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	0,000	**0,000**	Mineral wool
31	Plastics and rubber	19 12 04	t	0,000	30,120	0,000	0,000	0,000	**30,120**	6,370	0,000	**36,490**	Plastics and rubber, conveyer belting with steel cord, wipers, rubber idler rings
32	Other waste from mechanical waste treatment that contains hazardous substances	19 12 11*	t	0,000	5,760	0,000	0,000	0,000	**5,760**	0,000	0,000	**5,760**	Greasy rubber-plastic seals and hydraulic hoses
33	Paper and cardboard	20 01 01	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	1,750	**1,750**	Paper and cardboard
34	Fluorescent tubes and other mercury-containing waste	20 01 21*	t	0,040	0,000	0,000	0,000	0,010	**0,295**	0,095	0,500	**0,890**	Fluorescent tubes, mercury light bulbs and other mercury-containing waste
35	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
36	Discarded electrical and electronic equipment other than those indicated under 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	t	0,000	6,580	0,380	0,480	0,000	**7,440**	0,000	0,000	**7,440**	Electrical and electronic equipment
37	Discarded electrical and electronic equipment other than	20 01 36	t	24,050	20,000	0,000	0,000	0,000	**44,050**	0,000	0,000	**44,050**	Waste electric motors
				0,000	0,000	0,000	0,000	0,000	**0,000**	0,006	0,000	**0,006**	Sodium bulbs

	those indicated under y 20 01 21, 20 01 23 and 20 01 35			0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	0,000	**0,000**	Electronic waste-computer equipment
				0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	0,940	**0,940**	El. tools and equipment
38	Plastics	20 01 39	t	0,000	0,000	0,000	0,000	0,000	**0,000**	2,580	0,000	**2,580**	Plastics, KOTERM panels
39	Metals	20 01 40	t	0,000	0,000	0,000	0,000	0,000	**0,000**	0,000	0,000	**0,000**	Packaging drums

Table 28 shows the implementation of the takeover amount of waste that Branch MB "Колубара" had in the period 01.01-31.12.2017.

Table 28

BRANCH MB KOLUBARA			
Takeover amount of waste in 2017			
No	**Waste name**	**Index nuber of waste**	**Takeover amount (kg)**
1.	Paper,cardboard and PET packaging	Paper,cardboard and PET packaging	4.800,00
2.	Oils and lubricants: Wastes not otherwise specified - spent wax and grease, mineral non-chlorinated hydraulic oils, mineral non-chlorinated engine oils, gearshift and lubricating oils, other motor oils, gearshift and lubricating oils, other insulating and heat transfer oils	Oils and lubricants: Wastes not otherwise specified - spent wax and grease, mineral non-chlorinated hydraulic oils, mineral non-chlorinated engine oils, gearshift and lubricating oils, other motor oils, gearshift and lubricating oils, other insulating and heat transfer oils	56.320,00
3.	Copper, bronze, brass, aluminum and its alloys, bending and processing of non-ferrous metals, cables other than those specified in 17 04 10, waste cartredges other than that mentioned in 08 03 17, metal waste contaminated with hazardous substances,	Copper, bronze, brass, aluminum and its alloys, bending and processing of non-ferrous metals, cables other than those specified in 17 04 10, waste cartredges other than that mentioned in 08 03 17, metal waste contaminated with hazardous substances,	6.040,00
4.	Iron and steel-scrap vehicles, sheet metal up to 3mm, ferrous and other iron (FEO) and unclassified, mixed categories of iron and steel, cutting tool,	Iron and steel-scrap vehicles, sheet metal up to 3mm, ferrous and other iron (FEO) and unclassified, mixed categories of iron and steel, cutting tool,	1.447.760,00
5.	Iron and steel-toothed teeth, hammers with crushers, slip segments, ferromelope spool - scraping and ferrometals processing	Iron and steel-toothed teeth, hammers with crushers, slip segments, ferromelope spool - scraping and ferrometals processing	213.920,00
6.	Waste vehicles that do not contain any liquid or other hazardous components	Waste vehicles that do not contain any liquid or other hazardous components	94.800,00
7.	Scraping and processing of ferro-metal	Scraping and processing of ferro-metal	531.000,00
8.	Lead batteries - accumulators	Lead batteries - accumulators	15.120,00
9.	Wastes not otherwise specified, iron and steel, incompletely disposed construction machinery, aggregates, parts and other auxiliary equipment	Wastes not otherwise specified, iron and steel, incompletely disposed construction machinery, aggregates, parts and other auxiliary equipment	2.278.440,00
10.	Tires and rubber rings - waste tires, plastic and rubber, plastics	Tires and rubber rings - waste tires, plastic and rubber, plastics	83.740,00
11.	Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components - EE dangerous and discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35 - EE non-hazardous waste , fluoxes	Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components - EE dangerous and discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23	26.460,00

		and 20 01 35 - EE non-hazardous waste , fluoxes	
12.	Non-ferrous metals copper, bronze, brass, aluminum and its alloys, scraping and treatment of non-ferrous metals, scrap metals contaminated with dangerous substances, cables other than those specified in 17 04 10 and waste toner for printing other than those specified in 08 03 17	Non-ferrous metals copper, bronze, brass, aluminum and its alloys, scraping and treatment of non-ferrous metals, scrap metals contaminated with dangerous substances, cables other than those specified in 17 04 10 and waste toner for printing other than those specified in 08 03 17	163.820,00
13.	Waste rubber - Conveyor belts - steel cord ribbon, belt conveyor belts, plastic and rubber	Waste rubber - Conveyor belts - steel cord ribbon, belt conveyor belts, plastic and rubber	258.400,00
14.	Waste Rubber - Conveyor belts - steel cord ribbon, belt conveyor belts	Waste Rubber - Conveyor belts - steel cord ribbon, belt conveyor belts	153.120,00
15.	Scraping and processing of non-ferrous metals - Ferrometer spool - Hollow sponge with admixtures of rubber and plastic nozzles; iron and steel - steel of various sizes and shapes, steel of various sizes and shapes with various impurities and earth, steel, rolls and shafts	Scraping and processing of non-ferrous metals - Ferrometer spool - Hollow sponge with admixtures of rubber and plastic nozzles; iron and steel - steel of various sizes and shapes, steel of various sizes and shapes with various impurities and earth, steel, rolls and shafts	1.158.410,00
TOTAL: MB KOLUBARA BRANCH			**6.492.150,00**

Table 29 shows an overview of the realization of the disposed waste of MB "Kolubara" in the period 01.01-31.12.2017.

Table 29

BRANCH MB KOLUBARA			
Disposed waste in 2017			
No	**Name of waste**	**Index number of waste**	**Taken amount (kg)**
1.	Disposal of oily protective cloth and oily cloths – absorbent and the filter materials (including oil filters which are not otherwise specified), wiping cloths, protective clothing, which are contaminated by hazardous subst.	150202*	9.820,00
2.	Disposal of waste oil filters and waste fuel filters – absorbent and filter materials (including oil filters which are not otherwise specified), wiping cloths, protective clothing, which are contaminated by hazardous subst.	150202*	7.120,00
3.	Disposal of hazardous waste – wastes not otherwise specified – welding compound, other waste from mechanical treatment of waste containing hazardous substances – impregnated rubber-plastic seals and hydraulic hoses, asbestos-containing brake linings, asbestos-containing insulating materials	120199, 191211*, 160111*, 170601*	35.549,00
4.	Maintenance of seven separators of oil, grease, sludge and lagoon – slugde from oil/water separator, oily water from oil/water separator	130502*, 130507*	8.360,00
5.	Disposal of waste – packaging containing residues of hazardous substances/used wax and grease	150110*	15.620,00
6.	Disposal of waste emulsion from waste oil – mineral machining oils that do not contain halogens	120107*	1.760,00

7.	Disposal of hazardous waste – discarded inorganic chemicals consisting of or containing dangerous substances – laboratory chemicals, including mixtures of chemicals	160507*/160508*	240,00
TOTAL: BRANCH MB KOLUBARA			**78.469,00**

1.3. Working Environment Monitoring, Occupational Health and Safety

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

- **Working environment monitoring**
  - working environment noise measurement
- **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 30.

Table 30

KOLUBARA MB BRANCH			
Working environment noise in 2017			
Organisational unit	**Unit**	**Registrated noise level (dB(A))**	**Permitted noise level (dB(A))**
Open Cast Mines	There was no measuring in 2017		
Prerada	There was no measuring in 2017		
Metal	"Pogon Proizvodnja"	On 29 points, higher than 85	85
	"Sopstveno održavanje"	On 6 points, higher than 85	85
	„Pogon Remont"	On 22 points, higher than 85	85
	„Pogon Elmont"	On 6 points, higher than 85	85
HQ	Measurements planned for 2018		

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**

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 the course of 2017, 6,377 persons (newly recruited employess, those changing their workplace, contractors, students, and pupils engaged through temporary-occasional employment contract) underwent health and safety training in the Kolubara MB Branch.

Table 31 shows the number of employees who were tested to check their knowledge.

Табела 31

BRANCH MB KOLUBARA			
Test in 2017			
Organisational unit	**Invited**	**Tested**	**%**
HQ MB Kolubara	1.684	540	32,07
Organisational unit "Open Cast Mines"	6.803	5.778	84,93
Organisational unit "Kolubara Metal"	2.079	1.783	85,76
Kolubara Prerada	1.595	1.365	85,58
Kolubara Projekt	87	0	0,00
TOTAL: BRANCH MB KOLUBARA	**12.248**	**9.466**	**77,29**

- **Work injuries**

Table 32 shows the 2017 work injuries data.

Table 32

BRANCH MB KOLUBARA						
Work injuries in 2017						
Organisational unit	**Number of employees**	**Injuries compared to the number of employees**				
		Easy	**Heavy**	**Fatalities**	**Total**	**%**
Open Cast Mines	6.803	98	36	2	136	2,00
Prerada	1.595	7	9	0	16	1,00
Metal	2.079	53	17	0	70	3,37
HQ	1.684	9	9	0	18	1,07
Projekt	87	0	0	0	0	0,00
TOTAL: BRANCH MB KOLUBARA	**12.248**	**167**	**71**	**2**	**240**	**1,96**

There were two fatalities in the Kolubara MB Branch during 2017.

On September 13th, 2017, Ivan Gačić, employed at the position of: electrical engineer working in shifts, was fataly injured at around 9:10 pm. The employee was struck by a electric shock during the execution of works in a high-voltage cell used for power supply of the conveyor belt drive station 2.9 b.

On November 13th, 2017, Željko Radovanović, employed at the position of: locksmith on the first ECS system, was fataly injured ay about 3.30 pm. The employee was injured in a traffic accident, when a passenger vehicle run into his vehicle when he was coming home from work and crossing the public road.

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 with screens are referred to examination.

Tabe 33 provides periodic examinations data for employees working in high-risk workplaces in 2017.

Table 33

BRANCH MB KOLUBARA											
Work capability in 2017											
Organisational unit	**Number of employees**	**Previous and periodical examinations**				**Work capability**					
		Referred to examination		**Examined**		**Capable**		**Limited capability**		**Not capable**	
		no.	**%**	**no.**	**%**	**no.**	**%**	**no.**	**%**	**no.**	**%**
Open Cast Mines	6.803	6.708	98,6	6.296	93,86	4.571	72,60	1.647	26,16	78	1,24
Prerada	1.595	1.614	101,19	1.441	89,28	594	41,22	823	57,11	24	1,67
Metal	2.079	1.325	63,73	1.295	97,74	128	9,88	1.149	88,73	18	1,39
HQ and "Projekt"	1.771	602	33,99	542	90,03	381	70,30	158	29,15	3	0,55
TOTAL: BRANCH MB KOLUBARA	**12.248**	**10.249**	**83,68**	**9.574**	**93,41**	**5.674**	**59,26**	**3.777**	**39,45**	**123**	**1,28**

Note: * Number of employees as of 31.12.2017
** This number includes the retired employees and who because of retraining (after examination) had to be examined again, thus in OU Prerada, the number of reffered employees to examination is higher than the number of employees.

1.4. Public complaints

Public complaints in 2017 are given in Table 34.

Table 34

BRANCH MB KOLUBARA						
Public complaints for 2017						
No.	**Applicant**	**Form of submission**	**Filling number**	**Date of submission**	**Subject**	**Note**
1	Slavica Vukojičić	form	12.01.65209/1-17	02.02.2017.	Request for the household expropriation	Damage to houses and auxiliary facilities (Veliki Crljeni)
2	Dragan Petrović	form	12.01.66817/1-17	03.02.2017.	Request for the household expropriation	Land subsidence and cracking of the residential building (Veliki Crljeni)
3	Milovan Glišić	form	12.01.66885/1-17	03.02.2017.	Complaint for damage	Damage to houses and auxiliary facilities (Veliki Crljeni)

4	Dragan Stamenković	form	12.01.75080/1-17	06.02.2017.	Request for the household expropriation	Damage to houses and auxiliary facilities (Veliki Crljeni)
5	Milanka Radičević	form	12.01.77669/1-17	07.02.2017.	Request for the household expropriation	Damage to facilities (Veliki Crljeni)
6	Ružica Kiličanin	form	12.03.78200/1-17	07.02.2017.	Request for the household expropriation	Damage to facilities, noise, dust (Veliki Crljeni)
7	Milovan Aćimović	form	18.00-81243/1-17	08.02.2017.	Request for the household expropriation	Damage to facilities, noise and pollution (Veliki Crljeni)
8	Miroslav Milanović Verica Milanović	form	12.01.80648/1-17	08.02.2017	Request for the household expropriation	Damage to facilities, noise and air pollution (Veliki Crljeni)
9	Nebojiša Živanović	form	18.00-81234/1-17	08.02.2017.	Request for the household expropriation	Damage to facilities, noise and air pollution (Veliki Crljeni)
10	Slobodan Vasić	form	12.01-119669/1-17	03.03.2017.	Request for the household expropriation	Damage to house and auxiliary facilities (Veliki Crljeni)
11	Stana Vasiljević	form	12.01-82487/1-17	09.02.2017.	Request for the household expropriation	vibration, noise and dust (Veliki Crljeni)
12	Živomir Živanović	form	12.01-82477/1-17	09.02.2017.	Request for the household expropriation	Damage to facilities, noise and air pollution (Veliki Crljeni)
13	Serbia on the move-Lazarevac Club and citizens of Veliki Crljeni	Free form	12.01-341003/1-17	07.07.2017.	The request for adaptation of the park	Requesting a consent from EPS to adapt the plot to the park, on behalf of the inhabitants of Veliki Crljeni
14	Mikailo (Tihomir) Rajković	Free form	04.04.-621099/1-17	08.12.2017.	Request for the household expropriation	Difficult living conditions (Zeoke)
15	Živana (Tihomir) Dragojlov	Free form	04.02.-621130/1-17	08.12.2017.	Request for the household expropriation	Difficult living conditions - request regarding Mikailo (Tihomir) Rajković under no.15 (Zeoke)

16	Association “Tihi lug”	Free form	12.01.423649/3-17	18.12.2017.	Request for the plan fulfillment according to the Regulation of the Governmnet of the Republic of Serbia, Official Gazette no.107/17	Protection of the area, resettlement of the population, relocation of the settlement, regional and local aspects, settlements that are in contact with the mining and energy complex (Veliki Crljeni)
17	Stana Žižić	Free form	12.01-648977/1-17	22.12.2017.	Request for the household expropriation	The Complainant considers that she was damaged because her household was not expropriated (Vreoci)

The complaints were forwarded electronically from the HQ Unit for stakeholders engagement, and it was requested form the expert serviced of the Branch MB Kolubara to collect data and submit a proposal for a response.

The documents flow and further communitaction was given in the Table 148.

2. KOSTOLAC TPPS & OCMS BRANCH - OPEN CAST MINES

Kostolac TPPs and OCMs Branch comprise four organisational units:

- **Drmno Open Cast Mine (Drmno OCM)**
- **Cirikovac Open Cast Mine (Cirikovac OCM)**
- **Kostolac A TPP**
- **Kostolac B TPP**

2.1. Overview and Status of Permits

In 2017 there was no overview and status of permits, licences and other necessary approvals. New requests for permits are not done.

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. Water Emission Measurements

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 Cirikovac OCM dewatering system is accumulated in the mine vicinity. Klenovnik OCM water amounts are low and they are not measured.

Drainage water quality control originating from the Drmno OCM dewatering system in 2017 was carried out by an accredited laboratory Of Institute of Public Health Požarevac.

Table 35 shows the drainage water quality results for Drmno OCM in 2017.

Table 35

KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES					
Drainage water quality in 2017					
Drmno OCM	**Measuring point 1 (TEKO B)**	**Measuring point 2 (Drmno OCM HQ)**	**Draining well shaft Mlava**	**Draining well Drmno OCM LC 13**	**Draining well Drmno OCM LC 8**
Sulfates (mg/l)	87,80 – 213,80	2,00 – 16,70	80,40 – 150,00	30,50 – 207,70	41,90 – 245,40
Phenols (mg/l)	≤ 0,002	≤ 0,002 – 0,01	≤ 0,002	≤ 0,002	≤ 0,002
Electrical conductivity (µs/cm)	676 – 896	591 – 738	736 - 894	800 - 927	763 - 997
Arsenic (mg/l)	≤ 0,005	≤ 0,005	≤ 0,005	≤ 0,005	≤ 0,005

- **Sanitary water**

Potable and sanitary water used by the Drmno OCM comes from own sources. Potable water quality is controlled by the Pozarevac Public Health Institute. Water amounts are not recorded. Sanitary wastewater is treated and discharged over a separator into the internal sewage system.

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 36 shows the potable and sanitary water data amounts, together with the drainage water amounts for the Drmno OCM in 2017.

Table 36

KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES				
Water amounts in 2017 (m^3/y)				
Open cast mine		**Dewatering**	**Sanitary waters used by the mine**	
		Total water amounts	Water supply	Total amount
Klenovnik		15.120	Kostolac measurements 335	15.455
Ćirikovac	**Ash landfill dewatering**	116.726	Kostolac measurements 3216	139.160
	Pit	19.218	Kostolac measurements	-
Drmno	**Surface dewatering**	28.423.354	Bradarac (estimate) 20.723	33.747.603
	Deep dewatering	5.302.526		
TOTAL: KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES		**33.877.944**	**24.274**	**33.902.218**

2.2.3. Soil Emission Measurements

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 quality, indicators needed to assess the soil degradation risks and remediation programs development methodology (OG RS № 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 2015 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) 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. Also, 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. The results of measurements are not significantly different from the results of tests in 2012.

Note: The plan and program of environmental monitoring for Kostolac TPPs-OCMs Branches foresees the monitoring of the impact of the operation of the Kostolac TPPs-OCMs Branch to take place every two years.

Due to problems in the realization of public procurements (dealy in realization), the soil quality measurement in the vicinity of the Branch TPP-OCM Kostolac was not realized in 2017, and it is planned to start realization in early 2018.

- **Overview of Reclaimed Areas**

Areas expropriated in 2017, as well as the ones whose use has been changed are given in Table 37.

Total expropriated areas until 2018 were 4.051,08 ha. In 2017, 149,10 ha of new areas were purchased. 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 769,20 ha. When it comes to the reclaimed area under the forests, they increased by 31,53 ha, only on Drmno OCM 26,00 ha, while on Cirikovac OCM the area of 5,53 ha under the forest was reclaimed. Recultivated areas under arable land in 2017 were 32,00 ha, while there were no reclaimed areas under the orchards.

Table 37

KOSTOLAC TPPs and OCMs BRANCH – OPEN CAST MINES BRANCH																			
Reclaimed areas overview in 2017																			
Open cast mine	Total reclaimed area (ha))	Total land area registered (ha)		Total land area whose use has been changed (ha)		Land area containing structures (ha)		DUMP SITE AREAS (ha)				RECLAIMED AREAS (ha)							
								Inside		Outside		Forests		Arable land		Orchards		Nursery	
		2016	2017	2016	2017	2016	2017	стање 2016	2017	стање 2016	2017	стање 2016	2017	стање 2016	2017	стање 2016	2017	стање 2016	2017
Klenovnik	472,00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cirikovac	1.047,00	-	-	-	-	-	-	-	-	-	-	3,40	5,53	-	-	-	-	-	-
Drmno	2.382,98	181,00	-	322,00	-	1,41	-	769,20	-	-	-	39,70	26,00	242,40	32,00	2,00	-	7,50	-
Klicevac	149,10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**4.051,08**	**181,00**		**322,00**		**1,41**		**769,20**		-		**74,63**		**274,40**		**2,00**		**7,50**	

2.2.4. Living Environment Noise Measurements

Table 77 Chapter 5 contains aggregated data of the measured environmental noise levels for 2017 for the Kostolac TPPs & OCMs Branch (parts of the branch TPP Kostolac and Open Cast Mines).

2.2.5. Waste

Waste generated in 2017 is shown in a summury table for Kostolac TPP & OCMs Branch (parts of branch TPP Kostolac and OCM) within the Chapter 5 in Table 78 according to the Serbian waste management legislation.

Table 79 shows the amounts of sold waste from Kostolac TPP & OCMs Branch in 2017.

2.3. Working Environment Monitoring, Occupational Health and Safety

The 2017 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**

There were no working environment noise measurements in 2017.

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.

Table 38 shows the number of workers foreseen for training and the number of trained workers in 2017.

Table 38

KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES					
Training in 2017					
Organisational units	Number of employees	For training		Trained	
		Број	%	Број	%
Drmno OCM	1.601	1.298	81,07	1.294	99,69
Cirikovac OCM	79	49	62,03	0	0,00
HQ	561	116	20,68	116	100
TOTAL: KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES	**2.241**	**1.463**	**65,28**	**1.410**	**96,38**

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

- **Work injuries**

Table 39 provides the work injuries data for 2017.

Table 39

KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES						
Work injuries in 2017						
Organisational unit	**Number of employees**	**Injuries – employee number ratio**				
		Easy	**Heavy**	**Fatalities**	**Total**	**%**
Drmno OCM	1.601	4	5	2	11	0,69
Cirikovac OCM	79	0	0	0	0	0,00
HQ	561	1	1	0	2	0,36
TOTAL: KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES	**2.241**	**5**	**6**	**2**	**13**	**0,58**

In 2017, there were two fatalities in Kostolac TPPs-OCMs Branch, within the organizational unit open cast mines Kostolac.

1. On January 30th, 2017, Đalović Nenad, operator of the conveyor belt, was injured on the rubber conveyor belt J-III-4, in the organizational unit OCM Drmno at around 06:45 a.m. The injury occurred at the moment when Mr. Đalović went under the conveyor belt while the conveyor was in operation. On that occasion, there was a contact with the lower (reverse) part of the conveyor belt, where Mr. Đalović Nenad suffered serious unjuries, fractures of both arms and break of one femur. The injured died in hospital on February 4th, 2017.
2. On February 1st, 2017, Mr. Dušan Suzić, assistant of the excavator operator on the IV ECS system, suffered fatal injury in the organizational unit OCM Drmno, on the excavator SRs 1300, the auxiliary belt zone and the sheet metal of loading device, at around 2:25p.m. The fatal injury was caused when Mr. Dušan Suzić was caught between the auxiliary belt, belt no.3 on the excavator and the roller that is located below this auxiliary belt.

2.3.3. Health

All employees of the Kostolac Mining Basin are subject to medical examinations, while employees working in high-risk workplaces are subject to periodic medical examinations. Medical examinations are annually conducted by the Occupational Health Department of the Pozarevac Health Centre

Table 40 provides periodic examinations data verifying the work capability for 2017.

Table 40

KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES											
Work capability in 2017											
Organisational unit	**Number of employees**	**Periodical examinations**				**Work capability**					
		Referred to examination		**Examined**		**Capable**		**Limited capability**		**Not capable**	
		number	%	number	%	number	%	number	%	number	%
Drmno OCM	1.601	1.298	81,07	1.222	94,14	1.078	88,22	119	9,74	19	1,55
Cirikovac OCM	79	49	62,03	49	100	47	95,92	0	0,00	1	2,04

HQ	561	116	20,68	116	100	115	99,14	0	0,00	1	0,86
TOTAL: KOSTOLAC TPPs & OCMs BRANCH – OPEN CAST MINES	**2.241**	**1.463**	**65,28**	**1.387**	**94,81**	**1.240**	**89,40**	**119**	**8,58**	**21**	**1,51**

2.4. Public complaints

There were no public complaints in 2017.

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. Overview and Status of Permits

Table 41 provides an overview of obtained permits and applications for new permits or extension of existing ones in 2017.

Table 41

NIKOLA TESLA TPPs BRANCH			
Overview and status of permits in 2017			
Organisational unit	**Obtained permits and approvals (number and date)**	**Applications for new or extension of existing permits**	**Note**
TENT A TENT B TE KO A (unit A5)	Decision of the Ministry of Agriculture and Environmental Protection, no. 353-01-02635/2016-17 dated 16.01.2017, approving continuous pollutants emission measurements from stationary pollution sources for TENT A (units A1-A6), TENT B (units B1-B2) and Kolubara A TPP (unit A5)	-	-
TENT A	-	-	-
	-	-	-
	-	-	-
KOLUBARA A TPP	-	-	-
	-		-
MORAVA 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 2017 air quality measurements in the TENT A, TENT B and Kolubara TPP area were performed. Around the Kolubara TPP, measurements were conducted by the Mining Institute from Zemun and 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 but internally by the TENT Environmental Division laboratory (not accredited).

TENT A and TENT B

Air quality in the vicinity of TENT A and TENT B has been measured for over thirty years, internally by the Environmental Division authorised for total particulate matter (TPM) and SO_2 measurements. Between 2008 and 2013 such measurements were carried out by authorised laboratories. As of 2013 air quality monitoring has been conducted only internally, by the Environmental Division laboratory. Air quality monitoring results are presented in the Annual Report – Environmental Monitoring, Protection and Improvement of TENT A and TENT B submitted to the local and state authorities.

In 2017, around TENT A and TENT B, measurements of the total particulate matter content (TPM), sulphur dioxide and soot concentrations were performed. Total particulate matter (TPM) was measured on 18 measuring points, AND SO_2 and soot were measured on four measuring points.

During 2017 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 2017 TPM levels were measured on 8 measuring points, while SO_2, soot and total suspended particles PM_{10} were measured on 1 measuring point.

Morava TPP

There was no air quality monitoring in 2017.

Table 42 shows the 2017 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 SO_2, TPM and soot specified by the Regulation stipulating air quality monitoring conditions and requirements (OG RS № 11/2010, 75/2010, 63/2013). The above regulation is aligned with the European Union legislation.

Table 42

NIKOLA TESLA TPPs BRANCH					
Air quality in 2017					
Legal compliance (data or days exceeding legal limits)					
Air quality indicators		**Total particulate matter levels - TPM** (mg/m²/day)	**SO_2 concentration** (μg/m³)		
Averaging period		**Maximum permissible value (MPV)**	**LV**	**TV**	**TL**
One hour			**350**	**350**	**0**
***One day**			**125**		**-**
****One month**		**450**	**-**		
*****Calender year**		**200**	**50**		**-**
	*	-	No exceedance		

TENT A and TENT B	**	Data exceeding MPV, out of 18 measuring points, makes 5 of total 211 data (2,37%), of which: -2 measuring points, TENT A landfill area, no exceedance; - 3 measuring points, TENT B landfill area, 5 exceedances – 14,29% out of total data; - 4 measuring points – TENT A surroundings, no exceedance; -5 measuring points – TENT B surroundings, no exceedance; -4 measuring points in Obrenovac and its surroundings, no exceedance; -1 measuring point in Vladimirci, no exceedance.			-
	***	Data exceeding MPV, 18 measuring points, 1 exceedances 1, which makes 5,56%			-
KOLUBARA A TPP	*	-			No exceedance
	**	No exceedance			-
	***	On measuring point "TEK area at CWT" 50m from the CWT Building, mean annual value exceeded MPV and amounted to 226.89 mg/m^2/day. There was no MPV exceedance at the other seven measuring points			-
MORAVA TPP	**	No measurements			No measurements
	***	No measurements			
Air quality indicators		**Укупне суспендоване материје PM$_{10}$ (μg/m^3)**			**Soot (μg/m^3)**
Averaging period		**ГВ**	**ТВ**	**ГТ**	**Maximum permissible concentration (MPC)**
*** One day**		**50**	**50**	**0**	**50**
*****Calender year**		**40**	**40**	**0**	**50**
TENT A and TENT B	*	-	-	-	Number of data exceeding MPV-9, seven in January, one in May and one in August, amounting to 0,68% of the total 1.327. There were exceedances at three measuring points. Measurements are performed daily.
	**	-	-	-	-
	***	-	-	-	No exceedance
KOLUBARA A TPP	*	Number of data exceeding LV is total 109 (mostly during winter months), which amounts 29.95% of the total 364 data. Measurement is performed at one measuring point daily.	**-**	**-**	Number of data exceeding MPV-13 as follows: in October 2017 - 11 days and in November- 2 days, amounting to 3.57% of the total 364. Measurement is performed at one measuring point daily.
	***	Exceeding LV	**-**	**-**	-

Г 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 representing not a local but a global issue;
- Air pollution by ash particles PM_{10} 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. Air Emission Measurements

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 (unit A1), 105m (units A2 and A3) 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.

- **Individual measurements of pollutants air emission**

During 2017 individual emission measurements of air pollutants were conducted once a year at TENT B (unit B2), Kolubara TPP A Stack 2 (A2 and A3) and on Stack 3 (Unit A5) and Morava TPP, and twice a year at Kolubara TPP Unit A1. Monitoring Programme included the flue gas conditions measurements (temperature, pressure, and humidity), flow rate, oxygen content, mass concentrations and emission factors for sulphur dioxide (SO_2), nitrogen oxides (NOx - NO_2), carbon monoxide (CO), chlorine (HCl) 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.

Air pollutants emissions measurements 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.

Table 43 provides the individual measurements results of air pollutants emission for the TENT Brach carried out in 2017.

Table 43

NIKOLA TESLA TPPs BRANCH										
Individual air emission measurements for 2017										
Mass concentrations of pollutants (mg/Nm^3)										
Organisational unit	**TENT A**						**TENT B**		**ELV**	
Unit	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**B1**	**B2**	**ELV^1**	**ELV^2**
Capacity MWth	**660**	**660**	**932**	**943**	**934**	**934**	**1.809**	**1.826**		
SO_2	No measurements							3.313	**400**	**400**
NO_x (NO_2)								397	**500**	**500**
CO								17	**250**	**-**
Dust								49	**50**	**50**
Organisational unit	**Kolubara A TPP**							**Morava TPP**	**ELV**	
Unit, boiler	**A1**	**ELV**		**A2, A3**	**ELV**		**A5**	**ELV**		
		ELV^1	**ELV2**		**ELV^1**	**ELV^2**		**ELV^1**	**ELV^2**		**ELV^1**	**ELV^2**
Capacity MWth	**125,6**			**376,8**			**333,5**			**420,0**		
SO_2	1.749	**1.898**	**1.898**	1.817	**8**93	**8**93	1.107	1.066	1.066	5.303	**720**	**720**
	1.837			-								
NO_x (NO_2)	374	**600**	**600**	396	**600**	**600**	416	600	600	800	**600**	**600**
	393			-								

CO	45 46	**250**	**-**	45 -	250	**-**	65	250	-	16	**250**	**-**
Dust	951 1.121	**1.010*** **100**	**100**	1.187 -	**1.010*** **100**	**100**	70	**50*** **100**	**100**	34	**50*** **100**	**100**

[1]Regulation stipulating air emission limit values for combustion plants (OG RS 6/2016)
[2] Directive 2001/80/EC – Large Combustion Plants
*Guaranteed projected values

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.

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.

Table 44 provides analysis of individual air emission measurements data for 2017 in terms of their legal compliance for different TENT Branch organisational units.

Table 44

NIKOLA TESLA TPPs BRANCH			
Organisational unit	**Legal compliance – air emissions in 2017**		
	Dust	**SO_2**	**NO_x (NO_2)**
TENT A	No measurements		
	No measurements		
TENT B	Emission: - within ELV (RS and EU) unit B2	Emission: - above ELV (RS and EU) unit B2	Emission: - within ELV (RS and EU) unit B2
KOLUBARA A TPP	Emission: - above ELV (RS and EU) unit A1 (1 measurement), and stack units A2 + A3 - above LV (RS) and below LV (EU) unit A5, - below LV (RS) unit A1 (1 measurement)	Emission: - above ELV (RS and EU) units A2, A3 and A5 -below LV (RS) unit A1	Emission: - below ELV (RS and EU) all units TPP Kolubara
MORAVA TPP	Emission: -within ELV (RS and EU)	Emission: - above ELV (RS and EU)	Emission: - above ELV (RS and EU)

Legal compliance is evaluated by comparing the measured values of air emissions with the emission limit values (ELVs) prescribed by the Regulation stipulating air pollutants emission limit values from combustion plants (OG RS № 6/2016), Regulation stipulating air pollutants emission measurements from stationary pollution sources (OG RS № 5/2016) and the Large Combustion Plants Directive (EU) 2001/80/EC.

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

During 2016, the reconstruction of electrostatic precipitator on the unit M1 in Morava TPP. Guarantee testing of dust emissions on the reconstructed electrostatic precipitator were performed – Test B in June 2017. Test B results confirmed an output concentration of dust below 50 mg/Nm^3. Test B results did not confirm the output concentration of dust below 50 mg/Nm^3, but they were accepted by recalculation according to corrective curves. The reason for the exceedance and for the use of corrective curves are the quality of coal and the operating mode, that is, the combustion conditions in the boiler.

- **Continuous air emissions measurements**

Between 2004 and late 2014 continuous air emissions measurement equipment was installed on TENT Branch units. In addition to the basic equipment consisting of analysers measuring dust and gases mass concentration, additional 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 (SO_2), nitrogen oxides (NO_x - NO_2), carbon monoxide (CO), carbon dioxide (CO_2), 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:

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

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

Table 45 shows the continuous air emissions measurement equipment data (mean annual mass concentration) for TENT Branch in 2017.

Table 45

NIKOLA TESLA TPPs BRANCH								
Continuous air emission measurements for 2017								
Mass concentrations of pollutants (mg/Nm³)								
Organisational part	**TENT A**						**TENT B**	
Unit	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**B1**	**B2**
Capacity MWth	**660**	**660**	**932**	**943**	**934**	**934**	**1.809**	**1.826**
SO_2	2.326	2.046	2.245	2.185	2.238	2.225	2.472	2.303
NO_x (NO_2)	402	331	300	332	249	406	381	384
CO	82	85	64	106	88	113	32	26
Dust	201	226	51	73	46	26	36	49
Organisational unit	**Kolubara A TPP**							**Morava TPP**
Unit,boiler	**A1**			**A2, A3**		**A5**		
Capacity MWth	**125,6**			**376,8**		**333,5**		**420,0**
SO_2	**-**			1.981		1.627		**-**
NO_x (NO_2)	**-**			317		476		**-**
CO	**-**			68		77		**-**
Dust	**-**			1.002		148		**-**

Table 46 shows the continuous air emissions measurement equipment data for 2017 in terms of compliance with legal requirements, * for TENT Branch organizational parts.

Table 46

NIKOLA TESLA TPPs BRANCH			
Organisational part	**Legal compliance in 2017 per units**		
	Dust	**SO_2**	**NO_x (NO_2)**
TENT A	Emission: - above ELV (RS and EU) units A1, A2, A3, A4 and A5 - within ELV (RS and EU) unit A6	Emission: -above ELV (RS and EU) all units	Emission: -within ELV (RS and EU) all units
TENT B	Emission: - above ELV (RS and EU) unit B2, - within ELV (RS and EU) unit B1	Emission: -above ELV (RS and EU) all units	Emission: - within ELV (RS and EU) units B1 and B2
KOLUBARA A TPP	Emission: - above ELV (RS and EU) unit A5 - below ELV (RS) and above ELV (EU) unit stacks A2 + A3	Emission: - above ELV (RS and EU) unit stacks A2 + A3 and unit A5	Emission: - below ELV (RS and EU) unit stacks A2 + A3 and unit A5 TEK
MORAVA TPP	Emission measurement system not operational		

Compliance assessment was caaried out by comparing measured air emission values with emission limit values, ELV, stipulated by the Regulation stipulating air pollutants emission limit values from combustion plants (OG RS № 6/2016), the Regulation stipulating air pollutants emission measurements from stationary pollution sources (OG RS № 5/2016) and the Large Combustion Plants Directive 2001/80/EC.

Compliance of continuous emission measurements with ELV is carried out according to the new Regulation - Article 43 the Regulation stipulating air pollutants emission measurements from stationary pollution sources (OG RS № 5/2016):

In case of continuous emission measurements from the existing combustion plants, compliance with emission limit values is realized if the measurement results for working hours in one calendar year show that:

1) None mean monthly exceeds emission limit values;
2) 97% of all 48-hour mean values does not exceed 110% ELV for sulfur dioxide and dust;
3) 95% of all 48-hour mean values does not exceed 110% ELV for nitrogen oxides.

According to CEMS, with regards to **dust per units in TENT A and B,** on all units except for units A6 and B1 there are exceedances of the mean monthly values above ELV;

Mean monthly values of CO were below ELV on all units.

Mean monthly value of nitrogen oxide NOx was exceeded on units A1 (September).

Exceedence of SO2 emission above ELV is constant on all units of TENT A and B.

According to CEMS, compliance per stacks of TENT A and B:

Stack A1-A2-A3:

- all mean monthly values of dust are above ELV.
- all mean monthly values of sulfur oxide are above ELV.
- all mean monthly values of nitrogen oxide are within ELV.
- all mean monthly values of carbon monoxide are within ELV.

Stack A4-A5-A6: five mean monthly values of dust are above ELV (January, March, May, November and December)

- all mean monthly values of sulfur oxide are above ELV.
- all mean monthly values of nitrogen oxide are within ELV.

- all mean monthly values of carbon monoxide are within ELV.

Stack B1-B2:

- mean monthly values of dust are above ELV in two months (November and December)
- all mean monthly values of sulfur oxide are above ELV.
- all mean monthly values of nitrogen oxide are within ELV.
- all mean monthly values of carbon monoxide are within ELV.

According to CEMS, compliance per stacks of Kolubara TPP (during pollution source operation):

Stack A2+A3:

- mean monthly values of dust are above ELV in six months,
- all mean monthly values of sulfur oxide are above ELV.
- all mean monthly values of nitrogen oxide are within ELV.
- mean monthly values of carbon monoxide are above ELV in one month

Stack A5:

- all mean monthly values of dust are above ELV.
- all mean monthly values of sulfur oxide are above ELV.
- all mean monthly values of nitrogen oxide are within ELV.
- all mean monthly values of carbon monoxide are within ELV.

Table 47 shows data on continuous air emission measurement equipment in the units of TENT branch organizational parts.

Table 47

<table>
<tr><td colspan="11">NIKOLA TESLA TPPs BRANCH</td></tr>
<tr><td colspan="11">Continuous air emissions measuring equipment in units in 2017</td></tr>
<tr><td colspan="4">Pollutants</td><td colspan="7">Parameters</td></tr>
<tr><td colspan="2" rowspan="2">Organisational units</td><td rowspan="2">Dust</td><td colspan="2">Gases</td><td colspan="3">Content</td><td rowspan="2">p</td><td rowspan="2">t</td><td rowspan="2">Flow</td></tr>
<tr><td>SO2, NOx(NO2), CO</td><td>HCl and HF</td><td>Humidity</td><td>CO2</td><td>O2</td></tr>
<tr><td rowspan="6">TENT A</td><td>A1</td><td rowspan="6">Measuring devices installed on each unit on flue ducts after the left and right ESP, behind ID fan

Total: 12 measuring devices</td><td rowspan="6">One measuring device installed per unit.
Sampling is carried out on flue ducts, continuously, behind the left and right ID fan. Flue gas is mixed and led to measuring devices for gases

Total: 6 sets of measuring devices</td><td rowspan="6">-</td><td rowspan="6">Humidity adopted

Installation of 6 more measuring devices planned.</td><td rowspan="6">Total: 6 measuring devices</td><td colspan="3" rowspan="6">Measuring devices installed on each unit, on flue ducts after the left and right ESP, ID fan

Total: 12 measuring devices</td></tr>
<tr><td>A2</td></tr>
<tr><td>A3</td></tr>
<tr><td>A4</td></tr>
<tr><td>A5</td></tr>
<tr><td>A6</td></tr>
<tr><td rowspan="2">TENT B></td><td rowspan="2">B1</td><td colspan="2">Measuring device installed on the flue duct, at the level 55.1m in the inner stack lining.</td><td>-</td><td colspan="5">Measuring device installed on the flue duct, at the level 55.1m in the inner stack lining.</td></tr>
<tr><td colspan="9">Platform located at the level 54m, inner stack lining
Total: 1 set of measuring devices</td></tr>
</table>

<table>
<tr><td rowspan="3"></td><td rowspan="2">B2</td><td colspan="4">Measuring devices for gases and dust installed
*Dust measured on flue ducts
• after left ESP, before ID fan
• after right ESP, before ID fan
Total:
3 measuring devices (dust)
1 set of measuring devices for gases</td><td>-</td><td>flue duct - 1 set of measuring devices for O_2, CO_2 t, p, flow rate and humidity</td></tr>
<tr><td colspan="2">flue ducts - t and p devices
• after left ESP, before ID fan
• after right ESP, before ID fan
2 sets of measuring devices</td></tr>
<tr><td colspan="6">Platform located at the level 55.1m, inner stack lining
Platform is located at the level of 54m, inner stack lining</td></tr>
<tr><td rowspan="6">KOLUBARA A TPP</td><td>A1-K1</td><td colspan="4">-</td><td>-</td><td>-</td></tr>
<tr><td>A2-K3</td><td colspan="6" rowspan="3">Measuring devices (except HC and HF devices) installed at the level of 46.25m, outer stack lining.
Platform is located at the level of 45m, outer stack lining.
Control measurements openings at the level of 46.75m. Stack height - 105m.</td></tr>
<tr><td>A3-K4</td></tr>
<tr><td>A3-K5</td></tr>
<tr><td rowspan="2">A5-K6</td><td rowspan="2">Installed:
• behind ESP after ID fan:
Left ESP
Right ESP
• stack</td><td>Installed on the stack</td><td>-</td><td>Installed on the stack</td><td>Installed:
• behind ESP after ID fan:
Left ESP
Right ESP
• stack</td><td>Installed on the stack</td></tr>
<tr><td colspan="5">Measuring devices installed at the level of 51m, outer stack lining. Platform is located at the level of 50m, outer stack lining. Measuring plane with measuring opening for control measurements located at the level of 51.5m. Stack height - 130m.</td></tr>
<tr><td colspan="2">MORAVA TPP</td><td colspan="6">Measuring devices installed at the level of 48.6 m and 49m/53m, outer stack lining.
Platform located at the level of 47m. Stack height - 105m. 1 set of measuring devices.</td></tr>
</table>

*Continuous measurement devices for dust delivered during ESP reconstruction were installed on the flue duct after ESP, before ID fan. Mass concentrations data for dust are recalculated for normal conditions and measured oxygen.

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: SO_2, NO_x (NO_2), 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 units A2 and A3 - Kolubara A TPP were installed on stack № 2 (105m high), at the level of 46.25m. 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 11.07.2017, approving continuous measurement of pollutant emissions from stationary pollution sources for units A2 and A3 Kolubara TPP.

Devices for the continuous air pollutants emissions measurements at the Morava TPP, mounted on the stack in 2009 were made operational in the course of 2015. However, they are not fully operational given that the analyser needs to be calibrated under QAL2. In 2017, the procurement procedure for services of adjustment of measuring point at the stack and procurement of new emissions measuring equipment were initiated.

At the end of 2014, a contract was signed between EPS and TEKON-tehnokonsalting to prepare a Study *Environmental Monitoring (air emissions) at the level of PE EPS and Subsidiaries*. The subject of this Study completed at the beginning of 2017 was the development and implementation of an air emissions monitoring system of thermal power plants operated by the subsidiaries of the Public Enterprise Electric Power Industry of Serbia. In addition, the objective is to form a central database with the results of continuous air pollutants emissions measurements, data processing and reporting about the continuous air pollutants emissions

measurements in accordance with statutory requirements, with a view to taking appropriate environmental measures.

- **Annual air emissions**

Table 48 provides an overview of air emissions: dust, SO_2, NO_2 and CO_2 for TENT Branch in 2017.

Annual dust, SO_2 and NO_2 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 air emission continuous measurement equipment on stack D1 (unit A1, boiler K1) in Kolubara TPP. For Stack 1 (unit A1, boiler K1) emissions are calculated by multiplying operating periods (h) in 2016 with output pollutant flow rate (Nm3/h) and mean measured mass concentration (mg/Nm3) obtained by periodic emission measurement in 2017.

Stack 2 (units A2, A3) and Stack 3 (unit A5) shows data on quantities of dust emitted which are taken from Annual reports of continuous emissions measurements for 2017.

Calculation for CO_2 was based on the fuel consumption, presented in Table 49 and CEF – correction emission factor.

Table 48

NIKOLA TESLA TPPs BRANCH				
Air emissions in 2017 (t/year)				
Organisational unit	**Dust**	**SO_2**	**NO_x (NO_2)**	**CO_2**
Nikola Tesla A TPP				
A1	-	-	-	-
A2	-	-	-	-
A3	-	-	-	-
A1-A2-A3	1.932	28.448	4.268	4.513.301
A4	-	-	-	-
A5	-	-	-	-
A6	-	-	-	-
A4-A5-A6	1.204	52.796	7.969	5.734.146
Total: TENT A	**3.136**	**81.244**	**12.237**	**10.247.447**
Nikola Tesla B TPP				
B1	-	-	-	-
B2	-	-	-	-
Total: TENT B	**1.518**	**83.493**	**13.557**	**8.708.667**
Kolubara A TPP				
A1	1.040	1.801	386	191.618
A2,A3	1.654	3.704	571	396.831
A5 - K6	57	779	208	500.158
Total: Kolubara A TPP	**2.751**	**6.284**	**1.165**	**1.088.607**
Morava TPP				
Total: Morava TPP	**78**	**12.261**	**1.848**	**483.197**
TOTAL: NIKOLA TESLA TPPs BRANCH	**7.483**	**183.282**	**28.807**	**20.527.918**

Table 49

NIKOLA TESLA TPPs BRANCH								
Fuel consumption in 2017								
Organisational unit	TEHT A		TENT B		KOLUBARA A TPP		MORAVA TPP	Total for Branch
Raw material	Unit	(t/year)	Unit		Boiler	(t/year)	(t/year)	(t/year)
COAL	A1	1.553.855	B1	5.845.174	K1	249.587	500.080	28.462.674
	A2	1.722.526	B2	6.268.335	K2	-		
	A3	3.058.779			K3	155.196		
	A4	2.774.612			K4	172.687		
	A5	2.538.541			K5	189.971		
	A6	2.739.975			K6	693.356		
	TOTAL	**14.388.288**		**12.113.509**		**1.460.797**	**500.080**	
HEAVY FUEL OIL	A1	1.497	B1	9.841	K1	-	1.668	31.257
	A2	1.570	B2	11.086	K2	-		
	A3	1.178			K3	-		
	A4	1.449			K4	-		
	A5	1.125			K5	-		
	A6	1.843			K6	-		
	TOTAL	**8.662**		**20.927**		-	**1.668**	
OIL	A1	-	B1	-	K1	335	304	1.637
	A2	-	B2	-	K2	-		
	A3	-			K3	188		
	A4	-			K4	128		
	A5	-			K5	139		
	A6	-			K6	543		
	TOTAL	-		-		**1.333**	**304**	

- **Harmonisation of air emissions with EU legislation**

Dust

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 ≤ 50mg/Nm^3, which is in line with EU and Serbian legislation.

Continuos measurements of air pollutants carried out in 2017 confirmed an outlet dust mass concentration deviation from the values guaranteed by the equipment supplier except on the units A6 (TENT A) and B1 (TENT B).

Electrostatic precipitator of the Morava TPP was reconstructed in order to achieve the output dust concentration of 50 mg/Nm^3, during the 2016 overhaul. Individual measurements of air pollutants 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/Nm^3 in line with the Serbian and EU legislation flue gas desulphurization plants should be introduced in the forthcoming period.

In 2011, the Japanese Government extended a loan to introduce the flue gas desulphurisation system at the Nikola Tesla TPPs. During 2012 a consultant was selected (Japanese company TEPSCO) and the preparation of the tender and pre-qualification documents for the supply, 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 Preliminary Design – A3- A6 Units FGD Plant (Nikola Tesla A TPP), 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 for the contractor in September 2017, a consortium led by Mitsubishi Hitachi Power Systems was selected. 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.

Nitrogen oxides

In the previous period, primary measures have been introduced on units A3 and A5 TENT A.

The plan is to introduce primary nitrogen oxide reduction measures in the coming period on units A4 and A6 TENT A, as well as on units B1 and B2 TENT B.

Preparation of Feasibility Study with the Basic Design for the nitrogen oxide (NOx) primary reduction measures on unit A6 TENT A and units B1 and B2 TENT B was initiated at the end of 2016.

3.2.3. Water Emission Measurements

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 (TENT A, Kolubara A and Morava). Additionally, a small share of the TENT B return cooling water is used for ash and slag transport.

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 and Morava. 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.

Wastewater created by washing the coal transportation bridges is after mechanical particle deposition in sedimentation tanks indirectly discharged into the river.

Sanitary wastewater is after mechanical-biological treatment under aerobic conditions (TENT A, TENT B and Morava TPP) discharged directly or indirectly into the river. 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.

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), UM1 plant will be connected to U1 plant and waste waters will be discharged through it into the old peripheral ash landfill channel;

- 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;

- UV lamp for disinfection of waste waters is installed within the project of waste water treatment plant on the existing device Biodisc for treatment of sanitary waste waters;

- plant for treatment of waste waters resulting from the flue gas desulphurization process (FGD) is not in operation at this time because the constrruction 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 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 physico-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. Also, the composition of waste water at the inlet and outlet of the plant for oily and lignite polluted waste waters is monitored.

Ash and slag landfills groundwater quality impact is monitored by testing water quality of 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. On the other hand, arsenic groundwater penetration rate is much slower given that it is adsorbed by the aluminosilicate surface (landfill ash and/or clay forming an integral part of the soil).

TENT B recorded the current state (so-called *initial state*) of groundwater quality prior to the ash landfill site. 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 made available upon the request of the competent inspector, 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 TENT needs in 2017 was executed by accredited laboratories - *Anahem Laboratory*, Belgrade (TENT B, Kostolac TPP and Morava TPP) and City Institute of Public Health Belgrade (TENT A).

Table 50 provides the analysis of wastewater, watercourse and recipient quality data for 2017 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 50

NIKOLA TESLA TPPs BRANCH				
Water quality in 2017				
Organisational unit	**TENT A**	**TENT B**	**Kolubara A TPP**	**Morava TPP**
Water type	**Wastewaters and recipients**			
Drainage wastewater from the landfill	▪ suspended solids: <2 - 20 mg/l, no LV exceedance ▪arsenic: 5 - 30µg/l, LV exceedance of 10µg/l in waste water of old and new drainage channel ▪ sulphates: 45-503mg/l Below LV-2.000mg/l	▪ suspended solids: 1,5-4 mg/l, ▪ arsenic: 30 - 65µg/l, ▪sulphates: 316-612mg/l NOT DISCHARGED	-	-
Overflow wastewater from the landfill	▪ suspended solids: 3 - 18 mg/l, no LV exceedance ▪arsenic: 29 - 112µg/l. below LV- 10µg/l ▪sulphates: 344 - 495mg/l. below LV-2000mg/l **Note**: analysed sample is a mixture of overflow and drainage waters with mostly overflow waters	▪ suspended solids: 3 -4 mg/l, below LV ▪arsenic: 87 - 710µg/l. Above LV- 10 µg/l. ▪sulphates: 269 – 524mg/l NOT DISCHARGED	suspended solids 4-9 mg/l no exceedance MPC (35 mg/l) arsenic: 0,08-0,18 mg/l above MPC (0,01 mg/l) sulphates: 312-593 mg/l below MPC (2000mg/l)	-
Recipient	No changes of the Sava River quality upstream - downstream of TENT A for: ▪ arsenic: not exceeding LV - 10µg/l ▪sulphates:18- 24mg/l. Below LV -100 mg/l	No changes of the Sava River water quality upstream-downstream of TENT B: ▪ arsenic: not exceeding LV -10µg/l	Turija River: -arsenic: upstream - above MPC (10 µg/l) was one sample 30 µg/l and downstream all samples are below MPC ▪sulphates: upstream – all samples below MPC	**Velika Morava River upstream wastewater discharge**: ▪ Oxygen saturation 75-97.8 % BOD_5 2,6-11 mgO2/l ▪COD 8-34 mgO2/l ▪ Ammonium ion, 0,93 mgN/l (III sampling)

	▪ mineral oil: not identified Sava River temperature differences (TENT A upstream and downstream) do not exceed 3°C (legal limit) and it amounts to 0,6°C	▪sulphates:20 - 46mg/l, below LV-100 mg/l ▪ mineral oil: not identified Sava River temperature differences (TENT B upstream and downstream) do not exceed 3°C (legal limit) and it amounts to 0,7°C	(100 mg/l), downstream three samples exceed MPC (from 34-167 mg/l.) Kolubara River: -arsenic: upstream and downstream all samples below MPC (10 µg/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 increase downstream and upstream within the legal limit (3°C).	▪ Mineral oils not present ▪Iron 600µg/l (IV sampling) ▪Organic carbon 4,2-13,6 mg/l ▪Total nitrogen 0,5-2,8 mg/l ▪ Increased number of fecal coliforms, total coliforms, intestinal enterococci and aerobic heterotofa (Kohl method) in 100 ml. **Velika Morava River during sand filters wastewater discharge:** ▪ Oxygen saturation 93,5 - 97,6% ▪BOD_5 3,2 - 17 mgO2/l ▪COD 9,3-47 mgO2/l ▪Organic carbon 7,6-35 mg/l ▪total nitrogen 0,05-2,1 mg/l ▪Ammonium ion 0,05-0,58 mgN/l ▪ Mineral oils not present ▪ Increased number of fecal coliforms, total coliforms, intestinal enterococci and aerobic heterotofa (Kohl method) in 100 ml ▪ Velika Morava River temperature increase downstream within the legal limit (3°C). **Velika Morava River during sand filters wastewater discharge:** ▪suspended solids 3-78 mg/l ▪pH вредност 7,4 - 9 ▪ Oxygen saturation 76 - 95% ▪ BOD_5 9,1 - 19 mgO2/l ▪COD 27-31 mgO2/l ▪Organic carbon 13-32 mg/l ▪Total nitrogen 1-4,5 mg/l ▪Ammonium ion 0,05-1,56 mgN/l ▪ Mineral oils not present ▪Iron 600µg/l (IV sampling)

Table 51 provides the groundwater quality data analysis in the ash and slag landfill site vicinity in 2017 in terms of their legal compliance. Analysis was provided for certain tested parameters of greater importance.

During 2017 groundwater quality monitoring was conducted in the vicinity of the following landfills: TENT A - 10 piezometers and 5 rural wells in the first two quarters and 12 piezometers and 3 rural wells in the other two quarters, TENT B - 9 piezometers and 9 rural wells in the first two quarters and 7 piezometers and 5 rural wells in the other two quarters, Kolubara A TPP - 5 piezometers and 4 rural wells and Morava TPP 1 piezometer and 5 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 (OG RS № 88/2010), while the rural wells water data are compared with the maximum permissible concentrations (MPCs) stipulated by the Rules defining potable water quality (OG FRY № 42/98 and 44/99).

Table 51

NIKOLA TESLA TPPs BRANCH						
Groundwater quality around ash and slag landfills in 2017						
	Permissible values		**Organisational unit**			
	*	**	**TENT A**	**TENT B**	**Kolubara A TPP**	**Morava TPP**
Sulphates (mg/l)	250		Highest in piezometers: P24/a, P7-3, P5 and P7/a (from 227mg/l - 489mg/)l. Below MPC in all samples of rural wells	Highest in piezometers: П48, П9/1, П80 и П2: 84mg/l-579mg/l Below MPC in all rural wells except in one sample of well 5 in Grabovac (588 - 734mg/l).	Above MPC in wells: ▪N2, 448 - 864 mg/l in all samples over MPC ▪N4, 479 - 768 mg/l in all samples over MPC	In controlled piezometer 152 mg/l. Above MPC in 2 wells, measured values 276-410mg/l
Arsenic (µg/l)	10	60	Below MPC in all piezometers. Above MPC in one sample from well 5 in Ratari (0,014 mg/l)	Below detection limit in all piezometers, except in one sample P9/1 where 7 µg/l was measured Below MPC in all rural wells	Below MPC in all samples in all wells In piezometers above MPC in one piezometer P I-2 in one sampling series	In controlled piezometer below MPC. Below MPC in all rural wells
Lead and cadmium (mg/l)	Pb 0,01	Pb 0,075 Cd 0,006	Lead over MPC -75µg/l in piezometer P18 and P19 (0,084 - 0,29 mg/l) and one sample P7/3 (0,81mg/l). Cadmium over MPC - 6µg/l in piezometer P18 and P19 (0,018 – 0,021mg/l) and in one sample P21(0,015 mg/l)	Both lead and cadmium below detection limit in all piezometers	In wells Pb is below MPC in all samples In piezometers Pb and Cd are below MPC in all samples	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 (1,2 – 23,6 mg/l)	Above MPC in some samples of piezometers P9/1, P70, P74, P59, P2 and P35 (0,9 – 2,5 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 some samples of rural wells in Urovci and Krtinska The highest measured value is in sample of well 1 in Urovci – 0,235 mg/l	Above MPC in some samples of well 8 in Skela, 9 in Ratari and in one sample of well 3 in Grabovac and 2 in Dren. Measured concentrations over MPC within range of 0,06 – 0,15 mg/l.	In wells: N1 - 0,06 mg/l and 0,14 mg/l, in two samples is above MPC N2 - 2,5-4,7 mg/l, in all samples is above MPC N3 - 0,67 mg/l and 1,1mg/ l in two samples is above MPC N4 – below MPC in all samples	In controlled piezometer manganese <50 µg/l in three samples, in IV 190 µg/l Above MPC in 1 well 0,76-1,5mg/l
Ammonia (mg/l)	0,03		Ammonia is below MPC in all samples of rural wells. Nitrites above MPC registered only in samples taken from wells 2, 3,4 and 5 in Urovci, Krtinska and Ratari – up to 0,216mg/l	Ammonia and nitrites below MPC in all rural wells	Ammonia is above MPC in the first two samples in all wells: N1- 2,8 mg/l N2- 2,3 mg/l, N3- 0,19 mg/l, N4- 0,14 mg/l Nitrites below MPC in N3 and N4 wells, above MPC registered in one sample each taken from wells: N1- 6,3 mg/l N2- 1,2 mg/l	In controlled piezometer ammonia <0,05 mg/l l in three samples, in IV 1,3mg/l Above MPC in 1 well 0,81mg/l Nitrites in all wells below MPC.
Nitrites (mg/l)	0,1					
Nitrites (mg/l)	50		Above MPC in some samples taken from wells 3 and 4 in Krtinska – up to 246 mg/l	Nitrites below MPC in all rural wells	Below MPC in all samples taken from wells	In controlled piezometer nitrites 1,1 mg/l. In wells below MPC.

* Potable water maximum permissible concentrations;
**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 52 provides the analysis of sanitary wastewater quality data at the treatment plant inlet and outlet for 2017. Under the Regulation stipulating pollutants limit values in waters and deadlines for their achievement (OG RS № 67/2011, 48/2012 and 1/2016), water discharged into the recipient complies with the regulations related to suspended solids and BPK5, where the percentage of decrease in the concentration of some parameters at the outlet of the device shows that Biodisc works with much greater efficiency. In terms of bacteriological safety, all samples at the Putox outlet are bacteriologically unsafe, while the samples at the Biodisk outlet are predominantly bacteriologically safe (all but one sample with a minor exceedance of the total number of coliform bacteria).

Table 52

NIKOLA TESLA TPPs BRANCH			
Sanitary wastewater treatment plant operation in 2017			
Pollutants concentration (mg/l)	**MPC (mg/l)**	***Biodisk* plant TENT A**	***Putoks* plant TENT B**
Suspended solids (mg/l)			
Plant inlet	-	10 - 124	7 – 31
Plant outlet	75	5 - 22	5 – 24
Biological oxygen demand (BOD_5)			
Plant inlet	-	4 – 184,5	24 – 78
Plant outlet	50	4,1 – 6,3	16 – 29

- **Water amounts**

Table 53 provides an overview of water amounts captured and discharged by TENT Branch organisational units for 2017. 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 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 Crljeni potable water treatment plant supplies Veliki Crljeni 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. Total water amounts for the Kolubara A TPP line in 2017 is 413.672 m^3. This quantity was estimated because the meter was defective in the period August - December 2017 and showed unrealistically low values. Estimation of monthly quantities of water spent for the period from August to December 2017 was carried out on the basis of previous experiences (average: 1,100 m3 per day).

Sanitary wastewater amounts for the Kolubara TPP line were estimated based on the above amount.

Табела 53

NIKOLA TESLA TPPs BRANCH						
Water amounts in 2017 (m^3/year x 10^3)						
Organisational unit	**Reservoir**		**Discharged wastewater**			
	Used amounts		**Used amounts**	**Wastewater discharged into Bare Channel**	**Overflow and drainage water – ash disposal site**	**Sanitary wastewater**
	Surface	**Surface**				
Nikola Tesla A TPP	1.035.483	975	1.006.136	-	28.021	21
Nikola Tesla B TPP	1.119.570	437,3	1.104.384	-	-	53
Kolubara A TPP	6.103	-	-	800	256	414
Morava TPP	63.119	86	61.484	-	-	9,7
TOTAL: NIKOLA TESLA TPP BRANCH	**2.224.275**	**1.498,3**	**2.172.004**	**800**	**28.277**	**497,7**

* За потребе припреме технолошке воде

- **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 2016 is to reduce emissions to water in accordance with the Water Act (OG RS № 30/10) and the

Regulation stipulating pollutants limit values in waters and deadlines for their achievement (OG RS № 67/2011, 48/2012 and 1/2016).

TENT A

Wastewater treatment plant was constructed in 2016 and it includes treatment plant for coal contaminated (G1), oily (U1) and fgd wastewaters (that is not operating since FGD plant is not built yet). The efficiency of the treatment plant was monitored in the third and fourth quarter of 2017. The plant for pre-treatment of heavy oil wastewaters (UM1) which are then directed to the oily wastewaters treatment plant for a longer period due to various problems in functioning, did not operate. In both quarterly sampling (input and output) at the U1 plant, the efficiency of the plant was satisfactory and ELVs were within the limits at the outlet of the plant. At the G1 plant, despite high efficiency in reducing the values of the parameters at the outlet of the plant, in the second quarter sampling, the GVE for suspended solids, BOD 5 and COD were not within the limits.

TENT B

Detailed Design for the TENT B Wastewater Treatment Plant Construction has been developed and a Contractor has been selected but the construction of the plant has not started yet due to the impossibility of the Contractor to do the job

Morava TPP

Morava TPP does not have a wastewater treatment plant. Pre-Feasibility Study with Conceptual Design for wastewater treatment plant was prepared. The Jaroslav Černi Institute for the Development of Water Resources, 2015.

3.2.4. Soil Emission Measurements

During 2017 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 TENT 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 Agency in line with the legal obligations.

Sampling and testing was performed by the *Zastita na radu i zastita zivotne sredine Beograd d.o.o.* once during 2017 on TENT A and B Branch locations off vegetative stage, and *Institute Mol* at TENT A and B Branch locations, Kolubara TPP and Morava TPP twice during 2017. 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 landfill distance.

A total of four sampling zones has been determined (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 MPC for: chromium (Cr), олово (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 (OG RS № 88/2010) and the Regulation stipulating permissible hazardous and harmful substances content in soil and irrigation water and their testing methods (OG RS № 23/94).

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 400ha. The entire area is divided into 3 cassettes. Disposal of ash and slag takes place in cassette III while cassette II has been idled since December 2016.

The total area of TENT B landfill is 600ha, out of which the disposal of ash and slag has so far been carried out on 400ha. Ash handling technology has changed from thin to thick slurry (on 4 October 2009, Unit B2 was connected to the new system, while Unit B1 was connected 30 May 2010). Cassette II is currently the active, while cassette I is passive.

On TENT A and TENT B locations, ash and 25 soil samples were analysed.

Kolubara 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 re-cultivated by foresting in 2009.

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

TE Морава

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 54 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.

Table 54

NIKOLA TESLA TPPs BRANCH							
Content (mg/kg)	MPC	LV	RV	Content of pollutants in soil around ash landfill in 2017			
	mg/kg			TENT A	TENT B	Kolubara TPP	Morava TPP
Chromium (Cr)	0	100	380	**Ash:** 115.3, 39.94, 31.28 (first, second and third sampling); **Soil**: Out of 24 samples, 6 exceeds MPC and LV in the first sampling, whereas none exceeds RV. In the second sampling no exceeding values for MPC, LV and RV. In the third sampling no exceeding values for MPC, LV and RV. **Soil, control zone :** Out of 5 samples, none exceeds LV, RV and MPC.	**Ash**: 91.8, 24.67, 19.25 (first, second and third sampling); **Soil:** Out of 23 samples none exceeds LV, RV and MPC. **Soil, control zone**: Out of 4 samples none exceeds LV, RV and MPC. **Zone across Sava:** Out of 2 samples in the first sampling number above MPC and LV-2, RV-none. The second and third sampling none exceeds LV, RV and MPC.	**Ash :** 29.10, 22.58 (first and second sampling); **Soil:** Out of 15 samples in the first sampling none exceeds MPC, LV and RV. In the second sampling out of 15 samples none exceeds MPC, LV and RV. **Soil, control zone :** Control sample not exceeding MPC, LV and RV in any sampling.	**Ash:** 34.63, 29.56 (first and second sampling); **Soil:** The first sampling: out of 14 samples none exceeds LV, RV and MPC. The second sampling: out of 14 samples none exceeds LV, RV and MPC. **Soil, control zone :** Out of 2 control samples none exceeds LV, RV and MPC in any sampling.
Nickel (Ni)	50	35	*210*	**Ash***: 115.6,* 49.51, 41.84 (first, second and third sampling); **Soil:** Out of 24 samples number above MPC- 23, LV- 24 in the first sampling. Number of samples above MPC- 16, LV- 24 in the second sampling. Number of samples above MPC- 17, LV- 24 in the third sampling. None of the samples exceeds RV in any sampling. **Soil, control zone**: In the first and second sampling with 5 samples each number of samples	**Ash** : 82.5, 31, 27.95 (first, second and third sampling); **Soil:** The first sampling: out of 23 samples number above MPC- 16, LV- 20. No values above RV. In the second and third sampling number of samples above LV-4, MPC-none, RV-none. **Soil, control zone**: Out of 4 samples in the first sampling number above LV-2. Increased values for MPC and RV-none. In the second sampling one sample is above LV whereas there are no values above MPC and RV. In the third sampling one sample is above LV whereas there are no	**Ash :** 39.56, 35.26 (first and second sampling); **Soil:** The first sampling: out of 15 samples number above LV-4, MPC-none, RV-none. In the second sampling out of 15 samples number exceeding LV-4. MPC-none, RV-none. **Soil, control zone:** Control sample not exceeding MPC, LV and RV in any sampling.	**Ash** : 43.59, 45.95 (first and second sampling); **Soil:** The first sampling: out of 14 samples number exceeding MPC and LV- 12, RV-none. In the second sampling out of 14 samples number exceeding MPC and LV- 12, RV-none . **Soil, control zone:** Out of 2 control samples none exceeds LV, RV and MPC in any sampling.

				above MPC-4, LV-5, RV-none. In the third sampling number of samples above MPC- 5, LV-5, RV-none.	values above MPC and RV. **Zone across Sava:** Out of 2 samples in the first measurement number of samples above MPC and LV is 2, RV-none. In the second and third sampling number of samples above MPC and LV is also 2, RV- none.		
Lead (Pb)	**100**	**85**	**530**	**Ash**: 19.5, 10.17, 9.05 (first, second and third sampling); **Soil:** In all three samplings with 24 samples each number above MPC- none, LV-none, RV-none. **Soil, control zone**: In all three samplings with 5 samples each number above MPC- none, LV-none, RV-none.	**Ash**: 8.7, 5.3, 5.32 (first, second and third sampling); **Soil:** In all three samplings with 23 samples each number above MPC-none, LV-none, RV-none. **Soil, control zone**: In three samples with 4 samples each number above MPC- none, LV-none, RV-none. **Zone across Sava:** In three samplings with 2 samples each number above MPC- none, LV-none, RV-none.	**Ash**: 10.62, 10.05 (first and second sampling); **Soil:** First sampling: out of 15 samples none exceeds LV, RV and MPC. In the second sampling out of 15 samples none exceeds LV, RV and MPC. **Soil, control zone**: Control sample not exceeding MPC, LV and RV in any sampling.	**Ash**: 28.49, 33.28, (first and second sampling); **Soil:** First sampling: out of 14 samples number exceeding LV-2. There are no increased values for MPC and RV. In the second sampling out of 14 samples number exceeding LV-1. There are no increased values for MPC and RV. **Soil, control zone**: Out of 2 control samples in each sampling none exceeds LV, RV and MPC in any sampling.
Copper (Cu)	**100**	**36**	**190**	**Ash**: 53,15.25, 22.03 (first, second and third sampling); **Soil:** First sampling: out of 24 samples number of samples above LV-7. Values above MPC-none, RV-none. In the second and third sampling with 24 samples each, none is above MPC, LV and RV. **Soil, control zone**: First sampling: number of samples above LV-2,	**Ash**:36.3, 10.02, 13.14 (first, second and third sampling); **Soil:** In all three samplings with 23 samples each, there are no exceeding values for MPC, LV and RV. **Soil, control zone**: In all three samplings with 4 samples each, there are no exceeding values for MPC, LV and RV in any sampling. **Zone across Sava:** Out of 2 samples in the first sampling number of samples above LV-1. No	**Ash**: 69.09, 53.41 (first and second sampling); **Soil:** First sampling: out of 15 samples none exceeds LV, RV and MPC. Second sampling: out of 15 samples none exceeds LV, RV and MPC. **Soil, control zone**: Control sample not exceeding MPC, LV and RV in any sampling.	**Ash**: 43.11, 39.83 (first and second sampling); **Soil:** First sampling: out of 14 samples number of samples above LV-4. Increased values for MPC-none and RV-none. Second sampling: out of 14 samples number of samples above LV-2. Increased values for MPC-none and RV-none. **Soil, control zone**: Out of 2 control samples in each sampling none of the

				whereas none exceeding values for MPC and RV. In the second and third sampling none is above MPC, LV and RV.	exceeding values for MPC and RV. In the second sampling number of samples above LV-2. No exceeding values for MPC and RV. In the third sampling none of the samples is above MPC, LV and RV.		samples exceeds MPC, LV and RV in any sampling.
Zinc (Zn)	**300**	**140**	**720**	**Ash**: 55.3, 24.12, 31.53 (first, second and third sampling); **Soil:** First sampling: out of 24 samples number of samples above LV-1. Increased values for MPC-none, RV-none. In the second and third sampling none is above MPC, LV and RV. **Soil, control zone**: In all three samplings with 5 samples each, none is above MPC, LV and RV in any sampling.	**Ash**: 77.9, 22.31, 35.35 (first, second and third sampling); **Soil:** In all three samplings with 23 samples each, none is above MPC, LV and RV. **Soil, control zone**: In all three samplings with 4 samples each, none is above MPC, LV and RV **Zone across Sava:** First sampling: out of 2 samples number above LV- 1. Increased values for MPC-none, RV-none. In the second and third sampling none of the samples is above MPC, LV and RV.	**Ash**: 50.52, 48.16 (first and second sampling); **Soil:** First sampling: out of 15 samples none exceeds LV, RV and MPC. Second sampling: out of 15 samples none exceeds LV, RV and MPC. **Soil, control zone**: Control sample not exceeding MPC, LV and RV in any sampling.	**Ash**:39.96, 38.41 (first and second sampling); **Soil:** First sampling: out of 14 samples none exceeds LV, RV and MPC. Second sampling: out of 14 samples none exceeds LV, RV and MPC. **Soil, control zone**: Out of 2 control samples in each sampling none of the samples exceeds MPC, LV and RV in any sampling.
Cadmium (Cd)	**3**	**0.8**	**12**	**Ash:** <0,4, 0.06, 0.05 (first, second and third sampling); **Soil**: First sampling: out of 24 samples number of samples above LV-6. Increased values for MPC-none, RV-none. In the second and third sampling none is above MPC, LV and RV. **Soil, control zone**: In all three samplings with 5 samples each, none	**Ash:**: <0,4, 0.3, 0.26 (first, second and third sampling); **Soil**: First sampling: out of 23 samples number of samples above LV-8. Increased values for MPC-none, RV-none. In the second and third sampling none is above MPC, LV and RV. **Soil, control zone**: First sampling: out of 4 samples number above LV- 2. Increased values for MPC-none, RV-none. In the second and third	**Ash::** 0.02, 0.02 (first and second sampling); **Soil**: First sampling: out of 15 samples none exceeds LV, RV and MPC. Second sampling: out of 15 samples none exceeds LV, RV and MPC. **Soil, control zone**: Control sample not exceeding MPC, LV and RV in any sampling.	**Ash::** 0.06, 0.05 (first and second sampling); **Soil**: First sampling: out of 14 samples none exceeds LV, RV and MPC. Second sampling: out of 14 samples none exceeds LV, RV and MPC. **Soil, control zone**: Out of 2 control samples in each sampling none of the samples exceeds MPC, LV and RV in any sampling.

				is above MPC, LV and RV in any sampling.	sampling none of the samples is above MPC, LV and RV. **Zone across Sava**: First sampling: out of 2 samples number above LV- 2. Increased values for MPC-none, RV-none. In the second and third sampling none of the samples is above MPC, LV and RV.		
Mercury (Hg)	**2**	**0.3**	**10**	**Ash**: <0.1, <0.13, <0.13 (first, second and third sampling); **Soil**: In all three samplings with 24 samples each, none is above MPC, LV and RV **Soil, control zone**: In all three samplings with 5 samples each, none is above MPC, LV and RV in any sampling.	**Ash**: <0,1, <0.13, <0.13 (first, second and third sampling); **Soil**: In all three samplings with 23 samples each, none is above MPC, LV and RV **Soil, control zone**: In all three samplings with 4 samples each, none is above MPC, LV and RV **Zone across Sava**: In all three samplings with 2 samples each, none is above MPC, LV and RV	**Ash**: <0.13, <0.13 (first and second sampling); **Soil**: First sampling: out of 15 samples none exceeds LV, RV and MPC. Second sampling: out of 15 samples none exceeds LV, RV and MPC. **Soil, control zone**: Control sample not exceeding MPC, LV and RV in any sampling.	**Ash**: <0.13, <0.13 (first and second sampling); **Soil**: First sampling: out of 14 samples none exceeds LV, RV and MPC. Second sampling: out of 14 samples none exceeds LV, RV and MPC. **Soil, control zone**: Out of 2 control samples in each sampling none of the samples exceeds MPC, LV and RV in any sampling.
Arsenic (As)	**25**	**29**	**55**	**Ash**:15.2, 7.74, 13.95 (first, second and third sampling); **Soil:** In all three samplings with 24 samples each, none is above MPC, LV and RV **Soil, control zone**: In all three samplings with 5 samples each, none is above MPC, LV and RV in any sampling.	**Ash**:19.2, 10.57, 7.99 (first, second and third sampling); **Soil:** In all three samplings with 23 samples each, none is above MPC, LV and RV **Soil, control zone**: In all three samplings with 4 samples each, none is above MPC, LV and RV. **Zone across Sava**: In all three samplings with 2 samples each, none is above MPC, LV and RV.	**Ash**:4.84, 7.93 (first and second sampling); **Soil:** First sampling: out of 15 samples none exceeds LV, RV and MPC. Second sampling: out of 15 samples none exceeds LV, RV and MPC. **Soil, control zone**: Control sample not exceeding MPC, LV and RV in any sampling.	**Ash**: 27.17, 23.18 (first and second sampling); **Soil:** First sampling: out of 14 samples none exceeds LV, RV and MPC. Second sampling: out of 14 samples none exceeds LV, RV and MPC. **Soil, control zone**: Out of 2 control samples in each sampling none of the samples exceeds MPC, LV and RV in any sampling.
Boron (B)	**50**			**Пепео:** <0,36, 42.8, 43.82 (first, second and third sampling);	**Пепео**: 1.29, 42.53, 35.3 (first, second and third sampling);	**Пепео:** 52.18, 49.29 (first and second sampling);	**Пепео:** 35.33, 34.90 (first and second sampling);

				Soil: In all three samplings with 24 samples each, none is above MPC, LV and RV **Soil, control zone**: In all three samplings with 5 samples each, none is above MPC, LV and RV in any sampling.	**Soil:** In all three samplings with 23 samples each, none is above MPC, LV and RV **Soil, control zone**: In all three samplings with 4 samples each, none is above MPC, LV and RV **Zone across Sava**: In all three samplings with 2 samples each, none is above MPC, LV and RV	**Soil:** First sampling: out of 15 samples number exceeding MPC- 6. Second sampling: out of 15 samples number exceeding MPC-3. **Soil, control zone**: Control sample not exceeds MPC in both samplings	**Soil:** First sampling: out of 14 samples none exceeds LV, RV and MPC. Second sampling: out of 14 samples none exceeds LV, RV and MPC. **Soil, control zone**: Out of 2 control samples in each sampling none of the samples exceeds MPC, LV and RV in any sampling.

3.2.5. Environmental Noise Measurements

During 2017 living environment noise levels in the TENT Branch area were measured by the Transportation Institute CIP (TENT A, TENT B and TEK) and Occupational Safety Institute, jsc Novi Sad (TEM).

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 (table 49 for TENT A measuring points 2, 3 and 4). The measuring point no.1 in both plants was at the border of the property, along the inner side of the fence (as all four measuring points on TEK and TEM). Measurements were conducted during the day, evening and night mode. Table 49 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` minutes.

Table 55 shows the measured noise levels in 2017 for the Nikola Tesla TPPs Branch.

Local governments of Lazarevac (Belgrade City), Obrenovac and Svilajnac have not carried out acoustic zoning in accordance with the Environmental Noise Protection Act (OG RS № 36/09 and 88/10). Due to the lack of clearly limited acoustic zones it was not possible to accurately determine the measuring points' positions, as well as the limit values for these measuring points. Therefore, TENT's legal compliance cannot be assessed.

Since the monitored locations were not acoustically zoned, Transportation Institute CIP indicated in its Report that for the given measuring points no noise indicators limit values were provided. Acoustic zone for the considered location was identified in line with Regulation stipulating acoustic zones identification methodology (OG RS № 72/2010): Zone 6 – Industrial, storage, service areas and transport terminals without residential buildings bordering 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).

Exceedances of these limit values were registered at TENT A during one fifteen- minute measurement at each measuring point 1,2 and 3 in the night measurement period and at TENT B at measuring points 2 and 3 in all measurement periods. Results obtained by measurements were compared with the prescribed noise levels for thermal power plants during day, evening and night.

Table 55

NIKOLA TESLA TPPs BRANCH					
Noise Levels in 2017 (dB)(A)					
Noise indicators limit values, Regulation stipulating noise indicators, limit values, methods assessing noise indicators, disturbance levels and harmful living environment noise effects (OG RS № 75/2010)	***Closed areas**			Day and evening	Night
				35	30
	Open areas	Areas for recreation, hospital zones and rehabilitation centres, cultural and historical sites, large parks		50	40
		Tourist areas, camps and school zones		50	45
		Purely residential areas		55	45
		Purely 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.	

Measuring points		**TENT A**	**TENT B**	**Kolubara A TPP**	**Morava TPP**
Day	**1**	53,1	45,4	53,95	56,45
	2	58,5	68,0	47,35	54,95
	3	55,4	68,3	43,85	59,00
	4	53,1	49,8	51,5	57,15
Evening	**1**	56,5	48,6	53,4	55,70
	2	58,6	65,1	46,3	55,40
	3	55,9	66,6	46,0	59,80
	4	50,2	56,8	54,3	55,70
Night	**1**	58,5	46,7	54,45	**56,20**
	2	55,7	63,1	46,9	52,95
	3	58,5	62,6	43,45	**59,95**
	4	54,5	46,7	52,85	**57,10**

Development 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 2017 is shown in Table 56, while waste quantities given to the authorized operators in 2017 are shown in Table.57.

Table 56

NIKOLA TESLA TPPs BRANCH									
Generated waste in 2017									
No.	**RULEBOOK ON WASTE CATEGORIES, TESTING AND CLASSIFICATION** *"Official Gazette of RS", no. 56/2010 dated 10.8.2010.*		**Unit (t)**	**Organizational part**				**Total**	**Note**
				TPP Nikola Tesla A	**TPP Nikola Tesla B**	**Kolubara A TPP**	**Morava TPP**		
	Name	**Index number**		**Quantities**					
1.	Used printer cartridges other than those indicated under 08 03 17	08 03 18	t	0,200	0,014	0,800	0,040	**1,054**	Waste cartridges
2.	Coal fly ash Ash, slag and dust from boiler (except the dust from boiler stated in 10 01 04)	10 01 02/ 10 01 01	t	2.737.228,200	2.282.894,970	319.662,480	134.118,000	**5.473.903,650**	Coal ash and slag
3.	Spent waxes and greases	12 01 12*	t	0,800	0,000	0,000	0,000	**0,800**	Waste greases
4.	Other hydraulic oils	13 01 13*	t	11,445	6,955	5,420	5,540	**29,360**	Waste mixed used oils
5.				2,520	3,740	0,000	0,000	**6,260**	Waste hydraulic oils
6.				3,720	6,225	0,000	0,000	**9,945**	Waste turbine oils
7.	Other motor oils, gear oil and lubricating oil	13 02 08*	t	1,475	18,985	0,000	0,000	**20,460**	Waste lubricating and control oil
8.				0,000	1,120	0,000	0,000	**1,120**	Waste motor oil, gear oil and lubricating oil
9.	Liquid fuels waste	13 07 01*	t	0,000	1,340	0,000	0,000	**1,340**	Waste motor fuel
10.	Other fules- including mixtures	13 07 03*	t	0,000	17,800	0,000	0,000	**17,800**	Waste sludge and fuel from reservoir
11.				0,000	1,400	0,000	0,000	**1,400**	Waste heavy oil
12.	Other emulsions	13 08 02*	t	0,000	0,400	0,000	0,000	**0,400**	Waste water and oil emulsion
13.	Waste not otherwise specified	13 08 99*	t	0,000	0,000	0,690	0,000	**0,690**	Waste fuel oil
14.	Other solvents and solvent mixtures	14 06 03*	t	0,000	0,208	0,000	0,000	**0,208**	Waste solvents and solvent mixtures
15.		15 01 10*	t	0,005	0,035	0,000	0,000	**0,040**	Waste contaminated glass packaging

16.	Packaging with residue of hazardous substances or contaminated with hazardous substances		t	4,866	0,994	0,223	0,000	**6,083**	Waste chemicals contaminated PVC packaging
17.			t	1,120	1,055	0,280	0,000	**2,455**	Waste oil and lubricants metal packaging
18.	Metal packaging containing dangerous solid porous matrix (e.g., asbestos), including empty bottles under pressure	15 01 11*	t	0,000	1,680	0,000	0,000	**1,680**	Waste gas bottles
19.	Absorbent, filter materials, wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	3,220	1,520	0,160	0,140	**5,040**	Waste wiping cloth with oil and fuel oil
20.			t	0,100	0,200	0,000	0,000	**0,300**	Waste oily filters
21.			t	0,405	3,580	0,900	0,000	**4,885**	Waste dessicant with oil and fuel oil
22.	Waste tires	16 01 03	t	1,680	0,085	0,000	0,010	**1,775**	Waste pneumatic tires
23.			t	1,600	10,000	6,500	7,000	**25,100**	Waste rubber conveyor belt
24.	Discarded equipment containing hazardous components other than those indicated under 16 02 09 and 16 02 12	16 02 13*	t	0,000	0,000	0,000	18,000	**18,000**	Waste oil transformers and transformer oil
25.			t	38,540	12,780	0,960	10,260	**62,540**	Electrical and electronic devices waste
26.			t	0,000	0,000	0,880	0,000	**0,880**	Waste rectifiers with mercury
27.	Lead batteries	16 06 01*	t	7,350	0,300	0,540	0,450	**8,640**	Waste and residue of lead batteries
28.	Nickel-cadmium batteries	16 06 02*	t	0,140	0,000	0,000	0,000	**0,140**	Ni - Cd batteries
29.	Wood	17 02 01	t	52,180	0,000	21,000	0,000	**73,180**	Waste wood
30.	Glass	17 02 02	t	0,120	0,000	0,000	0,000	**0,120**	Waste glass
31.	Plastic	17 02 03	t	0,000	0,000	33,500	0,000	**33,500**	Waste mixed plastic
32.	Copper, bronze, brass	17 04 01	t	1,160	0,400	0,000	4,400	**5,960**	Copper and brass waste and residue
33.			t	2,460	4,150	0,230	0,000	**6,840**	Waste copper cables
34.	Aluminum	17 04 02	t	0,040	0,000	0,000	0,000	**0,040**	Waste aluminum cables
35.			t	1,320	18,460	1,200	0,000	**20,980**	Aluminum sheet
36.	Iron and steel	17 04 05	t	134,000	797,434	102,320	28,000	**1.061,754**	Scrap iron over 5mm
37.			t	17,800	92,740	91,000	33,300	**234,840**	Scrap iron up to 5mm
38.			t	0,050	5,700	0,000	0,000	**5,750**	Scrap steel sheet

39.			t	0,500	29,600	2,000	0,000	**32,100**	Scrap galvanized and black sheet
40.			t	13,040	0,000	0,000	0,000	**13,040**	Waste collecting electrodes
41.			t	0,000	14,000	33,440	0,000	**47,440**	Waste Fe cells
42.			t	0,000	145,290	0,000	30,000	**175,290**	Waste impact plates
43.			t	6,000	49,300	0,000	0,000	**55,300**	Waste steamline tubes
44.			t	14,860	634,700	45,000	100,000	**794,560**	Waste boiler tubes
45.			t	172,780	41,250	0,000	0,000	**214,030**	Iron and steel waste and residue
46.			t	44,280	0,000	0,000	0,000	**44,280**	Waste railway tracks
47.			t	2,380	0,000	0,000	0,000	**2,380**	Waste rail accessories
48.			t	0,000	0,000	0,000	5,000	**5,000**	Scrap steel sheet with traces of concrete
49.			t	0,000	0,000	0,000	1,000	**1,000**	Scrap steel sheet with traces of rubber
50.	Mixed metals	17 04 07	t	16,420	10,800	42,040	7,100	**76,360**	Waste mixed metals
51.			t	0,000	0,000	7,000	0,000	**7,000**	Scrap metal shaving
52.	Asbestos-containing insulation materials	17 06 01*	t	0,000	0,290	0,000	69,090	**69,380**	Waste asbestos
53.	Insulating materials other than those indicated under 170601 and 170603	17 06 04	t	0,000	9,300	3,800	0,000	**13,100**	Insulating braids
54.			t	95,880	69,280	38,980	55,270	**259,410**	Waste mineral rock wool
55.	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	34.700,000	0,000	0,000	0,000	**34.700,000**	Mixed construction waste
56.	Saturated or spent ion-exchange resins	19 09 05	t	8,310	21,460	0,000	0,000	**29,770**	Waste regenerated ion mass
57.	Minerals (e.g. sand and rock)	19 12 09	t	0,000	0,000	115,780	0,000	**115,780**	Waste white sand
58.	Fluorescent tubes and other mercury-containing waste	20 01 21*	t	0,430	0,340	0,120	0,130	**1,020**	Waste fluorescent tubes
59.			t	0,027	0,060	0,030	0,000	**0,117**	Waste mercury lamps and thermometers
60.	Edible oils and fats	20 01 25	t	0,000	0,007	0,000	0,000	**0,007**	Commercial- waste edible oil

Table 57

NIKOLA TESLA TPPs BRANCH									
Waste given to operators in 2017									
No.	**RULEBOOK ON WASTE CATEGORIES, TESTING AND CLASSIFICATION *"Official Gazette of RS", no. 56/2010 dated 10.8.2010.***		**Unit (t)**	**Organizational part**				**Total**	**Note**
				TPP Nikola Tesla A	**TPP Nikola Tesla B**	**Kolubara A TPP**	**Morava TPP**		
	Name	**Index number**		**Quantities**					
1.	Coal fly ash Ash, slag and dust from boiler (except the dust from boiler stated in 10 01 04)	10 01 02/ 10 01 01	t	0,000	96.647,620	31.562,800	28.616,800	**156.827,220**	Coal ash and slag
2.	Spent waxes and greases	12 01 12*	t	1,870	0,000	0,000	0,000	**1,870**	Waste greases
3.	Other hydraulic oils	13 01 13*	t	11,445	7,255	5,420	5,540	**29,660**	Waste mixed used oils
4.				2,520	3,740	0,000	0,000	**6,260**	Waste hydraulic oils
5.				3,720	6,225	0,000	0,000	**9,945**	Waste turbine oils
6.	Other motor oils, gear oil and lubricating oil	13 02 08*	t	1,475	18,960	0,000	0,000	**20,435**	Waste lubricating and control oil
7.				0,000	1,120	0,000	0,000	**1,120**	Waste motor oil, gear oil and lubricating oil
8.	Liquid fuels waste	13 07 01*	t	0,000	1,340	0,000	0,000	**1,340**	Waste motor fuel
9.	Other fules- including mixtures	13 07 03*	t	0,000	17,800	0,000	0,000	**17,800**	Waste sludge and fuel from reservoir
10.	Waste not otherwise specified	13 08 99*	t	0,000	0,000	0,690	0,000	**0,690**	Waste fuel oil
11.	Other solvents and solvent mixtures	14 06 03*	t	0,000	0,200	0,000	0,000	**0,200**	Waste solvents and solvent mixtures
12.	Packaging with residue of hazardous substances or contaminated with hazardous substances	15 01 10*	t	0,005	0,000	0,000	0,000	**0,005**	Waste contaminated glass packaging
13.			t	4,466	0,496	0,340	0,280	**5,582**	Waste chemicals contaminated PVC packaging
14.			t	1,120	0,960	1,080	2,300	**5,460**	Waste oil and lubricants metal packaging

15.	Metal packaging containing dangerous solid porous matrix (e.g., asbestos), including empty bottles under pressure	15 01 11*	t	0,000	3,680	0,000	0,000	**3,680**	Waste gas bottles
16.	Absorbent, filter materials, wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	4,590	1,420	0,160	0,000	**6,170**	Waste wiping cloth with oil and fuel oil
17.			t	2,055	3,580	0,900	0,000	**6,535**	Waste dessicant with oil and fuel oil
18.	Discarded equipment containing hazardous components other than those indicated under 16 02 09 and 16 02 12	16 02 13*	t	0,000	0,000	0,000	25,780	**25,780**	Waste oil transformers and transformer oil
19.			t	38,540	17,440	0,960	3,440	**60,380**	Electrical and electronic devices waste
20.			t	0,000	0,000	0,880	0,000	**0,880**	Waste rectifiers with mercury
21.	Non-organic waste containing hazardous substances	16 03 03*	t	0,000	1,100	0,000	0,000	**1,100**	Non-organic waste containing hazardous substance-liquid(H8/H14)
22.	Organic waste containing hazardous substances	16 03 05*	t	0,000	7,900	0,000	0,000	**7,900**	Organic waste containing hazardous substance - liquid(H4/H14)
23.	Laboratory chemicals consisting of or containing hazardous substances, including laboratory chemicals mixtures	16 05 06*	t	0,000	2,960	0,000	0,000	**2,960**	Waste chemicals
24.	Lead batteries	16 06 01*	t	7,980	0,620	0,540	0,660	**9,800**	Waste and residue of lead batteries
25.	Copper, bronze, brass	17 04 01	t	0,000	2,960	0,000	0,000	**2,960**	Waste copper cables
26.	Aluminum	17 04 02	t	0,000	17,460		0,000	**17,460**	Aluminum sheet
27.	Iron and steel	17 04 05	t	39,100	682,580	17,320	163,000	**902,000**	Scrap iron over 5mm
28.			t	0,000	160,020	41,000	142,000	**343,020**	Scrap iron up to 5mm
29.			t	0,000	18,300	0,000	0,000	**18,300**	Scrap steel sheet
30.			t	0,000	49,920	0,000	0,000	**49,920**	Scrap galvanized and black sheet
31.			t	13,040	0,000	0,000	0,000	**13,040**	Waste collecting electrodes
32.			t	0,000	13,980	0,000	0,000	**13,980**	Waste Fe cells
33.			t	0,000	131,560	8,440	0,000	**140,000**	Waste impact plates
34.			t	34,980	49,660	0,000	0,000	**84,640**	Waste steamline tubes

35.			t	12,940	707,540	0,000	0,000	**720,480**	Waste boiler tubes
36.			t	78,480	0,000	0,000	0,000	**78,480**	Iron and steel waste and residue
37.			t	53,640	0,000	0,000	0,000	**53,640**	Waste railway tracks
38.			t	5,160	0,000	0,000	0,000	**5,160**	Waste rail accessories
39.	Mixed metals	17 04 07	t	0,000	140,020	34,040	10,180	**184,240**	Waste mixed metals
40.	Asbestos-containing insulation materials	17 06 01*	t	0,000	0,800	0,000	69,530	**70,330**	Waste asbestos
41.	Insulating materials other than those indicated under 17 06 01 and 17 06 03	17 06 04	t	0,000	10,300	7,800	0,000	**18,100**	Insulating braids
42.			t	95,880	73,640	39,180	93,040	**301,740**	Waste mineral rock wool
43.	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	32.928,260	0,000	0,000	0,000	**32.928,260**	Mixed construction waste
44.	Saturated or spent ion-exchange resins	19 09 05	t	14,140	29,980	2,500	0,000	**46,620**	Waste regenerated ion mass
45.	Minerals (e.g. sand and rock)	19 12 09	t	0,000	0,000	195,780	0,000	**195,780**	Waste white sand
46.	Fluorescent tubes and other mercury-containing waste	20 01 21*	t	0,300	0,540	0,220	0,000	**1,060**	Waste fluorescent tubes
47.			t	0,007	0,160	0,080	0,460	**0,707**	Waste Hg lamps and thermometers
48.	Edible oils and fats	20 01 25	t	0,000	0,007	0,000	0,000	**0,007**	Commercial-waste edible oil

3.3. 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**

3.3.1. Working Environment Monitoring

- **Working Environment Noise Measurements**

Working environment noise measurements are shown in Table 58.

Table 58

NIKOLA TESLA TPPs BRANCH			
Working environment noise in 2017			
Organisational unit	**Operating unit**	**Registered noise level (dB(A))**	**Permissible noise level (dB(A))**
Nikola Tesla A TPP	Boiler room	At 11 measuring points, over 85	85
	Turbine hall	At 26 measuring points, over 85	85
	Outside facilities	At 11 measuring points, over 85	85
Railway transport	Storage areas and workshops, CDU and outside facilities	At 7 measuring points, over 85	85

Note: Noise measurements in 2017 were done at locations TENT A and RT.

3.3.2. Safety

- **Training**

Table 59 shows number of employees planned for training and number of employees who did training in 2017.

Table 59

NIKOLA TESLA TPPs BRANCH					
Training in 2016					
Organisational unit	**Number of employees**	**Foreseen for training**		**Trained**	
		No.	**%**	**No.**	**%**
Joint services	367	330	89,92	77	23,33
Nikola Tesla A TPP	638	575	90,13	567	98,61
Nikola Tesla B TPP	314	285	90,76	294	103,16
Kolubara TPP	299	270	90,30	125	46,30
Morava TPP	119	110	92,44	107	97,27
Railway transport	424	380	89,62	333	87,63
TOTAL: NIKOLA TESLA TPPs BRANCH	**2.161**	**1.950**	**90,24**	**1.503**	**77,08**

- **Work injuries**

Table 60 provides work injuries data for 2017.

Table 60

NIKOLA TESLA TPPs BRANCH						
Work injuries in 2016						
Organisational unit	**Number of employees**	**Injuries – Number of employees ratio**				
		Easy	**Easy**	**Easy**	**Easy**	**Easy**
Joint services	367	5	1	0	6	1,63
Nikola Tesla A TPP	638	6	2	0	8	1,25
Nikola Tesla B TPP	314	2	2	0	4	1,27
Kolubara TPP	299	2	1	0	3	1,00
Morava TPP	119	2	0	0	2	1,68
Railway transport	424	2	1	0	3	0,71
TOTAL: NIKOLA TESLA TPPs BRANCH	**2.161**	**19**	**7**	**0**	**26**	**1,20**

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 61 provides periodic examinations data verifying the work capability for 2017.

Table 61

NIKOLA TESLA TPPs BRANCH											
Work capability in 2017											
Organisational unit	**Number of employees**	**Periodical examinations**				**Work capability**					
		Referred to examination		**Examined**		**Capable**		**Limited capability**		**Not capable**	
		Број	**%**	**Број**	**%**	**Број**	**%**	**Број**	**%**	**Број**	**%**
Joint services	367	129	35,15	129	100	122	94,57	6	4,65	1	0,78
Nikola Tesla A TPP	638	544	85,27	534	98,16	461	86,33	65	12,17	8	1,5
Nikola Tesla B TPP	314	244	77,71	236	96,72	214	90,68	22	9,32	0	0,00
Kolubara TPP	299	213	71,24	203	95,31	192	94,58	7	3,45	4	1,97
Morava TPP	119	119	100,00	119	100,00	96	80,67	18	15,13	5	4,20
Railway transport	424	419	98,82	419	100,00	397	94,75	21	5,01	1	0,24
TOTAL: NIKOLA TESLA TPPs BRANCH	**2.161**	**1.668**	**77,19**	**1.640**	**98,32**	**1.482**	**90,37**	**139**	**8,48**	**19**	**1,16**

3.4. Public complaints

Public complaints are given in Table 62.

Table 62

NIKOLA TESLA TPPs BRANCH			
Public complaints in 2017			
Organizational part	**Complaint (No., date and submitted by)**	**Subject of the complaint**	**Measures taken**
NIKOLA TESLA A TPP	No public complaints		

NIKOLA TESLA B TPP	No public complaints		
KOLUBARA TPP	On 19.07.2017. a complaint by an unidentified person from Veliki Crljeni was filed to the Environmental Inspection Department.	Air pollution from coal landfill	At the request of the Inspector for Environmental Protection, photographs of the coal storage in the Kolubara TPP made on 19.07.2017. were submitted to him, following a conclusion on the state of the coal landfill - that there was no fire at thecoal landfill, and that there was no fire in the previous months too, or a smoldering at the coal landfill. Thereafter, there was no further action by the inspector.
	On 19.07.2017. a complaint by an unidentified person from Veliki Crljeni was filed to the Environmental Inspection Department.	Air pollution from ashlandfill	On 20.07.2017. an emergency inspection of the ash and slag landfill of Kolubara TPP was carried out by the Enviromental protection inspectors. After that, the Inspector brought a Decision imposing the following measures: humus padding of the embankment of the cassette B and the partition embankment between cassettes A and B, as well as the addition of a system for embankment sprinkling of the embankment around the cassette B with sprinklers. The measures were fully implemented and the inspector was informed in writing. Thereafter, there was no further action by the inspector.
	On 04.08.2017. a complaint by an unidentified person from Veliki Crljeni was filed to the Environmental Inspection Department.	Air pollution from Kolubara TPP 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 on 04.08.2017. The Environmental Inspector concluded by e-mail of 08.08.2017. that ESP sections of the K4 boiler are less efficient than the ones on boilers K3 and K5. The Environmental Inspector was sent an e-mail on 08.08.2017. from the director of Kolubara TPP informing the TENT director on 07.08.2017. about the failure of K4 boiler ESP and stoppage of the boiler K4. Thereafter, there was no further action by the inspector.
	On 31.08.2017. a complaint by an unidentified person from Veliki Crljeni was filed to the Environmental Inspection Department.	Air pollution from Kolubara TPP stacks	All the requested data- daily and monthly reports on the continuous measurements of air emissions and diagram of voltage measurements for the unit A5 were submitted by e-mail to the Environmental inspector on 31.08.2017. Thereafter, there was no further action by the inspector.
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 63 provides an overview of obtained permits and applications for new permits or extension of existing ones in 2017– Kostolac TPPs & OCMs Branch.

Table 63

KOSTOLAC TPPs & OCMs BRANCH			
Overview and status of permits in 2017			
Organisational unit	**Obtained permits and approvals (number and date)**	**Applications for new or extension of existing permits**	**Note**
TPP KOSTOLAC A			
TPP KOSTOLAC B	1. Building permit for stack onstruction for new unit B3 - ROP – MSGI – 20850 – CPI – 2/2017 No. 351 – 02 – 00111/2017 – 07 dated 14.7.2017. 2. Building permit for the construction of water treatment plant - ROP – MSGI – 20853 – CPI – 2/2017 No. 351 – 02 – 00112/2017 – 07 dated 14.7.2017.	-	-

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, SO_2, NO_2, 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 SO_2 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 2017, 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 (SO_2), suspended particulate matter (PM_{10}), soot and heavy metals (Pb, Cd, As and Ni) were identified by analysing samples collected within one month for TPM, while SO_2 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 - PM_{10} 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 64 shows the 2016 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 64

Kostolac TPPs and OCMs Branch						
Air quality in 2017						
Legal compliance (number of data or days exceeding the defined values)						
Air quality indicators		**TPM content (mg/m²/day)**	**Soot (μg/m³)**	**SO_2 concentration (μg/m³)**		
Averaging period		**Maximum permissible value (MPV)**	**Maximum permissible concentration (MPC))**	**LV**	**TV**	**LT**
One hour		**-**	**-**	**350**	**350**	**0**
***One day**		**-**	**50**	**125**		-
****One month**		**450**	**-**			
*****Calendar year**		**200**	**50**	**50**		**-**
		-	**-**	No measurements		
*		-	No exceedance	4 days on measuring point Klenovnik 2 days on measuring point Drmno 1 day on measuring point Selo Kostolac 2 days on measuring point Cirikovac		
**	1	No exceedance	-	No exceedance		
	2	No exceedance				
	3	No exceedance				
	4	No exceedance				
***	1	No exceedance	No exceedance	No exceedance		
	2	No exceedance				
	3	No exceedance				
	4	No exceedance				
Air quality indicators		**Particulate matter PM_{10} (μg/m³)**				

Averaging period		LV	TV	LT
*One day		50	50	0
***Calendar year		40	40	0
*	I	14 days out of 68 days	14 days out of 68 days	
	II	26 days out of 73 days	26 days out of 73 days	
	III	3 days out of 28 days	3 days out of 28 days	
	IV	21 days out of 71 days	21 days out of 71 days	

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

4.2.2. Air Emission Measurements

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 air emissions measurements**

During 2017 individual air pollutants emission measurements were carried out on the Kostolac A1 TPP (boilers 1 and 2), 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 (SO_2), nitrogen oxides (NO_x (NO_2)), carbon monoxide (CO), chlorine compounds (HCl) fluorine compounds (HF) and dust. In addition, technical and elementary coal analysis as well as ash chemical analysis were conducted at the same time.

- Measurement results are as follows:

NO_x emission at TEKO A1 ranged from 306,3 - 457,9 mg/Nm^3, at TEKO A2 from 390,1 – 401,2 mg/Nm^3, at TEKO B1 and TEKO B2 on the common stack from 363,4 – 367,2 mg/Nm^3 which is below ELV (500 mg/Nm^3) under current legal requirements.

Dust emission measurements for TPP Kostolac B are given in the Table 65. Measured values are above ELV (50 mg/Nm^3) for unit TEKO B2. There was no exceedance of ELV on unit B1 under current legal requirements.

Table 65

Kostolac TPPs and OCMs Branch				
Dust emission measurements in 2017				
Kostolac B1 and B2 TPP				
Dust (mg/Nm3)	TEKO B1	32	33	29
	TEKO B2	75	79	76

Table 66 provides an overview of individual pollutants air emission measurements for the Kostolac TPPs and OCMs Branch - Kostolac A TPP and Kostolac B TPP for 2017.

Table 66

Kostolac TPPs and OCMs Branch								
Individual Air Pollutants Emission Measurements for 2017								
Mass concentrations of pollutants (mg/Nm^3)								
Organisational unit	**Kostolac A TPP**				**Kostolac B TPP**		**ELV**	
	A1			**A2**	**B1**	**B2**		
Heat capacity MWt	358			689	1077,5	1077,5		
Boiler		**ELV[1]**	**ELV[2]**				**ELV[1]**	**ELV[2]**
SO_2	4.439	968	968	4.704	5.043	4.274	400	400
NO_x (NO_2)	360	600	600	397	229	512	500	500
CO	34	250	-	17	92	27	250	-
Dust	86	100	100	49	31	77	50	50

[1]Regulation stipulating limit values of air pollutants emission from Large Combustion Plants (OG RS № 6/2016)
[2] Directive 2001/80/EC limitation of emissions of certain pollutants into the air from Large Combustion Plants

Table 67 contains the analysis of individual air pollutants measurements data for 2017 in terms of their legal compliance related to Kostolac TPPs and OCMs Branch organisational units.

Table 67

Kostolac TPPs and OCMs Branch			
Legal compliance in 2017 – Air Pollutants Emission			
Organisational units	**Dust**	**SO_2**	**NO_x (NO_2)**
KOSTOLAC A TPP	Emission is above ELV (RS and EU) on TEKO A1 and TEKO A2 units	Emission is above ELV (RS and EU) on all units	Emission is below ELV (RS and EU) on TEKO A1 and TEKO A2 units
KOSTOLAC B TPP	- Emission is above ELV on B1 unit (RS and EU) - above ELV on B2 unit (RS and EU)		- emission is below ELV for unit B1 (RS and EU) - above ELV for unit B2 (RS and EU)

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.

Legal compliance is evaluated by comparing the measured values of air pollutants emissions with the emission limit values, ELVs, prescribed by the Regulation stipulating limit values of air pollutants emission from Large Combustion Plants (OG RS № 6/2016) and the Large Combustion Plants Directive (EU), which is related to limitation of emissions of hazardous substances into the air from large combustion plants 2001/80/EC.

- **Continuous air emissions measurements**

Between 2006 and 2014 devices for continuous measurement of air pollutants emissions (SO_2, NO_x, CO and dust) were installed at the Kostolac TPPs and OCMs Branch – Kostolac B TPP units and (SO_2, NO_x and dust) at the Kostolac TPPs and OCMs Branch – Kostolac A 2 unit, while continuous measurements have been performed since 2017 at Kostolac A 1 unit (SO_2, NO_x and dust). Procurement of equipment for continuous measurement of emission of CO gases for Kostolac A 2 TPP unit is envisaged. In addition to these basic devices, data acquisition and processing equipment was also installed and additional measurement devices: oxygen (O_2) 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 O_2 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.

The 2016 procurements include the certification of the entire system according to QAL 2 and QAL 3 procedures. Necessary measurements QAL 2 and QAL 3 were performed in 2017 and in the beginning of 2018 it was planned to obtain approval for independent emissions measurements from stationary sources for unit TEKO A1. After obtaining these certificates, the plan is to obtain approval for independent emissions measurements from stationary sources for unit TEKO A2 in 2018.

Kostolac B TPP

Kostolac B TPP comprises two identical units, each of 350 MW. Each unit has its own electrostatic precipitator with two branches. Continuous emission measurement devices for SO_2, NO_X, CO and dust, as well as O_2 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, guarantee measurements were done. Once the guarantee measurements were completed, QAL 2 and QAL 3 measurements were performed at TEKO B2 unit. After obtaining of the results request for continuous measurements approval will be submitted to the Ministry of Agriculture and Environmental Protection. Table 68 summarises the results of guarantee measurements at units TEKO B1 and TEKO B2.

Table 68

Kostolac TPPs & OCMs Branch			
Guarantee measurements at desulphurization plant in 2017			
Organisational units	**TEKO B1**	**TEKO B2**	ELV (mg/Nm^3)
SO_2	66	163	200
	65	149	
	37	153	
	30	125	
	71	192	
	64	157	
		111	
Dust	12	21	30
	11	23	
	10	23	
	11	28	
	11	27	
	10	25	
		20	
Mist content	24	78	100
Limestone consumption	11	14	19 t/h
	12	14	
	12	11	
	12	12	
	13	11	
	12	12	
		12	

Table 69 summarises the data related to the unit equipment with the equipment for continuous measuring of air emission in organizational units of Kostolac TPPs & OCMs Branch, ending in 2017.

Table 69

Kostolac TPPs & OCMs Branch									
Unit equipment level with devices for continuous emission measurement ending in 2017									
Analysers		Dust	Pollutants		Parameters				
			Gases		Content			p and t	Flow rate
			SO_2, $NO_x(NO_2)$, CO; dust	HCl and HF	humidity	CO_2	O_2		
TPP KOSTOLAC 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 installed for both boilers on the stack		Measuring exists
	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 installed on the stack, Total: 1 device In 2015, wet O2 measurement devices installed, including flue gas flow rate on the stack		Measuring of this unit exists
TPP KOSTOLAC B	B1	Devices installed on each unit on flue gas ducts behind each ESP, before (IDF). Total:2 devices B1: ESP1 and B2: ESP2	Devices installed on *each* unit after ESP, before ID fan. Total: 2 sets	-	-	-	Measuring devices installed on *each* unit after ESP, before ID fan. Total: 2 sets		2 measuring devices on each of the units
	B2			-	-	-			
TPP KOSTOLAC B	B1	Devices installed after desulphurization plant (new stack height 180 m). Each unit has its own flue gas pipe. Devices for continuous emission measurement installed on each flue gas pipe	Devices installed on each flue gas pipe	-	-	-	Devices installed on each flue gas pipe (2 sets)		Devices installed on each flue gas pipe
	B2			-	-	-			

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

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

Software performing statistical analysis of continuous measurements data (SO_2, NO_x (NO_2), 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 air emissions**

Table 70 provides an overview of emissions of air pollutants: dust, SO_2, NO_2 and CO_2 for the Kostolac TPP Branch in 2017.

Calculation of annual emissions of dust, SO_2 and NO_2 was performed based on measured mass concentrations data, flue gas volume flow rate and unit operating hours, while in the case of CO_2 based on fuel consumption data, shown in Table 71 and CEF- correction emission factor.

Table 70

Kostolac TPPs and OCMs Branch					
Air emissions (t/year) in 2017					
Organisational unit	**Dust**	**SO_2**	**$NO_x(NO_2)$**	**CO**	**CO_2**
TPP Kostolac A					
A1	319	15.951	1.185	115	821.919
A2	398	38.275	3.220	136	1.825.641
TOTAL: Kostolac A	**717**	**54.226**	**4.405**	**251**	**2.647.560**
TPP Kostolac B					
B1	380	61.434	2.789	1.124	2.644.101
B2	873	48.753	5.838	310	2.741.299
TOTAL: Kostolac B	**1.253**	**110.187**	**8.627**	**1.434**	**5.385.400**
TOTAL: Kostolac TPPs and OCMs Branch	**1.970**	**164.413**	**13.032**	**1.685**	**8.032.960**

Table 71

Kostolac TPPs and OCMs Branch		
Fuel consumption in 2017		
Fuel	**Unit**	**Fuel consumption (t/year)**
KOSTOLAC A TPP		
COAL	A1 - K1	**-**
	A1 - K2	**-**
	A1	954.991
	A2	2.125.395
	TOTAL	**3.080.386**
OIL	A1 - K1	**-**
	A1 - K2	**-**
	A1	650
	A2	762
	TOTAL	**1.412**
KOSTOLAC B TPP		
COAL	Б1	3.037.048
	Б2	3.153.914
	TOTAL	**6.190.962**
HEAVY FUEL OIL	Б1	2.439
	Б2	1.898
	TOTAL	**4.337**

- **Harmonisation of air emissions with EU legislation**

Dust

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/Nm^3 which is in line with the EU and Serbian legislation.

Individual measurements of air pollutants carried out in 2017 confirmed the deviation of mass concentrations for dust at the electrostatic precipitator outlet compared to the levels guaranteed by the equipment supplier on A1 Kostolac A TPP. In addition, increased flue gas temperature at the electrostatic precipitator inlet was also

identified compared to the design values. All ESP efficiency parameters will be examined in the coming period to undertake appropriate measures for ESP efficiency improvement at the Kostolac A1 TPP.

During 2017, measurements of the air pollutants emissions on the Kostolac TPP B1 and B2 units were performed. These measurements showed a certain deviation compared to the values guaranteed by the equipment suppliers. Reasons for exceeding the limit values is currently being investigated.

Sulphur dioxide

During the design and construction of Kostolac A and B TPP, no measures were taken to reduce SO_2 emissions, given that at the time no SO_2 emission limit values (ELVs) were stipulated.

Mass concentration of SO_2 in the flue gas are well above ELVs prescribed by Serbian and EU regulations. In order to reduce sulphur oxide emissions below 200mg/Nm^3 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 57.

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/Nm^3, while after burner reconstruction in 2017 they are between 228,14 – 229,88 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. Water Emission Measurements

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 O_2, % of O_2 saturation, COD, BOD_5, unfiltered water evaporation residue, filtered water evaporation residue, total suspended particulate matter, particulate matter, total surfactants, mineral oils, phenols, alkalinity, F, Cl, NO_2, NO_3, SO_4, PO_4, NH_4, Ca, Mg, hardness, Al, Fe, Mn, Cd, Cr^{6+}, 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 and coal landfills – Kostolac B TPP (piezometers and wells).

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 B TPP has recorded the current state, the so-called “initial state”, of groundwater quality of the inside ash landfill of the Cirikovac OCM. Groundwater quality data (“initial state”) are essential in further monitoring and evaluation of groundwater quality impacts of the ash landfill.

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 2017 by the accredited laboratory of the Public Health Institute Pozarevac.

Table 72 provides the analysis of wastewater and recipient watercourse quality data in 2017 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 72

Kostolac TPPs & OCMs Branch		
Wastewater and watercourses-recipients quality in 2017		
Organisational unit / **Water type**	**Kostolac A TPP**	**Kostolac B TPP**
Drainage wastewater from the ash landfill	▪ Electrical conductivity: 672 – 820 μs/cm ▪Arsenic: <20 μg/l ▪ Sulphates: 182,4- 432,4 mg/l	Drainage and overflow waters are reused
Overflow wastewater from the ash landfill	▪ Electrical conductivity: 493– 640 μs/cm ▪ Arsenic: 30 – 85 μg/l су изнад МДК - 50 μg/l ▪ Sulphates: 142,2 – 397,5 mg/l	Drainage and overflow waters are reused
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: 10,6 – 34,7 mg/l upstream and 7,4 – 38,4 mg/l downstream Mineral oil, upstream < 50 μg/l – 92 μg/l (in January 2017 one value was equal to 92 μg/l, other values were < 50 μg/l) and downstream < 50μg/l - 84 μg/l (in January 2017 one value was equal to 84 μg/l, and in October 2017 one value was equal to 73 μg/l, other values were < 50 μg/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 μg/l, below MPC-50μg/l, upstream and downstream from the discharge point ▪sulphates: 31,9 – 54,4 mg/l, upstream and 21,1 – 46,6 mg/l downstream Mineral oil in the Mlava River upstream < 50 – 101 μg/l (in January 2017 one value was equal to 101 μg/l, other values were < 50 μg/l) and downstream < 50 - 930μg/l (in January 2017 one value was equal to 65 μg/l, and in February 2017 one value amounted 930 μg/l, other values were < 50 μg/l) Mlava River water temperature increase downstream was within 3°C, which is in line with EU regulations.

Table 73 provides the analysis of groundwater quality data in piezometers in the vicinity of ash and slag landfill in 2017 for the Kostolac TPPs and OCMs Branch in terms of their legal compliance. During 2017, groundwater quality was controlled in 9 piezometers.

Table 73

Kostolac TPPs and OCMs Branch			
Groundwater quality in 2017			
Concentration	**Permitted values**		**Organisational unit**
	MPC	**RV**	**TPP Kostolac A and TPP Kostolac B**
Sulphates (mg/l)	**250**		Variable in piezometers around cassette B ranging from 169,8 to 505,4 in piezometers around the cassette C ranging from 243,8 to 509,5 in piezometers around the Cirikovac ash landfill: 16,7 to 645 piezometers away from the SKO landfill: 325,8 – 817 around the coal yard D5: 40,1 – 641,3
Arsenic (μg/l)	**10**	**60**	in piezometers around cassette B ranging from:<5 to 123 in piezometers around the cassette C ranging from:<8 to 57 in piezometers around the Cirikovac ash landfill:<5 to 14 piezometers away from the SKO landfill: <5 to 11 around the coal yard D5: <5
Zink (mg/l)	**3.000**	**800**	in piezometers around cassette B ranging from:13 to 86 in piezometers around the cassette C ranging from: <1 to 81 in piezometers around the Cirikovac ash landfill: 19 to 228 piezometers away from the SKO landfill: <13 to 14400 around the coal yard D5: 303 to 4430 Concentrations above RV

Manganese (mg/l)	**50**		Variable: in piezometers around cassette B ranging from: < 0,03 to 0,1 in piezometers around the cassette C ranging from: < 0,03 in piezometers around the Cirikovac ash landfill: < 0,03 to 1,48 piezometers away from the SKO landfill: 0,03 to 2,71 around the coal yard D5: 0,15 to 2,81
Ammonia (mg/l)	**0.1**		Variable: in piezometers around cassette B ranging from: < 0.041 to 0,123 in piezometers around the cassette C ranging from < 0.041 to 0,102 in piezometers around the Cirikovac ash landfill: < 0.041to 0.686 piezometers away from the SKO landfill: <0,041 to 1,738 around the coal yard D5: <0.041 to 0,478
Nitrites (mg/l)	**0.03**		In all piezometers the most common value was <0.002 mg/l ; except one value from piezometer in Cirikovac <0.002 to 0,409
Iron (mg/l)	**0.05**		Variable: in piezometers around cassette B ranging from: < 0,05 to 0,984 in piezometers around the cassette C ranging from < 0,05 to 1,21 in piezometers around the Cirikovac ash landfill 0,348 to 14,89 piezometers away from the SKO landfill: 0,095 to 1,915 around the coal yard D5: 0,53 to 1,09

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. Attachment 2. Remediation values of hazardous and harmful substances concentration and values indicating severe groundwater contamination (OG RS № 88/2010.

Concentration of all parameters except for manganese for certain months of the year, in the majority of piezometers, exceeded MPC. Increased zinc concentration is interpreted by dissolved metal coming from galvanized pipes forming the body of piezometers.

Table 74. provides analysis of data related to sanitary waste water quality at the inlet and outlet of the plant for treatment (BIODISK) for 2017.

Table 74

Kostolac TPPs and OCMs Branch	
Sanitary wastewater treatment plant operation in 2017	
Pollutants concentration (mg/l)	***BIODISK* plant Kostolac B TPP**
Suspended solids (mg/l)	
Plant inlet	53 – 604,6
Plant outlet	9,6 – 57 no ELV exceedance
5-day biological oxygen demand (BOD_5)	
Plant inlet	12 – 55
Plant outlet	5 – 24 no ELV exceedance
Operation efficiency evaluation	Meeting guaranteed values for suspended solids for all measurements and **BOD5**

Compliance was evaluated by comparing the measured values with the ones guaranteed by the equipment supplier for suspended particulate matter content and 5-day biological oxygen demand at the outlet (after treatment).

Suspended particulate matter and 5-day biological oxygen demand (BOD_5) at the *BIODISK* plant outlet do not exceed value guaranteed by the equipment supplier.

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 75 provides an overview of water amounts captured and discharged by the organizational units of Kostolac OCMs and TPPs Branch for 2017.

Table 75

Kostolac TPPs and OCMs Branch					
Water amounts in 2017 (m^3 /year x10^3)					
Organisational unit	**Waterintake**		**Discharged wastewater**		
	Used amounts		**Return cooling water**	**Overflow and drainage water from the ash landfill**	**Sanitary wastewater**
	Surface	**Ground***			
KOSTOLAC A TPP	374.376	0	354.102	19.259	Estimated around 200
KOSTOLAC B TPP	806.128	863	794.818	10.744	240
TOTAL: Kostolac OCMs and TPPs Branch	**1.180.504**	**863**	**1.148.920**	**30.003**	**240**

**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**

Activities aimed at replacing the existing and introducing a new ash and slag handling system on the Kostolac A TPP were completed. New ash and slag handling system was put in operation mid 2016. Upon system commissioning, new system performances were under proof.

Ash and slag were disposed to the Srednje 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.

Kostolac B TPP units were connected to the new thick slurry transportation and disposal system. Ash and slag are disposed to the Cirikovac OCM.

During 2017 FIDIC Engineer was selected (p2m Berlin GmbH in consortium with EHTING d.o.o Srbija) 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. Commecement of works is planned for the mid 2018.

4.2.4. Soil Emission Measurements

During 2015, 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 2015 by the Soil Institute from 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).

The content of heavy metals and other toxic elements in ash and soil ranged in usual concentrations and below remediation values for: chromium (Cr), cadmium (Cd), mercury (Hg), arsenic (As) and iron (Fe). Data evaluation was carried out in accordance with: 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), and the Regulation identifying the permitted amounts of hazardous and harmful substances in soil and irrigation water and their testing methods (OG RS № 23/94).

Ash coming from the Kostolac A TPP is disposed to the Cirikovac OCM. Putting in operation new system (thick slurry transportation) Kostolac A TPP started to dispose ash and slag to the ash and slag disposal site Cirikovac OCM, in mid 2016.

Ash coming from the Kostolac B TPP has from 1987/1991 until 2010 been disposed to the Srednje Kostolacko Ostrvo site. However, since 2010, after the new thick slurry technology was introduced, ash has been disposed to the Cirikovac OCM. Ash disposal area inside the Cirikovac OCM was developed in line with the environmental requirements and other legislation.

Data evaluation was performed in accordance with: 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), and the Regulation identifying the permitted amounts of hazardous and harmful substances in soil and irrigation water and their testing methods (OG RS № 23/94).

Table 76 shows measurement results evaluation in accordance with the above legislation. Data about the pollutants content in ash, as the potential pollution source, are also presented; however, these data were not evaluated, given that the above legislation is related to soil not ash.

Due to the problems related with the implementation of public procurements (delays in implementation), soil quality measurements in the vicinity of Kostolac TPPs and OCMs Branch were not performed in 2017 and it is planned to execute the above in the beginning of 2018.

Table 76

KOSTOLAC TPPs and OCMs BRANCH					
Content of hazardous and harmful substances in soil in 2015					
Content of hazardous and harmful substances	**MPC**	**LV**	**RV**	**Content of hazardous and harmful substances in soil in 2015 – Kostolac A and B TPPs**	
				Srednje Kostolacko Ostrvo landfill	**Cirikovac OCM landfill**
(mg/kg)	**mg/kg**				
Chromium (Cr)	**100**	**100**	**380**	Ash: 0,03 Soil: Not exceeding MPC LV and RV not exceeded in any of 58 samples	Ash: 0,06 Soil: Not exceeding MPC LV and RV not exceeded in any of 58 samples

Nickel (Ni)	**50**	**35**	**210**	Ash:0,58 Soil: of 58 samples -25 samples exceed MPC	Ash 0,55 Soil: of 58 samples -25 samples exceed MPC
Lead (Pb)	**100**	**85**	**530**	Ash: 0,10 Soil: of 58 samples -2 samples exceed MPC	Ash: 1.13 Soil: of 58 samples -2 samples exceed MPC
Copper (Cu)	**100**	**36**	**190**	Ash: 1.56 Soil: Not exceeding MPC LV and RV not exceeded in any of 58 samples	Ash: 1.07 Soil: Not exceeding MPC LV and RV not exceeded in any of 58 samples
Zinc (Zn)	**300**	**140**	**720**	Ash:0,37 Soil: Not exceeding MPC LV and RV not exceeded in any of 58 samples	Ash: 0,53 Soil: Not exceeding MPC LV and RV not exceeded in any of 58 samples
Cadmium (Cd)	**3**	**0.8**	**12**	Ash:0,01 Soil: Not exceeding MPC LV and RV not exceeded in any of 58 samples	Ash: 0,01 Soil: Not exceeding MPC LV and RV not exceeded in any of 58 samples
Arsenic (As)	**25**	**29**	**55**	Ash: 0,23 Soil: Not exceeding MPC LV and RV not exceeded in any of 58 samples	Ash: 0,81 Soil: Not exceeding MPC LV and RV not exceeded in any of 58 samples

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 2017 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 during the day, evening and night 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 77 shows the measured environmental noise levels in 2017 for the Kostolac TPPs and OCMs Branch (both open cast mines and thermal power plants).

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.

Table 77

Kostolac TPPs and OCMs Branch				
Noise levels in 2016 (dB)(A)				
Noise indicators limit values, Regulation stipulating noise indicators, limit values, methods assessing noise indicators, disturbance levels and harmful living environment noise effects (OG RS № 75/10	*** Closed premises**		Day and evening	Night
			35	30
	Open areas	Areas for relaxation and recreation, hospital and rehabilitation zones, cultural and historical sites, large parks	50	40
		Tourist areas, camps and school zones	50	45
		Purely residential areas	55	45
		Business-residential areas, trading-residential areas and children's playgrounds	60	50
		City centre, trading, crafts, administrative zones with flats, zone along motorways, state and city roads	65	55
		Industrial, storage and service areas and transport terminals without residential buildings	Noise at the boundary of this zone may not exceed the noise limit values of the other zone	

Measuring point	**TEKO A**			**TEKO B**			**Drmno OCM**	
	Crossroad to Dragulj	**FIO MInel**	**Staircase at Prim**	**Container park**	**Mlava River ship lock**	**Crushing facility**	Lookout point	Road to Klicevac village
Day	52,1	45,7	48,7	47,3	53,4	45,4	53,2	32,4
Day	51,1	46,8	48,1	46,7	53,6	44,6	54,2	31,3
Night	52,3	48,9	49,1	43,8	54,6	53,4	54,8	32,3
Night	52,6	50,2	49,6	43,2	55,4	53,8	55,1	33,8
Night	51,6	47,8	49,4	43,4	55,1	42,9	55,0	33,4

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

4.2.6. Waste

Waste created in 2017 is shown for the Kostolac TPPs and OCMs Branch (parts of both open cast mines and thermal power plants); in Table 78 in line with the Serbian waste management regulations.

Table 79 shows quantities of waste from Kostolac TPPs and OCMs Branch sold in 2017.

Table 78

Kostolac TPPs and OCMs Branch										
Waste generated in 2017										
№	**Official nomenclature of the Rules defining waste categories, its testing and classification OG RS № 56/10**	**Index number**	**Organizational unit**							**Note**
	Name		**TEKO A**	**TEKO B**	**∑**	**Drmno OCM**	**Cirikovac OCM**	**∑**	**Total**	
1	Waste printer cartridges other than the ones indicated under 08 03 17	08 03 18	0,007	0,053	**0,060**	0,044	0,080	**0,124**	**0,184**	-
2	Fly ash from coal	10 01 02	624.736,000	1.339.444,000	**1.964.180,000**	0,000	0,000	**0,000**	**1,964,180**	-
3	Calcium-based solid waste from gas desulphurization process	10 01 05	0,000	300,000	**300,000**	0,000	0,000	**0,000**	**300,000**	Gypsum
4	Used waxes and greases	12 01 12*	0,000	0,000	**0,000**	0,380	0,000	**0,380**	**0,380**	-
5	Mineral non-chlorinated hydraulic oil	13 01 10*	35,000	1,743	**36,743**	6,124	0,000	**6,124**	**42,867**	-
6	Mineral non-chlorinated motor oils, gearbox oils and lubrication oils	13 02 05*	0,000	0,000	**0,000**	15,200	0,000	**15,200**	**15,200**	-
7	Other motor oils, gearbox oils and lubrication oils - additive D2	13 02 08*	0,000	0,000	**0,000**	0,000	0,820	**0,820**	**0,820**	-
8	Other motor oils, gearbox oils and lubrication oils – Oil filters	13 02 08* 16 01 07*	0,000	0,000	**0,000**	1,260	0,000	**1,260**	**1,260**	Oil filter
9	Oils for insulation and heat transfer containing PCB	13 03 01*	4,706	0,000	**4,706**	0,000	0,000	**0,000**	**4,706**	-
10	Other fuels (including mixtures)	12 01 12* 13 07 03*	0,000	0,000	**0,000**	0,008	0,000	**0,008**	**0,008**	-
11	Other emulsions	13 08 02* 19 13 03*	0,000	1,980	**1,980**	1,040	0,000	**1,040**	**3,020**	Water - oil
12	Packaging containing residues of hazardous substances or contaminated by hazardous substances	15 01 10*	0,190	0,460	**0,650**	0,000	0,000	**0,000**	**0,650**	Chemicals packaging
			0,441	0,000	**0,441**	0,000	0,000	**0,000**	**0,441**	Packaging contaminated with PCB

			0,000	0,000	**0,000**	1,420	0,000	**1,420**	**1,420**	Metal packaging Oil barrels
13	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing, contaminated with hazardous substances	15 02 02*	0,000	0,000	**0,000**	0,800	0,000	**0,800**	**0,800**	Mutton cloth
14	Absorbents, filter materials, wiping cloths and protective clothing other than those indicated under 15 02 02	15 02 03	0,000	0,000	**0,200**	0,000	0,000	**0,000**	**0,200**	Air filter
15	Used tires	16 01 03	0,000	0,000	**0,000**	14,200	0,000	**14,200**	**14,200**	Car tyres
16	Transformers and condensers containing PCB	16 02 09*	12,680	0,000	**12,680**	0,000	0,000	**0,000**	**12,680**	-
17	Discarded equipment different from the one indicated under 16 02 09 to 16 02 12	16 02 13*	0,000	0,000	**0,000**	1,500	0,000	**1,500**	**1,500**	-
18	Lead batteries	16 06 01*	0,000	0,070	**0,070**	3,708	0,000	**3,708**	**3,778**	-
19	Plastics	17 02 03	0,000	0,500	**0,500**	0,100	0,000	**0,100**	**0,600**	-
20	Copper bronze brass	17 04 01	0,000	2,409	**2,409**	0,46	0,000	**0,460**	**2,869**	-
21	Aluminium	17 04 02	1,670	1,000	**2,670**	0,380	0,000	**0,380**	**3,050**	-
22	Iron and steel	17 04 05	374,029	890,120	**1.264,150**	748,960	90,030	**838,990**	**2.103,139**	Different thicknesses
			100,000	406,740	**506,740**	0,000	0,000	**0,000**	**506,740**	Impact plates and strips
23	Cables other than those indicated under 17 04 10	17 04 11	0,000	1,000	**1,000**	38,740	0,000	**38,740**	**39,740**	Copper cables
24	Earth and stone containing hazardous substances Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing, contaminated with hazardous substances	17 05 03* 15 02 02*	0,000	0,000	**0,000**	0,200	0,000	**0,200**	**0,200**	Earth and sand soaked with oil
25	Insulation materials other than those indicated under 17 06 01 and и 17 06 03	17 06 04	41,000	5,000	**46,000**	0,000	0,000	**0,000**	**46,000**	Mineral wool
26	Saturated or worn-out ion-exchange resins	19 09 05	0,000	18,000	**18,000**	0,000	0,000	**0,000**	**18,000**	-
27	Plastics and rubber	19 12 04	0,000	0,600	**0,600**	413,965	0,000	**413,965**	**414,565**	Rubber bands
28	Fluorescent tubes and other waste containing mercury	20 01 21*	0,147	0,235	**0,382**	0,177	0,000	**0,177**	**0,559**	-

29	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	0,606	**0,606**	7,390	0,000	**7,390**	**7,996**	**-**
30	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	0,006	**0,011**	0,015	0,000	**0,015**	**0,026**	Sodium bulbs

Table79

Kostolac TPPs and OCMs Branch										
Waste generated in 2017										
No.	**Official nomenclature of the Rules defining waste categories, its testing and classification OG RS № 56/10**	**Index number**	**Organizational unit**							
	Name		**TEKO A**	**TEKO B**	**Total**	**Drmno OCM**	**Cirikovac OCM**	**Total**	**Total**	**Note**
1	Fly ash from coal	10 01 02	0,000	16.294,88	**16.294,880**	0,000	0,000	**0,000**	**16.294,880**	**-**
2	Mineral non-chlorinated hydraulic oil	13 01 10*	34,258	7,008	**41,266**	5,930	0,000	**5,930**	**47,196**	**-**
3	Synthetic hydraulic oil	13 01 11*	0,000	0,000	**0,000**	1,805	0,000	**1,805**	**1,805**	**-**
4	Mineral non-chlorinated motor oils, gearbox oils and lubrication oils	13 02 05*	0,000	0,000	**0,000**	21,214	0,000	**0,000**	**21,214**	**-**
5	Copper bronze brass	17 04 01	0,000	1,500	**1,500**	0,000	0,000	**0,000**	**1,500**	**-**
6	Iron and steel	17 04 05	366,980	880,120	**1.247,100**	1300,000	0,000	**1300,000**	**2.547,100**	Different thicknesses
			53,200	391,740	**444,940**	0,000	0,000	**0,000**	**444,940**	Impact plates and strips
7	Cables other than those indicated under 17 04 10	17 04 11	0,000	0,000	**0,000**	21,950	0,000	**21,950**	**21,950**	copper

8			0,000	0,000	**0,000**	2,500	0,000	**2,500**	**2,500**	aluminium
9	Plastics and rubber	19 12 04	0,000	0,000	**0,000**	525,95	0,000	**525,95**	**525,950**	Rubber bands
10	Discarded electrical and electronic equipment other than the one indicated under 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	11,320	14,040	**25,360**	0,000	0,000	**0,000**	**25,360**	transformers

4.3. 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**

4.3.1. Working Environment Monitoring

Working environment noise measurements was not performed in 2017.

4.3.2. 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.

Table 80 shows the number of employees foreseen for training and the number of trained employees in 2017.

Table 80

Kostolac TPPs and OCMs Branch					
Training in 2017					
Organisational unit	**Number of employees**	**Foreseen for training**		**Trained**	
		№	**%**	**№**	**%**
KOSTOLAC A TPP	369	328	88,89	264	80,49
KOSTOLAC B TPP	401	283	70,57	320	113,07
TOTAL: Kostolac OCMs and TPPs Branch	**770**	**611**	**79,35**	**584**	**95,58**

Note: Some workers went through more than one training, for example due to relocation to other jobs and like

- **Work injuries**

Table 81 provides work injuries data for 2017.

Table 81

Kostolac TPPs and OCMs Branch						
Work injuries in 2017						
Organisational unit	**Number of employees**	**Injuries – Number of employees ratio**				
		Light	**Serious**	**Fatalities**	**Total**	**%**
KOSTOLAC A TPP	369	2	0	0	2	0,54
KOSTOLAC B TPP	401	4	0	0	4	1,00
TOTAL: Kostolac OCMs and TPPs Branch	**770**	**6**	**0**	**0**	**6**	**0,78**

4.3.3. Health

Table 82 provides periodic examinations data verifying the work capability of employees in 2017.

Table 82

Kostolac TPPs and OCMs Branch											
Work capability in 2017											
Organisational unit	Number of employees	Periodical examinations				Work capability					
		Referred to examination		Examined		Capable		Limited capability		Not capable	
		број	%	број	%	број	%	број	%	број	%
KOSTOLAC A TPP	369	328	88,89	324	98,78	294	90,74	29	8,95	0	0,00
KOSTOLAC B TPP	401	283	70,57	281	99,29	245	87,19	36	12,81	0	0,00
TOTAL: Kostolac OCMs and TPPs Branch	**770**	**611**	**79,35**	**605**	**99,02**	**539**	**89,09**	**65**	**10,74**	**0**	**0,00**

4.4. Public complaints

Public complaints in 2017 are shown in the Table 83.

Table 83

Kostolac TPPs and OCMs Branch		
Public complaint in 2017		
Organisational unit	Complaint (made by)	Subject of complaint Measures taken
KOSTOLAC A TPP KOSTOLAC B TPP	Complaint by the citizens of Klenovik village and Kostolac village	The complaint was made with regard to dispersing of ash from ash and slag landfill from Cirikovac OCM and Srednje kostolacko ostrvo ash landfill during blowing of strong winds (Kosava wind – east southeast wind). Undertaken measures: Based on the complaints of the residents of Klenovnik village: - Number of days of PM10 particles measuring was increased from 7 to 10 days a month - Spraying of dry parts of landfill is carried out - At the same time, parts of the landfill where ash disposal (cassette 2) is temporarily suspended are coated with 15-20 cm thick soil in order to stop ash from spreading. Based on the complaints of the residents of Stari Kostolac village: - Breakdown on the overhead line that supplies landfill spraying pumps system with electricity was eliminated - Water lens is constantly maintained on the landfill - New measuring equipment for PM 10 particles measuring for 7 days a month is installed in Stari Kostolac village.

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

No new license was obtained in 2017 for Panonske CHPP Branch and no new requests for their obtaining or extension was issued in 2017.

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

Measuring the air quality impacts of the Novi Sad CHPPs began after the first unit was commissioned in 1982. By 1998 measurements were performed around the plant by authorized institutions. The following parameters were measured: SO_2, NO_x, soot and dust, continuously for a period of one or two months. Between 1999 and 2004 there were no air quality measurements, but only measurements of hazardous and harmful substances air emissions (individual measurements).

By order of the inspector, from 2005 air quality measurements have been conducted on certain measuring points, in Novi Sad, by the authorized institutions. Air quality monitoring is conducted by an accredited laboratory, the *Institut zastite na radu a.d. Novi Sad*.

In 2017, air quality measurements in Novi Sad were carried out on three measuring points in the period from 1st January to 13th September 2017 on three measuring points as follows:

1. measuring point № 1 - building close to the water source at the Petrovoradinska Ada;
2. measuring point № 2 - Sonja Marinkovic local community premises, Kej zrtava racije 4, Novi Sad;
3. measuring point № 3 – *Radosno Detinjstvo* and *Duga* preschools premises, Sangaj district.

The following parameters were measured:

1. SO_2, NO_2, soot – every day on all three measuring points in the period from 1st January to 13th September 2017;
2. PM_{10} and Cr^{6+}, 30 days, 30 days, on all 3 measuring points in March, June and August 2017;
3. Heavy metals in particulate matter PM_{10} - Zn, Mn and Pb, once a week on the measuring point No. 1 in the period from 1st January to 13th September 2017;
4. PAH - 14 days on all 3 measuring points in March, June and August 2017.

Monthly air quality reports were delivered to the Provincial Secretariat for Urban Planning, Construction and Environmental Protection in Novi Sad.

Zrenjanin CHPP

No air quality measurements have been carried out in Zrenjanin CHPP from 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 2017.

Table 84 shows the analysis of air quality data for 2017 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 № 11/2010) and the Regulation amending the Regulation stipulating air quality monitoring conditions and requirements (OG RS № 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.

Table 84

PANONSKE CHPPs BRANCH											
Air quality in 2017											
Legal compliance (number of data or days exceeding legal limits)											
Air quality indicator	**Averaging period**	**TPM** (mg/m²/day)	*** Total suspended particles – PM-10 measured -10 (μg/m³)**			**Carcinogens (μg/m³)**			
		Maximum permissible value - MPV				**Maximum permissible value - MPV Target value - TgV**			
						Cr⁺⁶ MPV	**Cd TgV**	**As MPV, TgV**	**Ni MPV, TgV**
Averaging period		**-**	**LV**	**TV**	**TL**	**-**	**-**	**-**	**-**
***One day**		**-**	**50**	**50**	**0**	**-**	**-**	**-**	**-**
****One month**		**450**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
*****Calendar year**		**200**	**40**	**40**	**0**	**0,3**	**5**	**6**	**20**
NOVI SAD CHPP	1	No air quality measurements	** 9 exceedances – during the period of exceedance plant was out of operation			No exceedance	No air quality measurements		
	2		** 43 exceedances – during the period of exceedance plant was out of operation						
	3		** 8 exceedances – during the period of exceedance plant was out of operation						
ZRENJANIN CHPP	1	No air quality measurements							
	2								
SREMSKA MITROVICA CHPP	1	No air quality measurements							
	2								
Air quality indicator	**Averaging period**	**Soot (μg/m³)**	**NO₂ (μg/m³)**			**SO₂ (μg/m³)**			**Pb (μg/m³)**		
		Maximum permissible value - MPV	**LV**	**TV**	**TL**	**LV**	**TV**	**TL**	**LV**	**TV**	**TL**
One hour			**150**	**180**	**30**	**350**	**350**	**0**	-		
***One day**		**50**	**85**	**101**	**16**	**125**	**125**	**-**	**1**	**1**	**-**

***Calendar year		50	40	48	8	50	50	-	0,5	0,5	0
NOVI SAD CHPP	1	*No exceedances	*No exceedances			* No exceedance			*No exceedances		
	2	*No exceedances				**1 exceedance - during the period of exceedance plant was out of operation			*No exceedances		
	3	*No exceedances				*No exceedances					
ZRENJANIN CHPP	1	No air quality measurements									
	2										
SREMSKA MITROVICA CHPP	1	No air quality measurements									
	2										

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

Note:
*PM -10 measured
**Measuring points defined by the inspector are located in the vicinity of other pollution sources, such as traffic (exhaust gases) and other facilities emitting harmful substances into air
***Air quality measurements in 2016, were performed in the period from 1st January to 13th September 2017; the plant operated from 1st January to 17th February 2017 dnd from 06th November to 31st December 2017.

5.2.2. Air Emission Measurements

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

- 160m – Novi Sad CHPP
- 160m - Zrenjanin CHPP
- 105m/77.5m - Sremska Mitrovica CHPP
  - 105m – concrete stack
  - 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 air emission measurements**

Emissions of air pollutants for 2016 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 (SO_2), nitrogen oxides (NO_x - NO_2), carbon monoxide (CO), and dust.

Table 85 summarises the results of individual measurements of air pollutants for the Panonske CHPPs Branch conducted in 2017.

Table 85

PANONSKE CHPPs BRANCH						
Individual air emission measurements in 2017						
Mass concentrations of pollutants (mg/Nm^3)						
Novi Sad CHPP						
Unit	**A1 (K1 and K2)**			**A2(K3)**		
Heat output	**2x279 MWth**			**320 MWth**		
Heat output at stack	**878 MWth**					
Fuel	**Gas**			**25% heavy fuel oil: 75% gas**		
ELV		**ELV[1]**	**ELV[2]**		**ELV[1]**	**ELV[2]**
SO_2	-	н.п	н.п	0*	35	35
NO_x (NO_2)	-	н.п	н.п	631,95*	200	200
CO	-	н.п	н.п	20,1*	100	-
Dust	-	н.п	н.п	0,32*	5	5
Zrenjanin CHPP						
Unit	**Unit**			**Unit**		
Heat output	**Heat output**			**Heat output**		
Fuel	**Гас**			**-**		
ELV		**ELV[1]**	**ELV[2]**		**ELV[1]**	**ELV[2]**
SO_2	-	35	35	-	**-**	**-**
NO_x (NO_2)	-	300	300	-	**-**	**-**
CO	-	100	-	-	**-**	**-**
Dust	-	5	5	-	**-**	**-**
Sremska Mitrovica CHPP						
Unit	**Unit**			**Unit**		**Unit**
Heat output	**Heat output**			**Heat output**		**Heat output**
Fuel	**Fuel**		**Fuel**	**Fuel**		**Fuel**
ELV		**ELV[1]**	**ELV[2]**		**ELV[1]**	**ELV[2]**		**ELV[1]**	**ELV[2]**		**ELV[1]**	**ELV[2]**
SO_2	-	35	35	-	1.700	1.700	0	35	**-**	0	1.700	200
CO	-	100	-	-	175	-	0	100	**-**	114	300	-
NO_x (NO_2)	-	300	300	-	450	450	167	200	-200	455	650	650
Dust	-	5	5	-	50	50	-	-	**-**	1,8	50	30

[1]Decree stipulating air emission limit values of pollutants from combustion plants (OG RS № 6/2016)
[2]Directive 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 2017 and boiler 2 has been in operation for 43,99 hours in 2017
**Air emission measurement for Novi Sad CHHP boiler 3 is carried out twice and middle value is presented in the Table 76.

Boilers 2 and 3 of the Novi Sad CHPP fired natural gas during the entire 2017.

In 2017 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 2017. 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 2016 in the Sremska Mitrovica CHPP, one boiler fired biomass TE.K – 405 while auxiliary boilers in the auxiliary boiler room S-2400/2 and S-2400/1 operated exclusively on natural gas. Unit A3 was not in operation.

Table 86 shows the analysis of individual air pollutants emissions measurements for 2016 in terms of their legal compliance, for the Panonske CHPPs Branch.

Table 86

PANONSKE CHPPs BRANCH			
Legal compliance – air emissions in 2017			
Organisational unit	**Dust**	**SO_2**	**NO_x (NO_2)**
Novi Sad CHPP	Emission below ELV (RS and EU)	Emission below ELV (RS and EU)	Emission above ELV (RS and EU)
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) and the Large Combustion Plants Directive 2001/80/EC and the Medium Combustion Plant (MCP) Directive 2193/2015.

- **Continuous air emission measurements**

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, SO_2, CO, NO_2, NO_x, HCl, HF. Data acquisition and processing equipment was also installed.

Table 87 shows the continuous air emissions measurement equipment data for all the Panonske CHPPs Branch organisational units.

Table 87

PANONSKE CHPPs BRANCH									
Continuous air emissions measuring equipment in 2017									
Organisational unit	**Dust**	**Pollutants**		**Parameters**					
		Gases		**Content**			**p**	**t**	**flow**
		SO_2, NO_x (NO_2), CO	**HCl** and **HF**	**Humidity**	**CO_2**	**O_2**			
Novi Sad CHPP	1 analyser	1 analyser	1 analyser each				1 device each		
	Equipment installed at the level of 41.8 m, external stack lining. Platform located at the level of 40.0 m, external stack lining. Stack height - 160 m								
Zrenjanin CHPP	1 analyser	1 analyser	1 analyser each				1 device each		
	Equipment installed at the level of 38 m, external stack lining. Platform located at the level of 37.0 m, external stack lining. Stack height - 160 m.								
Sremska Mitrovica CHPP	1 device each						1 device each		
	Equipment installed on the horizontal rectilinear flue gas duct of the biomass boiler TE.K – 405, connected to the brick stack (77.5 m height).								

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

- **Annual air emissions**

Table 88 summarises air pollutants emissions: dust, SO_2, NO_2 and CO_2 for the Panonske CHPPs Branch in 2017.

Annual SO_2 and NO_2 emissions were calculated on the basis of the measured mass concentrations, flue gas flow rate and operating time of each unit, while CO_2 emissions were calculated based on the fuel consumption data shown in Table 79a and ECF – emission correction factor.

Table 88

PANONSKE CHPPs BRANCH				
Air emissions in 2017 (t/year)				
Organisational units	**Dust**	**SO_2**	**NO_x (NO_2)**	**CO_2**
NOVI SAD CHPP				
UNIT A1, B-1 and B -2	0,0051	0,000	10,0219	1.884,970
UNIT A2, B-3	0,28291	0,000	558,7005	138.784,720
Total: Novi Sad CHPP	**0,28801**	**0,000**	**568,7224**	**140.669,690**
ZRENJANIN CHPP				
Unit 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**
SREMSKA MITROVICA CHPP				
UNIT A3, B3/B4	0,000	0,000	0,000	0,000
S-2400/1	0,000	0,000	0,192	156,950
S-2400/2	0,000	0,000	1,970	2.372,080
S-2400/3	0,000	0,000	0,000	0,000
Biomass-fired boiler	0,0799	0,000	20,587	177,800*
Total: Sremska Mitrovica CHPP	**0,0799**	**0,000**	**22,749**	**2.706,830**
TOTAL: PANONSKE CHPPs	**0,36791**	**0,000**	**591,4714**	**143.376,520**

* CO_2 generated from the consumed natural gas for biomass boiler ignition

Table 89

PANONSKE CHPPs BRANCH			
Fuel consumption in 2017			
Organisational unit	**Fuel type**		
NOVI SAD CHPP			
	Gas (kStm3/god)	**Heavy fuel oil (kt /god)**	**Biomass (kt/god)**
Unit A1, B -1 and B -2	1.012,931	0,000	0,000
Unit A2, B-3	74.578,935	0,000	0,000
Total: Novi Sad CHPP	**75.591,866**	**0,000**	**0,000**
ZRENJANIN CHPP			
Unit A1	94,407**	0,000	0,000
Unit A2	46,375*	0,000	0,000
Total: Zrenjanin CHPP	**140,782***	**0,000**	**0,000**
SREMSKA MITROVICA CHPP			
Unit A3, B3/B4	0,00	0,000	0,000
S-2400/1	84,342	0,000	0,000

S-2400/2	1.274,686	0,000	0,000
S-2400/3	0,000	0,000	0,000
Auxiliary boiler room (total)	1.359,028	0,000	0,000
Biomass-fired boiler	95,545	0,000	4,580
Total: Sremska Mitrovica CHPP	**1.454,573**	0,000	**4,580**
TOTAL: PANONSKE CHPPs	**77.187,221**	**0,000**	**4,580**

* Fuel consumption for heating own facilities in Zrenjanin CHPP
**Fuel consumption for deconservation and conservation of the plant

- **Harmonisation of air emissions with EU legislation**

Sulphur dioxide

To reduce the Panonske CHPPs SO_2 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 SO_2 emission during its operation.

Nitrogen oxides

Novi Sad CHPP, Zrenjanin CHPP and Sremska Mitrovica CHPP

A study was envisaged: "Optimal directions targeting nitrogen oxide emissions reduction from PE EPS TPPs and CHPPs firing liquid and gaseous fuels". Optimal technical solutions will be selected based on the current nitrogen oxides air emissions and ELVs. To reduce nitrogen oxides mass concentrations, an upgrade of boiler burners was scheduled.

The procurement related to preparation of the above mentioned study was not launched during 2017.

5.2.3. Water Emission Measurements

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, BOD_5, 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 2017 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, BOD_5, 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 2017 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 trhough 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, BOD_5, total phosphorus, mineral oils, Pb, Cu, Ni, Zn, Cr, Fe, Cd.

Wastewater sampling was carried out at 4 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. Oily water at the inlet of the plant for oily water treatment,
4. Oily water after being processed in the plant for oily 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 2017 was controlled on three occasions.

Table 90 shows analysis of wastewater, watercourse - recipient water quality data for 2017 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 90

PANONSKE CHPPs BRANCH			
Wastewater and water recipient quality in 2017			
Water type	**Organizational unit**		
	Novi Sad CHPP	**Novi Sad CHPP**	**Novi Sad CHPP**
Wastewater	No exceedance in 2017	Neutralisation basin: no ELV exceedance Oily waters: no ELV exceedance Sanitary-sewage water Putoks: ELV exceedance Ammonia: 12,3mg/l Total inorganic nitrogen: 9,09-15,2mg/l Total phosphorous 3,25mg/l Suspended solids: 153mg/l COD: 130mg/l BOD: 145mg/l	No ELV exceedance **in the I quarter** ELV exceedance **in the II quarter** in the last manhole before pouring into the Sava River - nitrites: 0,33 mg/l No checking of waste water **in the III quarter**. No ELV exceedance **in the IV quarter**.
Recipient	No exceedance in 2017	Aleksandrovac Channel **prior to discharge**, ELV exceedance: Total inorganic nitrogen: 6,04mg/l Aleksandrovac Channel **after discharge,** ELV exceedance: Total inorganic nitrogen: 5,12mg/l	No exceedance in 2017

▪ Water amounts

Table 91 summarises the amount of water captured and discharged by organizational units of Panonske CHPPs Branch in 2017. Annual amounts are calculated on the basis of the capacity, water capture and discharge pumps' operating time and flow gauges data.

Table 91

PANONSKE CHPPs BRANCH								
Captured and discharged water amounts in 2017 (m^3/year x10^3)								
Organizational unit	**Waterintake**				**Discharged wastewater**			
	Used amounts		**Permitted amounts**		**Return cooling water**	**Oily water**	**Sanitary wastewater**	**Other water (neutralisation pit and luvo washing)**
	Surface	**Ground**	**Surface**	**Ground**				
Novi Sad CHPP	24.722,770	-	25.600,020	-	24.435,521	0,923	7,973	21,570
Zrenjanin CHPP	96,110	-	-	-	-	1,065	3,395	3,886
Sremska Mitrovica CHPP	21,400	18,119	-	*72,533	-	-	18,100	15,800
TOTAL: Panonske CHPPs Branch	**24.840,280**	**18,119**	**25.600,020**	**72,533**	**24.435,521**	**1,988**	**29,468**	**41,256**

* 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

After completion of "Pre-feasibility Study with Novi Sad CHPP Wastewater Treatment General Design" preparation of Preliminary Design, Feasibility Study with Basic Design and Study on estimation of environmental impact of the Novi Sad CHPP wastewater treatment plant is envisaged.

Zrenjanin CHPP

In 2017 "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. Soil Emission Measurements

No 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 so far. 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 d.o.o. laboratory. Testing will last for 5 years. More detailed information will be available upon preparation and adoption of the above mentioned study.

Novi Sad CHHP

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 CHHP 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 CHHP 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).

Zrenjanin CHHP

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 CHHP 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 CHHP 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 CHHP

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 CHHP 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 CHHP 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, Zrenjanin CHPP and Sremska Mitrovica CHPP) were carried out by an accredited laboratory of the Novi Sad Occupational Safety Institute from 2008 to 2009.

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

In the organizational units of the Branch, noise measurements were made in the period when the Rule Book on the permissible level of noise in the environment was in effect (Official Gazette of RS, No. 54/92).

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

Novi Sad CHHP

Novi Sad CHPP environmental noise levels were not measured in 2017. 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 2017. 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 CHHP grounds at different distances from the source of noise (fans for fresh air supply to the boiler).

Sremska Mitrovica CHHP

Sremska Mitrovica CHPP environmental noise levels were not measured in 2017. The last measurement was carried out on 27th February 2009.

Noise measurements were performed within Sremska Mitrovica CHPP area. All devices representing noise sources are stationary. Auxiliary boiler was in operation during noise measurements. The most important noise source is the fresh air fan used by the boiler. Device operation was monitored during the day, while on each of the measuring points two measurements were made during the day and one during the night.

Since environmental noise measurements haven't been conducted in 2017 in Panonske CHHP Branch, the noise limit values in accordance with the valid legislation are shown in the Table 92.

Table 92

<table>
<tr><td colspan="5">PANONSKE CHPPs BRANCH</td></tr>
<tr><td colspan="5">Noise levels (dB) in 2017</td></tr>
<tr><td rowspan="6">Noise indicators limit values, Regulation stipulating noise indicators, limit values, methods assessing noise indicators, disturbance levels and harmful living environment noise effects (OG RS № 75/10</td><td colspan="2" rowspan="2">Closed premises</td><td>Day and evening</td><td>Night</td></tr>
<tr><td>35</td><td>30</td></tr>
<tr><td rowspan="4">Open areas</td><td>Purely residential areas</td><td>55</td><td>45</td></tr>
<tr><td>Purely residential areas, trading-residential areas and children's playgrounds</td><td>60</td><td>50</td></tr>
<tr><td>City centre, trading, crafts, administrative zones with flats, zones along motorways, state and city roads</td><td>65</td><td>55</td></tr>
<tr><td>Industrial, storage and service areas and transport routes without residential buildings</td><td>50</td><td>40</td></tr>
<tr><td>Organisational unit</td><td colspan="2">Novi Sad CHPP</td><td>Zrenjanin CHPP</td><td>Sremska Mitrovica CHPP</td></tr>
<tr><td rowspan="2">Day</td><td colspan="3">Applicable noise levels</td></tr>
<tr><td colspan="2">No measurements in 2017</td><td>No measurements in 2017</td><td>No measurements in 2017</td></tr>
<tr><td>Night</td><td colspan="2">No measurements in 2017</td><td>No measurements in 2017</td><td>No measurements in 2017</td></tr>
</table>

5.2.6. Waste

Waste produced in 2017 is shown in Table 93 in line with the Serbian waste mnagement regulations.

Table 93

PANONSKE CHPPs BRANCH								
Waste in 2017								
№	Official nomenclature of the Rules defining waste categories, its testing and classification OG RS № 56/10 dated 10th August 2010		Unit	Organisational unit				Note
				Novi Sad CHPP	Zrenjanin CHPP	Sremska Mitrovica CHPP	Total Panonske CHHP Branch	
	Name	Index number		Created waste amounts				
1.	Waste paint and varnish containing organic solvents or other hazardous substances	08 01 17*	t	0,000	2,400	0,000	**2,400**	Waste epoxy tar coating
2.	Used printer cartridges other than indicated under 08 03 17	08 03 18	t	0,091	0,000	0,039	**0,130**	Waste printer cartridges
3.	Ash, slag and boiler dust (excluding boiler dust indicated under 10 01 04)	10 01 01	t	2,620	0,000	0,000	**2,620**	Waste ash
4.	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	136,720	**136,720**	Waste ash from biomass fired boiler
5.	Mineral non-chlorinated motor oils, gear oils and lubricants	13 02 05*	t	0,000	0,000	0,038	**0,038**	-
6.	Other motor oils, gear oils and lubricants	13 02 08*	t	0,100	0,000	0,000	**0,100**	Gearbox oil
7.	Insulation and heat transfer oils containing RSV	13 03 01*	t	0,000	1,080	0,000	**1,080**	-
8.	Fuel and diesel	13 07 01*	t	0,000	0,120	0,000	**0,120**	Diesel fuel
9.	Waste not otherwise specified	13 08 99*	t	0,840	0,000	0,000	**0,840**	Drainage pits cleaning sludge
10.	Packaging containing residues of hazardous substances or contaminated by hazardous substances	15 01 10*	t	0,000	0,060	0,000	**0,060**	Oily barrels
11.	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing, contaminated by hazardous substances	15 02 02*	t	0,070	0,009	0,000	**0,079**	Waste oily adsorption agent - sawdust and wiping cloths
12.	Discarded equipment other than the one indicated under 16 02 09 to 16 02 13	16 02 14	t	0,000	0,860	0,000	**0,860**	Waste from electrical and electronic equipment (transformer arresters, conducting insulators)
13.	Lead batteries	16 06 01*	t	6,340	4,000	0,000	**10,340**	Lead accumulators
14.	Aluminium	17 04 02	t	1,160	0,000	0,000	**1,160**	Aluminium sheet
15.	Zinc	17 04 04	t	4,180	0,000	0,000	**4,180**	Galvanized sheet
16.	Iron and steel	17 04 05	t	9,060	0,800	0,200	**10,060**	Different valves and fittings; Pipes; Valves

17.	Cables other than those indicated under 17 04 10	17 04 11	t	0,000	0,000	0,005	**0,005**	Copper insulated cables
18.	Insulation materials other than those indicated under 17 06 01 and 17 06 03	17 06 04	t	4,240	1,640	1,030	**6,910**	Waste mineral wool
19.	Construction materials containing asbestos	17 06 05*	t	1,020	0,000	0,270	**1,290**	Mixed building material containing asbestos, asbestos-cement corrugated sheet
20.	Grease and oil mixture treatment from oil/water separation other than the one indicated under 19 08 09	19 08 10*	t	0,000	9,580	0,000	**9,580**	Waste from grease and oil mixture treatment from oil/water separation
21.	Sludge from water decarbonisation	19 09 03	t	0,000	0,400	0,000	**0,400**	Sludge cakes
22.	Saturated or exhausted ion exchange resins	19 09 05	t	0,500	0,000	0,000	**0,500**	Waste ion exchange resin
23.	Paper and cardboard	20 01 01	t	0,000	0,000	0,020	**0,020**	-
24.	Fluorescent tubes and mercury-containing waste	20 01 21*	t	0,138	0,000	0,044	**0,182**	Waste fluorescent tubes
25.	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	0,141	**0,141**	-
26.	Plastics	20 01 39	t	0,000	0,000	0,124	**0,124**	Plastic nozzles

Note: Waste amounts are indicative. Actual amounts are identified during the sale when waste is measured by a scale certified by the competent organisation.
* - hazardous waste

In 2017 in Panonske CHPP Branch a part of waste was selled and a part was taken care of in accordance with the Law. Sold/delivered waste in 2017 is shown in the Table 94.

Table 94

PANONSKE CHPPs BRANCH								
Sold/delivered waste in 2017								
№	**Official nomenclature of the Rules defining waste categories, its testing and classification OG RS № 56/10 dated 10th August 2010**		**Unit**	**Организациони део**				**Note**
				Novi Sad CHPP	**Zrenjanin CHPP**	**Sremska Mitrovica CHPP**	**Total Panonske CHHP Branch**	
	Name	**Index number**		**Количине насталог отпада**				
1.	Used printer cartridges other than those indicated under 08 03 17	08 03 18	t	0,200	0,000	0,060	**0,260**	Waste cartridges
2.	Ash, slag and dust from boiler (other than boiler dust indicated under 10 01 04)	10 01 01	t	47,620	0,000	0,000	**47,620**	Waste ash
3.	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	136,720	**136,720**	Waste ash from biomass fired boiler
4.	Mineral non-chlorinated motor oils, gear oils and lubricants	13 02 05*	t	0,000	0,000	0,080	**0,080**	
5.	Other motor oils, gear oils and lubricants	13 02 08*	t	0,400	0,000	0,000	**0,400**	Gearbox oil

6.	Insulation and heat transfer oils containing PCB	13 03 01*	t	0,000	1,080	0,000	**1,080**	
7.	Waste not otherwise specified	13 08 99*	t	0,840	0,000	0,000	**0,840**	Sludge from cleaning of drainage pits
8.	Packaging containing residues of hazardous substances or contaminated by hazardous substances	15 01 10*	t	0,260	0,100	0,000	**0,360**	Oily barrels
9.	Absorbent, filter materials, (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	0,100	0,009	0,000	**0,109**	Waste oily adsorption agent - sawdust and wiping cloths
10.	Lead batteries	16 06 01*	t	6,540	0,000	0,000	**6,540**	Lead accumulators
11.	Aluminium	17 04 02	t	1,160	0,000	0,000	**1,160**	Aluminium sheet
12.	Zinc	17 04 04	t	4,580	0,000	0,000	**4,580**	Galvanized sheet
13.	Iron and steel	17 04 05	t	25,560	0,000	0,000	**25,560**	Different valves and fittings; Pipes; Valves
14.	Insulation materials other than those indicated under 17 06 01 and 17 06 03	17 06 04	t	29,240	1,160	3,960	**34,360**	Waste mineral wool
15.	Construction materials containing asbestos	17 06 05*	t	1,560	0,000	8,380	**9,940**	Mixed building material containing asbestos, asbestos-cement corrugated sheet
16.	Grease and oil mixture treatment from oil/water separation other than the one indicated under 19 08 09	19 08 10*	t	0,000	9,580	0,000	**9,580**	Waste from grease and oil mixture treatment from oil/water separation
17.	Saturated or exhausted ion exchange resins	19 09 05	t	2,000	0,000	0,000	**2,000**	Waste ion exchange resin
18.	Fluorescent tubes and mercury-containing waste	20 01 21*	t	0,300	0,340	0,040	**0,680**	Waste fluorescent tubes
19.	Discarded electrical and electronic equipment other than the one indicated under 20 01 21, 20 01 which contains hazardous substances	20 01 35*	t	0,100	0,003	0,000	**0,103**	Discarded electrical and electronic equipment containing hazardous subs.
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	0,140	**0,140**	
21.	Plastics	20 01 39	t	0,000	0,000	0,140	**0,140**	Plastic nozzles

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 CHHP

Working environment noise measurements were not conducted in 2017.

Zrenjanin CHHP

Working environment noise measurements in 2017 are shown in Table 95.

Sremska Mitrovica CHHP

Working environment noise measurements in 2017 are shown in Table 95.

Table 95

PANONSKE CHHP BRANCH			
Working environment noise in 2017			
Organisational unit	**Operating unit**	**Registered noise level (dB(A))**	**Permissible noise level (dB(A))**
ZRENJANIN CHHP	Chemical water treatment – control room	65,30	85
	Chemical water treatment-pumping station	84,90	85
	Mechanical workshop	79,90	85
SREMSKA MITROVICA CHHP	Water intake 1	94,1	85
	Mechanical workshop	86	85
	Mechanical workshop	83,5	85

5.3.2. Safety

- **Training**

Health and safety training – internal general OHS trainings are shown in the Table 96.

Table 96

PANONSKE CHHP BRANCH		
Training in 2017		
Organisational unit	**Number of trained employees**	**Note-internal trainings**
Main office	8	Change of workplaces – head office
Novi Sad CHHP	167	Workplaces with increased risk Novi Sad CHHP and change of workplaces
Novi Sad CHHP	5	Professional practice
Zrenjanin CHHP	12	Workplaces with increased risk, change of workplaces
Sremska Mitrovica CHHP	73	Workplaces with increased risk

NOTE: At the moment internal OHS training is being prepared in Zrenjanin CHHP which shall be conducted in 2018 for all employees assigned for workplaces without increased risk (legal obligation) as well as checking of skills for all employees assigned for workplaces with increased risk (legal obligation).

Other trainings in 2017 – external trainings are shown in the Table 97.

Table 97

PANONSKE CHHP BRANCH			
Other trainings in 2017			
No.	**Type of training**	**Number of persons**	**Note**
1.	Training for pumps	3	Novi Sad CHHP
2.	Hazardous matter transportation driver training (ADR)	3	Novi Sad CHHP 1 Zrenjanin CHHP 2
3.	Hazardous matter transportation driver training (ADR)	3	Novi Sad CHHP 1 Zrenjanin CHHP 2
4.	Training for fire protection professional exam (special training for fire protection)	58	Novi Sad CHHP 28 Zrenjanin CHHP 15 CHHP Sremska Mitrovica 15
5.	Seminar – 7th Annual Health&Safety Conference	1	Zrenjanin CHHP One-day seminar
6.	Training for steam turbines	3	Zrenjanin CHHP
7.	Seminar – First conference with international participation – environmental health and safety and safety at work	2	Zrenjanin CHHP One-day seminar
8.	General Fire Protection Training	93	CHHP Sremska Mitrovica
9	Training for handling the automatic fire alarm system	24	CHHP Sremska Mitrovica (lecture and practical check)

- **Work injuries**

Table 98 provides work injuries data for 2017.

Table 98

PANONSKE CHPPs BRANCH						
Work injuries in 2017						
Organizational unit	No. of employees	Injuries – Number of employees ratio				
		Light	Serious	Fatalities	Total	%
Head office	35	2	0	0	2	5,71
Novi Sad CHPP	174	6	1	0	7	4,02
Zrenjanin CHPP	130	1	1	0	2	1,54
Sremska Mitrovica CHPP	83	0	0	0	0	0,00
TOTAL: PANONSKE CHPPs BRANCH	**422**	**9**	**2**	**0**	**11**	**2,61**

5.3.3. Health

Table 99 provides periodical examinations data for high-risk workplaces in Panonske CHPP in 2017. Public Procurement is in progress conducted by EPS - Medical examinations of high-risk workers.

Table 99

PANONSKE CHPPs BRANCH											
Work capability in 2017											
Organizational unit	Number of employees	Periodical examinations				Work capability					
		Referred to examination		Examined		Capable		Limited capability		Not capable	
		№	%	№	%	№	%	№	%	№	%
Head office	35	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
Novi Sad CHPP	174	95	54,60	93	97,89	60	64,52	32	34,41	1	1,08
Zrenjanin CHPP	130	36	27,69	36	100,00	18	50,00	18	50,00	0	0,00
Sremska Mitrovica CHPP	83	73	87,95	71	97,26	37	52,11	34	47,89	0	0,00
TOTAL: PANONSKE CHPPs BRANCH	**422**	**204**	**48,34**	**200**	**98,04**	**115**	**57,50**	**84**	**42,00**	**1**	**0,50**

5.4. Public complaints

There were no public complaints in 2017.

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 2017 are shown in Table 100.

Table 100

DJERDAP HPPs BRANCH			
Overview and Status of Permits in 2017			
Organisational unit	**Obtained permits and approvals (number and date)**	**New applications for obtaining or extending the valid permits**	**Note**
DJERDAP 1 HPP	-	-	-
DJERDAP 2 HPP	No new permits and approvals obtained for Djerdap 2 HPP Negotin in 2017.	Application for a permit for the construction of a canopy for the storage of waste material in Kusjak.	-
PIROT HPP	Zavoj SHPP Location conditions No. 350-02-02286/2016-14 dated 14.11.2016 by Decision of the Government of the RS 14 No. 350-12630/2016-003 dated 27.07.2017. Continued work on the Toplodolska tunnel Location conditions No. 350-02-02373/2016-14 dated 07.02.2017. Rehabilitation of landslide on the Belski Bridge Information on Location No.350-01-04950/2016-14 dated 10.11.2016 and the Decision of the Institute for Nature Protection No. 019-44/4 dated 27.04.2017. Water supply of Rudine Information on Location No.350-01-04952/2016-14 dated 14.11.2016 Drainage of the torrential water in the village of Berilovac from the pipeline and landscaping the public area Information on Location No.03-350/639-15 dated 27.10.2016 and Amendment No.03-350/679-16 dated 19.12.2016. Increased maintenance of the access roads to the Toplodolska river Decision of the Institute for Nature Protection No. 019-201/3 dated 31.10.2016. The canopies in the parking lot of the Pirot HPP New Information on Location No.03-350/573-17 dated 24.11.2017 due to a spatial plan change. Pirot HPP On the date 03.05.2017, a letter received from the City Administration of Pirot concerning inability to issue the Information on Location. Rehabilitation of landslide on the Zavoj crossroads Decision of the Institute for Nature Protection No. 019-946/3 dated 27.04.2017.	1. Water supply of Rudine - Application for conditions to the Institute for Nature Protection in Niš. 2. Internal roads within Pirot HPP - Issuing a decision on the approval of works pursuant to Article 145. 3. Reinforced concrete road bridge across the regulated channel of the Berilovačka river near inlet into the River of Nišava – Application for the Information on Location submitted on the date of 05.09.2017.	-

	Geodetic networks for monitoring the accumulation and the occurrence of instability in the effect zone of Zavoj accumulation in Pirot HPP Decision of the Institute for Nature Protection No. 019-1215/3 dated 29.05.2017. Canopy for storing non-flammable materials and spare parts Decision of the City Administration of Pirot No. 03-U-351-787/ 2017 dated 01.08.2017 approving the works. Reinforced concrete road bridge over the grounded pipeline of Pirot HPP Information on Location No. 03-350/552-17 dated 16.10.2017 and Location conditions No.: 03-U-350/685-17 dated 04.12.2017. Reinforced concrete prestressed road bridge through drainage of HPP Zavoj with reinforced concrete road bridge following over the regulated channel of the Berilovačka River Information on Location No. 03-350/554-17 dated 16.10.2017 and Location conditions No. 03-U-350/684-17 dated 30.11.2017. Steel road bridge over the pillars of the siphon overflow Information on Location No. 03-350/553-17 dated 16.10.2017 and Location conditions No. 03-U-350/686-17 dated 01.12.2017.		
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 2017 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 2017 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 2017 are provided in Table 101.

Table 101

DJERDAP HPPs BRANCH							
Water amounts in 2017							
Organisational unit		Number of units	Permitted water amounts (installed discharge per unit) m^3/s	Discharged water amounts			
				Water used for electricity generation in 2017 $m^3/y \times 10^6$	Process water $m^3/y \times 10^6$	Sanitary water $m^3/y \times 10^3$	Total discharged water $m^3/y \times 10^6$
DJERDAP 1 HPP		6	800	72.154,000	3,629	262,033	72.403,900
DJERDAP 2 HPP		10	422	68.667,000	75,500	70,000	69.812,50
PIROT HPP		2	22,5	147,030	0,025	3,600	147,039
VLASINSKE HPPs	Vrla 1	4	I and II – 4 III and IV - 5	113,710	0,986	7,300	113,711
	Vrla 2	2	I – 8,5 II - 10	142,151	0,812	3,700	142,152
	Vrla 3	2	I – 8,4 II - 10	162,231	0,829	10,300	162,232
	Vrla	2	I – 8,4 II - 10	177,057	0,837	3,700	177,058
	Lisina – pumping plant	2	I – 3,6 II – 3,6	64,861	0,682	3,500	64,861

- **Water quality**

Following contractual obligations regarding wastewater management, the Institute Vatrogas d.o.o. Novi Sad executed sampling of wastewater from all PE EPS Djerdap HPPs Branch Kladovo facilities in 1st and 2nd quarter of 2017. Due to delay in public procurement procedure implementation and contract conclusion, wastewater and surface water quality sampling and testing were not performed in 3rd and 4th quarter of 2017.

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 2017 are summarised in Table 102.

Table 102

DJERDAP HPPs BRANCH															
Wastewater in 2017															
Organisational unit	**Testing parameters** (unit)	**Wastewater and surface water quality testing results for 2017**													**Test results comment and conclusion** (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)
		1st quarter			**2nd quarter**		**3rd quarter**				**4th quarter**				
		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	Limit values for surface water (class II)	
DJERDAP 1 HPP	MPN coliform bacteria (E. coli/1l)	-	2400	150	-	300	240	-	-	-	-	-	-	10 000	In 1st quarter, the measured values of tested parameters of surface water samples taken from the Danube River downstream of the Djerdap 1 HPP facilities generally match the class I, except BOD_5 and pH value – class V, phosphates and total nitrogen (TN) belong to class III, COD and nitrites – class IV. In 1st quarter, the measured values of tested parameters of surface water samples taken from the Danube River upstream of the Djerdap 1 HPP facilities generally match the class I, except dissolved oxygen,iron and TOC – class II, phosphates and TN – class III, BOD_5 and COD – class IV, nitrites - class V. In 2nd quarter, the measured values of tested parameters of surface water samples taken from the Danube River downstream of the Djerdap 1 HPP facilities generally match the class I, except TN and phosphates – class II, nitrites – class III, COD – class IV and BOD_5 - class V.
	Dissolved O_2 (mg/l)	-	6.29	9.52	-	8.84	8.32	-	-	-	-	-	-	7	
	Suspended substances (mg/l)	18	60	24	82	48	24	-	-	-	-	-	-	25	
	COD(mg/l)	3377	35	35	1284	70	49	-	-	-	-	-	-	15	
	BOD_5(mg/l)	2851	17	27	836	46	33	-	-	-	-	-	-	5	
	pH value	7.8	7.9	8.63	6.5	8	7.53	-	-	-	-	-	-	6.5-8.5	
	Total oil and grease (mg/l)	0.95	2.1	2.3	<0.1	4.3	6.2	-	-	-	-	-	-	5	

														In 2nd quarter, the measured values of tested parameters of surface water samples taken from the Danube River upstream of the Djerdap 1 HPP facilities generally match the class I, except TN and TOC – class II, phosphates and nitrites – class III, COD – class IV and BOD_5 - class V.
DJERDAP 2 HPP	MPN coliform bacteria (E. coli/1l)	-	2100	21000	-	2400	2400	-	-	-	-	-	-	10 000	The measured values of tested physical and chemical parameters of surface water samples taken from the Danube River downstream of the Djerdap 2 HPP facilities generally match class I, except TN and phosphates belong to class III, BOD_5, CO and nitrites belong to class IV of water surface. At the same location the measured values of microbiological parameters match class III of surface water, and content of fecal coliform bacteria were isolated.
	Dissolved O_2 (mg/l)	-	10,75	16,51	-	8,38	8,72	-	-	-	-	-	-	7	
	Suspended substances (mg/l)	30	20	38	86	20	24	-	-	-	-	-	-	25	
	COD(mg/l)	228	34	29	261	98	86	-	-	-	-	-	-	15	
	BOD_5(mg/l)	183	23	18	171	65	57	-	-	-	-	-	-	5	
	pH value	6,98	8,18	8,37	7,0	8,2	8,13	-	-	-	-	-	-	6.5-8.5	
	Total oil and grease (mg/l)	0,29	0,31	0,7	0,3	0,2	0,3	-	-	-	-	-	-	5	
PIROT HPP	MPN coliform bacteria (E. coli/1l)	-	2400	2400	-	3000	3000	-	-	-	-	-	-	10 000	The measured values of tested physical and chemical parameters of surface water samples taken from the Nisava River downstream of the wastewater inlet from Pirot HPP generally match class I, except TN and content of phosphates belong to class II, content of nitrites – class III, ammonia and COD – class IV, TOC, and BOD_5 belonging to class V of surface water. At the same location the measured values of microbiological parameters match class III of surface water, the content of fecal coliform
	Dissolved O_2 (mg/l)	-	8,3±1,91	8,25± 1,91	-	10,27± 2,36	10,92± 2,51	-	-	-	-	-	-	7	
	Suspended substances (mg/l)	-	8±3	22±5	-	24±5	62±13	-	-	-	-	-	-	25	
	COD(mg/l)	-	146±25	72±18	-	107±31	117± 29	-	-	-	-	-		15	

	BOD_5(mg/l)	-	95±25	48±12	-	71±18	78±20	-	-	-	-	-	-	5	bacteria and aerobic mesophilic bacteria were isolated.
	pH value	-	8,0±0,48	8,38± 0,5	-	8,0± 0,5	8,09± 0,5	-	-	-	-	-	-	6.5-8.5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	5	
VLASINSKE HPPs	MPN coliform bacteria (E. coli/1l)	-	300	800	-	-	-	-	-	-	-	-	-	10 000	
	Dissolved O_2 (mg/l)	-	9,81	9,42	-	-	-	-	-	-	-	-	-	7	
	Suspended substances (mg/l)	-	48	62	-	-	-	-	-	-	-	-	-	25	Sample analysis established that the measured values of the samples in the first quarter comply with the legal requirements. The tested samples predominantly match classes I and II.
VRLA 1 HPP	COD(mg/l)	-	16	20	-	-	-	-	-	-	-	-	-	15	
	BOD_5(mg/l)	-	11	14	-	-	-	-	-	-	-	-	-	5	
	pH value	-	8	6,71	-	- -	-	-	-	-	-	-	-	6.5-8.5	
	Total oil and grease (mg/l)	-	-	-	-	- -	-	-		-	-	-	-	5	
VLASINSKE HPPs	MPN coliform bacteria (E. coli/1l)	-	800	2400	-	-	-	-		-	-	-	-	10 000	
	Dissolved O_2 (mg/l)	-	9,42	10,38	-	-	-	-		-	-	-	-	7	Sample analysis established that the measured values of the samples in the first quarter comply with the legal requirements. The tested samples predominantly match classes I and II.
VRLA 2 HPP	Suspended substances (mg/l)	-	62	86	-	-	-	-		-	-	-	-	25	
	COD(mg/l)	-	20	26	-	-	-	-		-	-	-	-	15	

	BOD_5(mg/l)	-	14	17	-	-	-	-		-	-	-	-	5	
	pH value	-	6,71	7,88	-	-	-	-	-	-	-	-	-	6.5-8.5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	5	
VLASINSKE HPPs	MPN coliform bacteria (E. coli/1l)	-	24000	500	-	-	-	-	-	-	-	-	-	10 000	Sample analysis established that the measured values of the samples in the first quarter comply with the legal requirements. The tested samples predominantly match classes I and II.
	Dissolved O_2 (mg/l)	-	10,38	10,39	-	-	-	-	-	-	-	-	-	7	
	Suspended substances (mg/l)	-	86	52	-	-	-	-	-	-	-	-	-	25	
VRLA 3 HPP	COD(mg/l)	-	26	25	-	-	-	-	-	-	-	-	-	15	
	BOD_5(mg/l)	-	17	19	-	-	-	-	-	-	-	-	-	5	
	pH value	-	7,88	7,99	-	-	-	-	-	-	-	-	-	6.5-8.5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	5	
VLASINSKE HPPs	MPN coliform bacteria (E. coli/1l)	-	500	800	-	-	-	-	-	-	-	-	-	10 000	Sample analysis established that the measured values of the samples in the first quarter comply with the legal requirements. The tested samples predominantly match classes I and II.
	Dissolved O_2 (mg/l)	-	10,39	10,89	-	-	-	-	-	-	-	-	-	7	
	Suspended substances (mg/l)	-	52	52	-	-	-	-	-	-	-	-	-	25	
VRLA 4 HPP	COD(mg/l)	-	25	29	-	-	-	-	-	-	-	-	-	15	
	BOD_5(mg/l)	-	19	21	-	-	-	-	-	-	-	-	-	5	

	pH value	-	7,99	8,51	-	-	-	-	-	-	-	-	-	6.5-8.5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	5	
VLASINSKE HPPs **LISINA PSP**	MPN coliform bacteria (E. coli/1l)	-	24000	3800	-	-	-	-	-	-	-	-	-	10 000	Sample analysis established that the measured values of the samples in the first quarter comply with the legal requirements. The tested samples predominantly match classes I and II.
	Dissolved O_2 (mg/l)	-	9,16	9,81	-	-	-	-	-	-	-	-	-	7	
	Suspended substances (mg/l)	-	46	48	-	-	-	-	-	-	-	-	-	25	
	COD(mg/l)	-	27	16	-	-	-	-	-	-	-	-	-	15	
	BOD_5(mg/l)	-	18	11	-	-	-	-	-	-	-	-	-	5	
	pH value	-	7,1	8	-	-	-	-	-	-	-	-	-	6.5-8.5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	5	

6.2.3. Waste

Waste management followed the defined procedures. Waste amounts generated in 2017 are shown in Table 103.

Table 103

DJERDAP HPPs BRANCH									
Generated Waste in 2017									
№	Official nomenclature of the Rules defining waste categories, its testing and classification (OG RS № 56/10 Dated 10.08.2010)		Unit	Organisational unit				Total	Note
				Djerdap 1 HPP	Djerdap 2 HPP	Pirot HPP	Vlasinske HPPs		
	Name	Code		Amounts					
1.	Sodium hydroxide and potassium hydroxide	06 02 04*	t	0,001	0,000	0,000	0,000	0,001	Waste categorized chemicals
2.	Waste containing mercury	06 04 04*	kg	0,098	0,000	0,000	0,000	0,098	Mercury
3.	Other organic solvents, washing liquids and essential liquids	07 01 04*	t	0,000	0,220	0,000	0,000	0,220	Waste chemicals
4.	Waste paint and varnish containing organic solvents or other hazardous substances	08 01 11*	t	0,587	0,447	0,000	0,000	1,034	Waste paint in solid state (expired)
5.	Waste printer cartridges other than the ones specified in 08 03 17	08 03 18	t	0,031	0,013	0,065	0,050	0,159	Toner cartridges and ink cartridges
6.	Waste adhesives and sealants containing organic solvents or other hazardous substances	08 04 09*	t	0,317	0,000	0,000	0,000	0,317	Waste adhesives
7.	Used wax and grease	12 01 12*	t	0,238	0,500	0,000	0,000	0,738	Waste lubricating grease
8.	Mineral non-chlorinated hydraulic oils	13 01 10*	t	1,654	0,000	0,000	0,000	1,654	Waste hydraulic oil
9.	Mineral non-chlorinated engine oils, gearbox oils and lubricants	13 02 05*	t	0,500	1,040	0,130	0,000	1,670	Motor oil
				0,330	0,300	0,000	0,000	0,630	Gearbox oil
10.	Mineral non-chlorinated oils used for insulation and heat transfer	13 03 07*	t	1,425	0,135	0,260	14,850	16,670	Waste transformer oil

11.	Gasoline	13 07 02*	t	0,200	0,000	0,000	0,000	0,200	Gasoline with water and sludge
12.	Other fuels (including mixtures)	13 07 03*	t	0,380	0,000	0,000	0,000	0,380	Oil fuel
				0,380	0,000	0,000	0,000	0,380	Petroleum with water
13.	Other emulsions Oiled water from the oil / water separator	13 08 02* 13 05 07*	t	13,897	18,093	0,000	0,230	32,220	Oil emulsion (mixed with adsorbents and other impurities)
				0,000	0,000	0,000	0,870	0,870	Oiled water
14.	Mineral non-chlorinated hydraulic oils Wastes not otherwise specified	13 01 10* 13 08 99*	t	7,299	0,720	0,000	0,000	8,019	Waste turbine oil
				0,000	0,000	0,000	0,000	0,000	Waste grease
				0,009	0,129	0,000	0,000	0,138	Compressor oil
15.	Wooden packaging	15 01 03	t	0,000	0,000	1,605	0,570	2,175	Waste wooden packaging
16.	Packaging containing residues of hazardous substances or contaminated by hazardous substances	15 01 10*	t	6,020	0,017	0,980	0,000	7,017	Chemicals packaging
17.	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	0,112	2,200	0,410	0,725	3,447	Cloths, adsorbents contaminated by hydrocarbons
18.	Used tires	16 01 03	t	0,000	7,182	0,750	2,000	9,932	Worn tires
19.	Plastics	16 01 19 15 01 02	t	0,000	0,708	0,428	0,010	1,146	Waste plastics
20.	Waste not otherwise specified	16 01 99	t	0,000	0,090	0,000	0,000	0,090	Disposed belt slings
21.	Organic wastes containing hazardous substances	16 03 05*	t	0,000	0,000	0,000	0,148	0,148	Waste construction additives
22.	Depleted liquids used as catalysts	16 08 06*	t	0,076	0,000	0,000	0,000	0,076	Waste categorized chemicals
23.	Mixtures or individual fractions of concrete, bricks, tiles and ceramics other than those specified in 17 01 06	17 01 07	t	0,000	18,400	0,000	0,000	18,400	Waste construction material

24.	Copper, bronze, brass	17 04 01	t	5,510	0,000	0,533	11,650	17,693	Copper
			t	0,062	0,000	0,000	0,000	0,062	Brass
			t	0,694	0,014	0,000	0,000	0,708	Bronze
25.	Cables other than those specified in 17 04 10	17 04 11	t	9,668	0,100	0,500	0,715	10,983	Copper cable
26.	Aluminium	17 04 02	t	0,378	0,000	0,047	0,000	0,425	Aluminium
	Ferrous metals	19 12 03	t	0,000	1,373	0,000	0,000	1,373	Aluminium cable
27.	Iron and steel	17 04 05	t	0,911	0,000	0,000	0,000	0,911	Steel wires
				4,537	0,230	0,000	0,050	4,817	Steel sheets
				0,427	1,550	0,000	0,000	1,977	Prochrome
				230,431	136,544	1,840	41,715	410,530	Waste iron
				2,276	1,102	0,112	0,000	3,490	Metal scrapings
				0,000	0,544	0,000	0,000	0,544	Tools – waste material
				0,000	0,140	0,000	0,000	0,140	Electrodes – waste material
28.	Building materials containing asbestos	17 06 05*	t	0,083	2,461	0,000	0,000	2,544	Asbestos pipes, salonite and asbestos cloth
29.	Insulating materials other than those specified in 17 06 01 and 17 06 03	17 06 04	t	0,635	0,000	0,000	0,000	0,635	Mineral wool
30.	Paper and cardboard	20 01 01	t	0,358	0,000	0,300	0,018	0,676	Waste paper material
31.	Glass	20 01 02	t	0,000	0,000	0,040	0,000	0,040	Waste glass
32.	Fluorescent tubes and other waste containing mercury	20 01 21*	t	0,124	0,429	0,046	0,003	0.602	Waste fluorescent lamps
33.	Batteries and accumulators specified in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing such batteries Lead batteries	20 01 33* 16 06 01*	t	1,132	0,079	0,224	0,287	1,722	Waste lead batteries

34.	Discarded electrical and electronic equipment containing hazardous components other than the ones specified in 20 01 21 and 20 01 23 Discarded equipment containing hazardous components other than the ones specified from 16 02 09 up to 16 02 12	20 01 35* 16 02 13*	t	1,884	5,003	0,197	73,300	80,384	Disposed electrical and electronic equipment and parts
35.	Wood other than the one specified in 20 01 37	20 01 38	t	2,000	0,370	0,000	1,120	3,490	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 2017 are as follows in Table 104.

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 104

DJERDAP HPPs BRANCH									
Waste delivered in 2017									
№	**Official nomenclature of the Rules defining waste categories, its testing and classification (OG RS № 56/10 dated 10.08.2010)**		**Unit**	**Organisational unit**				**Total**	**Note**
				Djerdap 1 HPP	**Djerdap 2 HPP**	**Pirot HPP**	**Vlasinske HPPs**		
	Name	**Code**		**A m o u n t s**					
1.	Sodium hydroxide and potassium hydroxide - POH	06 02 04*	t	0,005	0,000	0,000	0,000	0,005	-
2.	Phosphoric Acid - Waste	06 01 04*	t	0,016	0,000	0,000	0,000	0,016	-
3.	Other organic solvents, washing liquids and essential liquids	07 01 04*	t	0,052	0,000	0,000	0,000	0,052	Isopropyl alcohol, toluene
4.	Waste solvent	07 01 04*	t	0,000	0,370	0,000	0,000	0,370	-

5.	Other organic solvents, washing liquids and essential liquids	07 01 04*	t	0,001	0,000	0,000	0,000	0,001	Ethyl alcohol
6.	Other organic solvents, washing liquids and essential liquids	07 01 04*	t	0,026	0,000	0,000	0,000	0,026	Hidranal culomat
7.	Organic halogenated solvents, washing liquids and essential liquids	07 01 03*	t	0,002	0,000	0,000	0,000	0,002	Chloroform
8.	Waste paint and varnish containing organic solvents or other hazardous substances	08 01 11*	t	1,572	0,735	0,000	0,000	2,307	-
9.	Used wax and grease	12 01 12*	t	3,335	0,000	0,000	0,000	3,335	
10.	Other fuels (including mixtures)	13 07 03*	t	7,800	0,000	0,000	0,000	7,800	Oil fuel
11.	Gasoline	13 07 02*	t	0,200	0,000	0,000	0,000	0,200	-
12.	Other fuels (including mixtures)	13 07 03*	t	0,380	0,000	0,000	0,000	0,380	Waste petroleum mixed with water
13.	Other emulsions	13 08 02*	t	26,514	44,014	0,000	1,000	71,528	-
14.	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	t	1,525	3,816	1.02	3,000	9,361	-
15.	Organic wastes containing hazardous substances	16 03 05*	t	1,148	0,000	0,000	0,000	1,148	Additives
16.	Organic wastes containing hazardous substances	16 03 05*	t	0,957	0,000	0,000	0,000	0,957	Penetrants
17.	Building materials containing asbestos	17 06 05*	t	0,000	0,039	0,000	0,000	0,039	Waste asbestos cloth

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 2017 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 2017, noise measurements in the working environment were not made in the organizational units of Djerdap 1 HPP, Djerdap 2 HPP, Pirot HPP, Vlasinske HPPs, as it was done by the end of 2016, by the Institute for Occupational Safety AD Novi Sad. All rated noise levels in the working environment were below or at the normative level prescribed by the Regulations on Measures and Standards of Workplace Noise Protection at Work ("Official Gazette of the Republic of Serbia", No. 96/2011 and 78/2015).

In 2017, noise measurements were carried out in the working environment of the facilities of the Directorate for Modernization and Revitalization in Belgrade and the Sector for Coastal Maintenance in Požarevac Đerdap HPP Branch as a part of the periodical measurement and testing of working environment conditions.The measurements were made under Contract No. 01.01.-229650/36-2016, for the administrative building of Djerdap HPP in August 2017 by the Institute for Occupational Safety AD Novi Sad. All 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).

6.3.2. Occupational Safety

- **Training of employees**

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 2017 the following types of training were:

- Training of the employees for safety and health at work 166
- Visitors training 664
- Training of students and pupils on practical classes 66
- Training for safe work with the equipment 48
- Fire protection training 5
- IMS training 23
- Contractors' employees training (EHSP 0.06 procedure) 1080

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 105.

Table 105

DJERDAP HPPs BRANCH					
Training of employees in 2017					
Organisational unit	**Number of employees**	**For training**		**Trained**	
		Number	**%**	**Number**	**%**
Djerdap 1 HPP	421	0	0,00	0	0,00
Djerdap 2 HPP	177	51	28,81	51	100
Pirot HPP	31	31	100	31	100
Vlasinske HPPs	105	78	74,29	76	97,44
SCM Pozarevac	26	26	100	5	19,23
DMR Belgrade	17	17	100	3	17,65
TOTAL: DJERDAP HPPs BRANCH	**777**	**203**	**26,13**	**166**	**81,77**

- **Occupational injuries**

Table 106 provides occupational injuries in 2017.

Table 106

DJERDAP HPPs BRANCH						
Occupational injuries in 2017						
Organisational unit	**Number of employees**	**Injuries in relation to the number of employees**				
		Light	**Severe**	**Fatal**	**Total**	**%**
Djerdap 1 HPP	421	8	1	0	9	2,14
Djerdap 2 HPP	177	0	0	0	0	0,00
Pirot HPP	31	0	0	0	0	0,00
Vlasinske HPPs	105	0	0	0	0	0,00
SCM Pozarevac	26	0	0	0	0	0,00
DMR Belgrade	17	0	0	0	0	0,00
TOTAL: DJERDAP HPPs BRANCH	**777**	**8**	**1**	**0**	**9**	**1,16**

6.3.3. Health Protection

In 2017, the medical examinations were performed for all emloyees in the organizational units of Djerdap 2 HPP, Pirot HPP, Vlasinske HPPs, DMR Belgrade and SOP Požarevac by the Institute of Occupational Health “Dr Dragomir Karajovic” – Belgrade.

During 2017, periodical medical examinations were carried out for the employees working at high risk jobs of the Djerdap 1 HPP Branch by the Institute of Occupational Health of Serbia "Dr Dragomir Karajović" - Belgrade.

Table 107 shows the data on the results of periodical medical examinations for the employees of the Djerdap HPPs Branch.

Table 107

DJERDAP HPPs BRANCH											
Work ability and Health of employees in 2017											
Organisational unit	Number of employees	Periodical examination				Work capability					
		For medical examination		Examined		Capable		Limited capability		Not capable	
		Number	%	Number	%	Number	%	Number	%	Number	%
Djerdap 1 HPP	421	185	43,94	185	100	169	91,35	15	8,11	1	0,54
Djerdap 2 HPP	177	177	100	170	96,05	157	92,35	12	7,06	1	0,59
Pirot HPP	31	31	100	31	100	31	100	0	0	0	0
Vlasinske HPPs	105	105	100	78	74,29	68	87,18	10	12,82	0	0
SCM Pozarevac	26	26	100	13	50	11	84,62	2	15,38	0	0
DMR Belgrade	17	17	100	16	94,12	16	100	0	0	0	0
TOTAL: DJERDAP HPPs BRANCH	**777**	**541**	**69,63**	**493**	**91,13**	**452**	**91,68**	**39**	**7,91**	**2**	**0,41**

6.4. Public complaints

Public complaints in 2017 are shown in Table 108.

Table 108

DJERDAP HPPs BRANCH	
Public complaints in 2017	
Organisational unit	Complaint
	No complaints in the reporting period

7. DRINSKO-LIMSKE HPPS BRANCH

The Drinsko-Limske HPPs Branch comprises the following hydroelectric power plants:

Bajina Bašta HPPs:

- **Bajina Bašta HPP**
- **Bajina Bašta PSHPP**
- **Vrelo SHPP**

Zvornik HPPs:

- **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 2017 are shown in Table 109.

Table 109

DRINSKO-LIMSKE HPPs BRANCH			
Overview and Status of Permits in 2017			
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 HPP			
Bajina Bašta PSHPP	Location requirements for upgrading the supporting structure to expand the distribution system of Bajina Bašta PSHPP, No. ROP MSGI-19026-LOC-1/2017 dated 08.09.2017 issued by the Ministry of Construction, Transport and Infrastructure. Confirmation of registration on beginning the construction of a local water supply system with pump station and reservoir, No. ROP BBA-14097-	Request for the project revision "Expansion of the Distribution System of Bajina Bašta PSHPP" sent to the Ministry of Construction, Transport and Infrastructure. Developing an urban planning project for upgrading and reconstruction works for the equipment installation of static frequency converter to run the	-

	WA-4/2017 dated 12.06.2017, issued by the Municipality of Bajina Bašta, Department of urban planning, construction and property - legal jobs.	generator in pumping mode in Bajina Bašta PSHPP, in the process of obtaining building permits.	
Vrelo SHPP			
ELEKTROMORAVA HPPs			
Ovčar Banja HPP	Decision on the use permit for works on reconstruction of the existing overhead transmission line 35kV Ovčar Banja-Međuvršje, No.: 6.09.02.2-E.02.04-651188/1-2017 dated 25.12.2017	No new applications	-
Međuvršje HPP			
ZVORNIK HPPs			
Zvornik HPP	Decision on issuing a water permit, No.: 325-04-00271/2017-07 dated 04.07.2017	No new applications	The permit is issued for the period up to 31.12.2020
Radaljska Banja SHPP			
LIMSKE HPPs			
Kokin Brod HPP	Decision on issuing a water permit, No.: 325-04-00291/2017-07 dated 19.04.2017	No new applications	The permit is issued for a period of 15 years.
Uvac HPP	Decision on issuing a water permit, No.: 325-04-00288/2017-07 dated 19.04.2017	No new applications	The permit is issued for a period of 15 years.
Bistrica HPP	Decision on issuing a water permit, No.: 325-04-00289/2017-07 dated 19.04.2017	No new applications	The permit is issued for a period of 15 years.
Potpeć HPP	Decision on issuing a water permit, No.: 325-04-00290/2017-07 dated 19.04.2017 and 19.06.2017	No new applications	The permit is issued for a period of 15 years.
Miscellaneous	Decision on legalization – The garage on the cadastral plot no. 907/9 KO Akmačići, No.: 351-165/2017-06 dated 03.08.2017	No new applications	-

7.2. Monitoring and Environmental Impact

In 2017 Drinsko - Limske HPPs Branch had the second control audit according to the requirements of the ISO standard 14001: 2004. The control audit was performed on 8th December 2017. The results have shown that Drinsko – Limske HPPs Branch continuously maintain and improve their integrated management system in accordance with the ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 standards' requirements.

In the period 4th - 6th December 2017, Drinsko – Limske HPPs Branch successfully implemented recertification of the information security management system in accordance with the requirements of ISO/IEC 27001:2013. The successful verification was performed by SGS (*Systems & Services Certification Zurich - Switzerland*).

7.2.1. Identified negative impacts on the flow and ecological system below the accumulation

The identified negative impacts in the flows below the dams are mainly twofold: with very low water levels (low flow) caused by annual climate - meteorological conditions and otherwise, during very large inflows the higher efficiency is achieved by hydropower transfer through the planning of electricity production with the greatest degree of utilization.

7.2.2 Water

- **Water amounts**

Water used for hydropower generation, process and sanitary water did not exceed the permitted amounts. Amounts of permitted and used water for electricity generation, as well as discharged water amounts after electricity generation in 2017 are provided in Table 110.

Table 110

DRINSKO – LIMSKE HPPs BRANCH							
Water amounts in 2017							
Organisational unit		**Number of generators**	**Permitted water amounts (installed discharge per generator) m^3/s**	**Discharged water amounts**			
				Water used for electricity generation in 2017 $m^3/year \times 10^6$	**Process water $m^3/year \times 10^6$**	**Sanitary water $m^3/year \times 10^3$**	**Total discharged water $m^3/year \times 10^6$**
BAJINA BAŠTA HPP		4	175	7.302,160	-	75,341	7.784,421
BAJINA BAŠTA PSHPP		2	55	482,185	-	-	-
Vrelo SHPP		1	0,75	0,500	-	-	0,50
ZVORNIK HPP		1	170	8.420,900	1,235	2,000	8.422,137
		2	150				
Radaljska Banja SHPP		1	0,4	1,612	-	-	1,612
ЕЛЕКТРОМОРАВА HPP	**Međuvršje HPP**	3	I-19,5 II-30 III-3,75	699,368	0,010	0,700	699,379
	Ovčar Banja HPP	2	I-19,5 II-30	647,509	0,005	0,500	647,515
LIMSKE HPPs	**Uvac HPP**	1	43,000	193,000	0,230	0,100	193,230
	Kokin Brod HPP	2	18,700	358,000	1,319	0,100	359,319
	Bistrica HPP	2	18,000	394,000	2,297	0,100	396,297
	Potpeć HPP	3	55,000	1.813,000	4,043	0,100	1.817,043

- **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 2017 conducted the sampling of waste and surface waters from all power plants operated by the Drinsko – Limske HPPs Branch.

The sampling was made for two quarters of 2017. The following number of samples was taken: Bajina Bašta HPP 7 samples, Limske HPPs 8 samples, Elektromorava HPP 4 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 111.

Table 111

DRINSKO – LIMSKE HPPs BRANCH																
Water quality in 2017																
Organisational unit	**Testing parameters** (unit)	**Wastewater and surface water quality testing results for 2017**														
		1st quarter			**2nd quarter**			**3rd quarter**			**4th quarter**			**Referential values**	**Test results comment and 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)	
		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			
BAJINA BAŠTA HPP	MPN coliform bacteria (E. coli/1l)	-	$9,6x10^2$	$2,4x10^3$	-	-	-	-	-	-	-	$4,3x10^3$	$5,8x10^2$	.	The Drina River belongs to Class II. The tested parameters **meet** the values defined by the Regulation.	
	Dissolved O_2 (mg/l)	8,20	9,92	9,85	-	-	-	-	-	-	4,38	7,58	7,91	min. 7,0		
	Suspended substances (mg/l)	6	>1	>1	-	-	-	-	-	-	**25,2**	>1	>1	25		
	COD (mg/l)	**19,5**	15	14,4	-	-	-	-	-	-	4,4	>4	>4	15		
	BOD_5 (mg/l)	4	1,8	1,5	-	-	-	-	-	-	2,3	1,0	1,2	5		
	pH value	7,98	8,00	8,01	-	-	-	-	-	-	7,85	7,99	7,98	6,8-8,5		
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-			
ZVORNIK HPP	MPN coliform bacteria (E. coli/1l)	-	$3,5x10^3$	$2,8x10^4$	-	-	-	-	-	-	-	$4,2x10^4$	$1,5x10^3$		The Drina River belongs to Class II. The tested parameters **meet** the values defined by the Regulation.	
	Dissolved O_2	-	10,17	10,05	-	-	-	-	-	-	-	7,77	7,80	min. 7,0		

	(mg/l)													
	Suspended substances (mg/l)	-	>1	>1	-	-	-	-	-	-	-	14	19,1	25	
	COD (mg/l)	-	13,7	2,5	-	-	-	-	-	-	-	>4	>4	15	
	BOD_5 (mg/l)	-	1,3	2,0	-	-	-	-	-	-	-	1,0	0,9	5	
	pH value	-	8,03	8,08	-	-	-	-	-	-	-	8,05	8,09	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-		
OVČAR BANJA HPP	MPN coliform bacteria (E. coli/1l)	-	1,5 x10^4	3,8 x10^4	-	-	-	-	-	-	-	1,6x10^4	3,5x10^4		The River of Zapadna Morava belongs to Class II. The tested parameter of **COD does not meet** the values defined by the Regulation.
	Dissolved O_2 (mg/l)	-	9,59	9,61	-	-	-	-	-	-	-	9,44	9,45	min. 7,0	
	Suspended substances (mg/l)	-	>1	>1	-	-	-	-	-	-	-	6,,0	2,6	25	
	COD (mg/l)	-	**20,9**	**17,8**	-	-	-	-	-	-	-	**19,3**	**19**	15	
	BOD_5 (mg/l)	-	2,1	2,5	-	-	-	-	-	-	-	1,3	1,9	5	
	pH value	-	8,01	7,94	-	-	-	-	-	-	-	7,98	7,92	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-		
MEĐUVRŠJE HPP	MPN coliform bacteria (E. coli/1l)	-	2,6 x10^4	1,2 x10^4	-	-	-	-	-	-	-	6,9x10^3	1,3x10^4		
	Dissolved O_2 (mg/l)	-	9,50	9,89	-	-	-	-	-	-	-	9,43	9,36	min. 7,0	
	Suspended substances (mg/l)	-	>1	>1	-	-	-	-	-	-	-	1,6	2	25	

MEĐUVRŠJE HPP	COD (mg/l)	-	**17,6**	**18,3**	-	-	-	-	-	-	-	**16,3**	**20,3**	15	The River of Zapadna Morava belongs to Class II. The tested parameter of **COD does not meet** the values defined by the Regulation.
	BOD_5 (mg/l)	-	2,0	2,44	-	-	-	-	-	-	-	1,7	1,3	5	
	pH value	-	7,95	7,91	-	-	-	-	-	-	-	7,91	7,91	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-		
UVAC HPP	MPN coliform bacteria (E. coli/1l)	-	$3,6x10^2$	$2x10^3$	-	-	-	-	-	-	-	$5,7x10^2$	$1x10^2$		The Uvac River belongs to Class II. The tested parameter of **COD** upstream **does not meet** the values defined by the Regulation.
	Dissolved O_2 (mg/l)	-	8,8	9,03	-	-	-	-	-	-	-	7,86	8,12	min. 7,0	
	Suspended substances (mg/l)	-	>1	>1	-	-	-	-	-	-	-	3,2	5,7	25	
	COD (mg/l)	-	**20,5**	**17,6**	-	-	-	-	-	-	-	**54,3**	>4	15	
	BOD_5 (mg/l)	-	1,2	1,5	-	-	-	-	-	-	-	1,9	0,9	5	
	pH value	-	7,87	7,81	-	-	-	-	-	-	-	8,09	7,82	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-		
KOKIN BROD HPP	MPN coliform bacteria (E. coli/1l)	-	60	$2x10^3$	-	-	-	-	-	-	-	$2,7x10^2$	$1,9x10^2$		The Uvac River belongs to Class II. The tested parameter of **COD does not meet** the values defined by the Regulation.
	Dissolved O_2 (mg/l)	-	9,63	9,60	-	-	-	-	-	-	-	8,31	7,94	min. 7,0	
	Suspended substances (mg/l)	-	>1	>1	-	-	-	-	-	-	-	4,5	>1	25	
	COD (mg/l)	-	**18,3**	**18,1**	-	-	-	-	-	-	-	>4	>4	15	
	BOD_5 (mg/l)	-	1,6	2,2	-	-	-	-	-	-	-	0,9	0,7	5	
	pH value	-	7,96	8,01	-	-	-	-	-	-	-	8,11	7,64	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-		

BISTRICA HPP	MPN coliform bacteria (E. coli/1l)	-	$4,2x10^3$	$4,3x10^3$	-	-	-	-	-	-	-	$5,3x10^2$	$1,3x10^2$		The Uvac River belongs to Class II. The tested parameter of **COD does not meet** the values defined by the Regulation.
	Dissolved O_2 (mg/l)	-	8,61	9,00	-	-	-	-	-	-	-	7,25	7,09	min. 7,0	
	Suspended substances (mg/l)	-	>1	>1	-	-	-	-	-	-	-	>1	2,8	25	
	COD (mg/l)	-	**20,2**	**19,0**	-	-	-	-	-	-	-	**17,6**	>4	15	
	BOD_5 (mg/l)	-	1,1	1,0	-	-	-	-	-	-	-	0,9	1,0	5	
	pH value	-	7,82	7,73	-	-	-	-	-	-	-	7,7	7,68	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-		
POTPEĆ HPP	MPN coliform bacteria (E. coli/1l)	-	$1,2x10^4$	$1,3x10^4$	-	-	-	-	-	-	-	$6,6x10^3$	$6,5x10^3$		The Lim River belongs to Class II. The tested parameter of **COD does not meet** the values defined by the Regulation.
	Dissolved O_2 (mg/l)	-	9,6	9,58	-	-	-	-	-	-	-	8,13	7,69	min. 7,0	
	Suspended substances (mg/l)	-	>1	>1	-	-	-	-	-	-	-	2,5	3,3	25	
	COD (mg/l)	-	**21,7**	**18,4**	-	-	-	-	-	-	-	>4	>4	15	
	BOD_5 (mg/l)	-	1,9	1,9	-	-	-	-	-	-	-	1,8	1,4	5	
	pH value	-	7,95	7,99	-	-	-	-	-	-	-	7,94	7,8	6,8-8,5	
	Total oil and grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-		

Water quality control for Vrelo SHPP and Radaljska Banja SHPP has not been 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 revitalization of the Zvornik HPP during 2017, large amount of waste was generated.

The generated waste in 2017 is shown in the Table 112.

Table 112

DRINSKO – LIMSKE HPPs BRANCH									
Generated waste in 2017									
No.	**Official nomenclature of the Rules defining waste categories, its testing and classification OG RS № 56/10 dated 10.08.2010.**		**Unit (t)**	**Organizational unit**				**Total**	**Note**
				Bajina Bašta HPP and PSHPP	**Limske HPPs**	**Elektromorava HPP**	**Zvornik HPP**		
	Name	**Code**		**A m o u n t s**					
1.	Waste printing toners other than specified in 08 03 17	08 03 18	t	0,058	0,000	0,000	0,000	**0,058**	Cartridges
2.	Mineral non-chlorinated hydraulic oils	13 01 10*	t	0,000	0,000	0,342	13,340	**13,682**	Turbine oil
3.	Mineral non-chlorinated oils for insulation and heat transfer	13 03 07*	t	9,920	0,000	1,525	7,780	**19,225**	Transformer oil
4.	Waste not otherwise specified	13 08 99*	t	1,100	0,000	0,452	0,000	**1,552**	Waste mixed oil
5.	Waste tires	16 01 03	t	0,740	0,319	0,009	0,000	**1,068**	Car tires
6.	Discarded equipment other than specified from 16 02 09 to 16 02 13	16 02 14	t	0,000	0,000	2,000	0,000	**2,000**	Electrical equipment
7.	Components removed from discarded equipment other than specified in 16 02 15	16 02 16	t	0,000	0,000	0,000	112,260	**112,260**	Stator of generator, rotor poles
8.	Lead batteries	16 06 01*	t	2,020	3,960	0,000	0,000	**5,980**	Acu- batteries
9.	Particularly collected electrolyte from batteries and accumulators	16 06 06*	t	0,177	0,000	0,000	0,000	**0,177**	Acu-acid
10.	Copper, bronze, brass	17 04 01	t	0,000	0,030	0,000	8,140	**8,170**	Copper, brass
11.	Iron and steel	17 04 05	t	90,640	18,280	4,060	500,060	**613,040**	Steel
12.	Mixed metals	17 04 07	t	5,900	0,000	0,000	16,570	**22,470**	Sheet metal, white metal
13.	Cables other than those specified in 17 04 10	17 04 11	t	0,000	0,000	0,000	2,000	**2,000**	Cables

14.	Fluorescent tubes and other waste containing mercury	20 01 21*	t	0,140	0,080	0,060	0,060	**0,340**	Fluorescent tubes
15.	Discarded electrical and electronic equipment containing hazardous components other than specified in 20 01 21 and 20 01 23	20 01 35*	t	0,182	0,080	0,008	0,154	**0,424**	Electronic hazardous waste

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. 98/10* dated 24.12.2010); Regulation on waste oils management methods (*"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 is 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 2017 is shown in the Table 113.

Table 113

DRINSKO – LIMSKE HPPs BRANCH									
Collected waste (delivered/sold) in 2017									
No.	**Official nomenclature of the Regulation defining waste categories, its testing and classification OG RS № 56/10 dated 10.08.2010.**		**Unit (t)**	**Organizational unit**				**Total**	**Note**
				Bajina Bašta HPP and PSHPP	**Limske HPPs**	**Elektromorava HPP**	**Zvornik HPP**		
	Name	**Code**		**A m o u n t s**					
1.	Waste printing toners other than specified in 08 03 17	08 03 18	t	0,138	0,017	0,01	0,040	**0,205**	Cartridges
2.	Mineral non-chlorinated hydraulic oils	13 01 10*	t	0,000	0,000	0,342	13,340	**13,682**	Turbine oil
3.	Mineral non-chlorinated oils for insulation and heat transfer	13 03 07*	t	9,920	0,000	1,525	7,780	**19,225**	Transformer oil
4.	Waste not otherwise specified	13 08 99*	t	1,100	0,000	0,452	0,000	**1,552**	Waste mixed oil

5.	Absorbent, wiping cloths contaminated by hazardous substances	15 02 02*	t	0,589	0,000	0,000	0,000	**0,589**	Oily wiping clothes
6.	Waste tires	16 01 03	t	0,740	0,94	0,200		**1,880**	Car tires
7.	Discarded equipment other than specified from 16 02 09 to 16 02 13	16 02 14	t	0,000	0,000	2,000		**2,000**	Electrical equipment
8.	Components removed from discarded equipment other than specified in 16 02 15	16 02 16	t	0,000	0,000	0,000	112,260	**112,260**	Stator of generator, rotor poles
9.	Organic waste containing hazardous substances	16 03 05*	t	1,500	0,000	0,000	0,000	**1,500**	Various resins
10.	Lead batteries	16 06 01*	t	2,320	3,960	0,000	0,000	**6,280**	Acu-batteries
11.	Particularly collected electrolyte from batteries and accumulators	16 06 06*	t	0,177	0,000	0,000	0,000	**0,177**	Acu-acid
12.	Copper, bronze, brass	17 04 01	t	0,000	0,680	0,000	8,140	**8,820**	Copper, brass
13.	Iron and steel	17 04 05	t	90,640	43,780	4,060	500,006	**638,540**	Iron
14.	Mixed metals	17 04 07	t	5,900	0,000	0,000	16,570	**22,470**	Sheet metal, white metal
15.	Cables other than those specified in 17 04 10	17 04 11	t	0,000	0,000	0,000	2,000	**2,000**	Cables
16.	Fluorescent tubes and other waste containing mercury	20 01 21*	t	0,140	0,080	0,060	0,060	**0,340**	Fluorescent tubes
17.	Discarded electrical and electronic equipment containing hazardous components other than specified in 20 01 21 and 20 01 23	20 01 35*	t	0,182	0,080	0,008	0,154	**0,424**	Electronic hazardous waste

7.2.4. Environmental Noise Measurements

Environmental noise measurements nearby the electric power facilities were not performed in 2017, 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 2017 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. In 2017, no testings nor measurements in the working environments were performed. Measurements are carried out each three years. Next measurement is planned for 2018.

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 114.

Table 114

DRINSKO – LIMSKE HPPs BRANCH					
Employee Training in 2017					
Organizational Unit	**Number of employees**	**For training**		**Trained**	
		Number	**%**	**Number**	**%**
Bajina Bašta HPP **Bajina Bašta PSHPP**	206	77	37,38	104	135,06
Elektromorava HPP	49	11	22,45	11	100
Zvornik HPP	61	33	54,1	51	154,55
Limske HPP	125	35	28	37	105,71
TOTAL: **DRINSKO – LIMSKE HPPs BRANCH**	**441**	**156**	**35,37**	**203**	**130,13**

Furthermore, the following training courses were organised: training for safe forklift handling, for safe handling with the load-lifting equipment and cargo-carrying signaling. Trainings of management personnel were performed related to application of preventive measures during planning, preparation and implementation of works by implementing groups, as well as introducing to basic dangers and hazards in electricity generation proceedings. Besides, individual trainings for preparation of training programs and plans were performed in accordance with the legislation as presented in Table 115 below:

Table 115

DRINSKO – LIMSKE HPPs BRANCH			
Other trainings in 2017			
№	**Type of training**	**Number of persons**	**Note**
1.	Introducing the contractors with the dangers and hazards, OSH measures and rules of conduct	375	-
2.	Training for safe forklift handling	5	-

3.	Training for safe handling with the load-lifting equipment and cargo-carrying signaling	23	-
4.	Obligation of the management personnel related to application of preventive OSH measures	5	-
5.	Introducing the students and pupils at practice with OSH measures and rules of conduct	31	-
6.	Introducing the visitors and service providers with OSH measures and rules of conduct	259	-

- **Occupational injuries**

Table 116 provides number data occupational injuries in 2017, with remark that out of 5 recorded injuries in total only 1 light injury occurred during the working process while the others occurred on the way from home to work and in the car accident.

Table 116

DRINSKO – LIMSKE HPPs BRANCH						
Occupational injuries in 2017						
Organisational unit	Number of employees	Injuries in relation to the number of employees				
		Light	Severe	Fatal	Total	%
Bajina Bašta HPP Bajina Bašta PSHPP	206	2	1	0	3	1,46
Elektromorava HPP	49	0	0	0	0	0,00
Zvornik HPP	61	2	0	0	2	3,28
Limske HPP	125	0	0	0	0	0,00
TOTAL: DRINSKO – LIMSKE HPPs BRANCH	**441**	**4**	**1**	**0**	**5**	**1,13**

7.3.3. Health Protection

Medical examinations results are provided in Table 117.

Table 117

DRINSKO – LIMSKE HPPs BRANCH											
Work ability and Health of employees in 2017											
Organisational unit	Number of employees	Periodical examination				Work capability					
		For medical examination		Examined		Capable		Limited capability		Not capable	
		Number	%	Number	%	Number	%	Number	%	Number	%
Bajina Bašta HPP Bajina Bašta PSHPP	206	74	35,92	73	98,65	72	98,63	0	0,00	1	1,37
Elektromorava HPP	49	7	14,29	7	100	7	100	0	0,00	0	0,00
Zvornik HPP	61	34	55,74	34	100	29	85,29	3	8,82	2	5,88
Limske HPP	125	42	33,6	37	88,1	34	91,89	3	8,11	0	0,00
TOTAL: DRINSKO – LIMSKE HPPs BRANCH	**441**	**157**	**35,60**	**151**	**96,18**	**142**	**94,04**	**6**	**3,97**	**3**	**1,99**

7.4. Public complaints

With no public complaints in 2017.

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 SHPP**
- **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 2017, the reconstruction of Turica SHPP, Seljašnica SHPP and Kratovska reka SHPP was started, and the reconstruction works are in progress. As for the plans and current situation, the reconstruction of other small hydropower plants with major project and concept design will be executed. The Building Permit Project (BPP) was completed for Pod Gradom SHPP, while BPP for Moravica SHPP and Sićevo SHPP are being developed.

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 below 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, the aim is to utilize the transfer of hydro power energy with higher efficiency through the planning of electricity production.

8.2.2. Water

- **Water amounts**

The use of waters for the hydroelectricity production, process water and sanitary water was performed in the permissible quantities. The permissible quantities and consumed water for the production of electricity as well as the amounts of discharged water after the electricity generated for 2017 are given in Table 118.

The data that does not exist in the table for impossible to measure them or lack of measuring instruments on the specified hydropower plants.

Table 118

RENEWABLE ENERGY SOURCES BRANCH						
Water amounts in 2017						
Organisational unit	**Number of units**	**Permitted water amounts (installed discharge per unit) m^3/s**	**Discharged water amounts**			
			Water used for electricity generation in 2017 $m^3/y \times 10^6$	**Process water $m^3/y \times 10^6$**	**Sanitary water $m^3/y \times 10^3$**	**Total discharged water $m^3/y \times 10^6$**
Raška SHPP	6.256	4,5	-	-	-	-
Seljašnica SHPP	**In reconstruction**					
Moravica SHPP	160	2,50	**Out of service until as per BPP the permission is obtained**			
Turica SHPP	**In reconstruction**					
Pod Gradom SHPP	364	2,30	**Out of service until as per BPP the permission is obtained**			
Kratovska reka SHPP	**In reconstruction**					
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 2017. SHHPs in the RES Branch for their size and structure are not able to produce waste water.

8.2.3. Waste

During 2017, the works on reconstruction of Seljašnica SHPP and Turica SHPP were carried out, 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 2017, 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 2017 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 2017, as it was done at the end of 2015.

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 2017 were:

- Training of employees for occupational safety and health at work 53

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

- **Occupational injuries**

Table 119 provides the number of occupational injuries in 2017.

Table 119

RENEWABLE ENERGY SOURCES BRANCH						
Occupational injuries in 2017						
Organizational unit	Number of employees	Injuries in relation to the number of employees				
		Light	Severe	Fatal	Total	%
TOTAL: RENEWABLE ENERGY SOURCES BRANCH	53	0	0	0	0	0,00

8.3.3. Health Protection

Table 120 shows the results of medical examinations for the employees:

Table 120

RENEWABLE ENERGY SOURCES BRANCH											
Work ability of the employees in 2017											
Organizational unit	Number of employees	Periodical examination				Work capability					
		For medical examination		Examined		Capable		Limited capability		Not capable	
		Number	%	Number	%	Number	%	Number	%	Number	%
Branch Administration (Management)	5	0	0,00	0	0,00	0	0,00	0	0	0	0
East SHPPs	40	40	100,00	40	100,00	40	100,00	0	0	0	0
West HPPs	8	8	100,00	8	100,00	8	100,00	0	0	0	0
TOTAL: RENEWABLE ENERGY SOURCES BRANCH	**53**	**48**	**90,57**	**48**	**100,00**	**48**	**100,00**	**0**	**0,00**	**0**	**0,00**

8.4. Public complaints

With no public complaints in 2017.

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 2017 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 2017, electromagnetic field measurements were not performed.

9.2.2. Living Environment Noise Measurements

During 2017, 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 2017 was not performed on the territory of TC Beograd.

9.3. Working Environment Monitoring, Health and Safety

- Reports on 2017 Health following items:and Safety include the
- **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 2017.

- **Working environment electromagnetic fields**

Working environment electromagnetic fiels measurements were not performed in 2017.

- **Working environment parameters**

Noise, illumination, microclimate and chemical hazards in the workplace and in the work environment were tested In 2017, which is shown in Tables 121, 122, 123 and 124.

Table 121

TECHNICAL CENTER BEOGRAD			
Noise in working environment for 2017			
Organizational unit	**Sub-branch**	**Registered noise level (dB(A))**	**Allowed noise level (dB(A))**
Sector for techinal services Beograd Centar	**Beograd – Toplice Milana bb.**		
	Small car workshop	75,60	85
	Large vehicles workshop	79,80	85
	Knezopoljska 4		
	Car workshop	77,30	85
Sector for techinal services Zemun	**Zemun – Djacka 1**		
	Workshop	72,90	85
Sector for techinal services Mladenovac	**Sopot - Milosava Vlajica 22**		
	Counter hall	68,30	85
	Locksmith workshop	83,20	85
	Mechanical workshop	85,60	85
	Car wash	88,40	
	Grocka - Narodnih Heroja 1		
	Office no.16	61,20	85
	Office no. 12	59,10	85
	Office no. 8	59,10	85
	Office no. 5	58,50	85
	Office no. 3	65,60	85
	Barajevo - Miodraga Vukovica 26		
	Dispatch office	65,20	85
	Counter hall	67,50	85
	Office no.7	63,30	85
	Office no.9	64,00	85
	Office no.11a	57,40	85
	Office no.15	60,10	85
Technical center HQ Masarikova	**Centar Beograd - Masarikova 1 - 3**		
	Office no. 801	61,10	85
	Office no.805	62,30	85
	Office no.720	57,90	85
	Office no.719	60,30	85
	Office no.715	59,50	85
	Office no.713	62,90	85
	Office no.711	60,80	85
	Office no.705	63,40	85
	Office no.703	61,00	85
	Office no.602	62,10	85
	Office no.603	59,60	85
	Office no.605	62,30	85
	Office no.609	59,10	85
	Office no.607a	60,80	85
	Office no.502	64,10	85
	Office no.503	60,50	85
	Office no.507	62,90	85

	Office no.403	66,40	85
	Office no.405	60,50	85
	Office no.409	60,70	85
	Office no.411	61,40	85
	Office no.413	60,40	85
	Office no.304a	61,80	85
	Office no.305/2	66,70	85
	Office no.305/1	58,60	85
	Office no.305	64,20	85
	Office no.203	64,00	85
	Office no.206	63,50	85
	Office no.205	65,50	85
	Office no. 104	60,80	85
	Office no. 106	65,30	85
	Office no. 109	62,50	85
	Office no. M3	57,90	85
	Office no. M6	65,10	85
	Office no. M8	63,20	85
	Office no. M10	66,40	85
	Clerk's office	69,20	85
	Clerk's office 2	59,90	85
	Room no. 31	65,00	85
	Counter hall	72,40	85

Table 122

TECHNICAL CENTER BEOGRAD			
Illumination in working environment for 2017			
Organizational unit	**Sub-branch**	**Average (Lx)**	**Minimum Allowed (Lx)**
Sector for techinal services Beograd Centar	**Beograd - Toplice Milana bb.**		
	Small car workshop	808	150
	Large vehicles workshop	152	150
	Warehouse- warehouse area	123	80
	Warehouse - office	163	150
	Knezopoljska 4		
	Car workshop	236	150
Sector for techinal services Zemun	**Zemun- Djacka 1**		
	Office no. M1	660	150
	Office no. M2	310	150
	Office no. M3	457	150
	Office no.C5	180	150
	Workshop	352	150
Sector for techinal services Mladenovac	**Sopot - Milosava Vlajica 22**		
	Office no. 1	280	150
	Office no. 4	356	150
	Office no. 6	311	150
	Counter hall	258	150
	Warehouse	86	80
	Locksmith workshop	476	150
	Mechanical workshop	733	150
	Car wash	1086	150
	Office no. 9	280	150
	Office no. 12	206	150
	Office no. 14	780	150
	Office no. 16	215	150
	Office no. 19	302	150
	Grocka - Narodnih Heroja 1		
	Office no. 1	394	150
	Office no. 10	251	150

	Office no.16	340	150
	Office no. 14	280	150
	Office no. 12	362	150
	Office no. 8	320	150
	Office no. 5	294	150
	Office no. 3	303	150
	Office no. 2	269	150
	Warehouse	52	80
	Room for workers' stay	117	80
	Barajevo - Miodraga Vukovica 26		
	Dispatch office	557	150
	Office - drafting authority	306	150
	Counter hall	387	300
	Equipment warehouse	374	150
	Office no.12	352	150
	Office no.7	330	150
	Office no.9	380	150
	Office no.11a	427	150
	Room for electrical fitters	223	80
	Office no.15	230	150
Technical center HQ Masarikova	**Centar Beograd - Masarikova 1 - 3**		
	Office no. 801	404	150
	Office no.805	662	150
	Office no. 726	803	150
	Office no. 723	630	150
	Office no. 721	456	150
	Office no.720	673	150
	Office no.719	1042	150
	Office no. 717	1270	150
	Office no.715	1030	150
	Office no.713	543	150
	Office no.711	376	150
	Office no. 709	687	150
	Office no.705	382	150
	Office no.703	642	150
	Office no. 702	560	150
	Office no. 701	820	150
	Office no. 611	663	150
	Office no.602	890	150
	Office no.603	392	150
	Office no. 610	611	150
	Office no.605	425	150
	Office no. 608	660	150
	Office no.609	874	150
	Office no.607a	440	150
	Office no. 501a	540	150
	Office no.502	694	150
	Office no.503	670	150
	Office no. 510	790	300
	Office no. 508	538	150
	Office no. 506	893	150
	Office no.507	540	150
	Office no. 402	407	150
	Office no.403	540	150
	Office no.405	350	150
	Office no. 407	723	150
	Office no.409	305	150
	Office no. 414	311	150
	Office no.411	395	150
	Office no.413	401	150

	Office no. 301	320	150
	Office no.304a	303	150
	Office no. 306	257	150
	Office no.305/2	509	150
	Office no.305/1	328	150
	Office no.305	723	150
	Office no. 201	360	150
	Office no.203	520	150
	Office no.206	850	150
	Office no.205	1576	150
	Office no. 101	254	150
	Office no. 104	1390	150
	Office no. 106	856	150
	Office no. 107	723	150
	Office no. 107a	305	150
	Office no. 111	421	150
	Office no. 109	673	150
	Office no. M3	640	150
	Office no. M1	201	150
	Office no. M6	574	150
	Office no. M8	369	150
	Office no. M10	278	150
	Office no. M12	161	150
	Clerk's office	580	150
	Clerk's office 2	211	150
	Room no. 31	204	150
	Counter hall	315	300

Table 123

TECHNICAL CENTER BEOGRAD				
Microclimate in working environment for 2017				
Organizational unit	**Sub-branch**	**Air temperature (C) Allowed (15-28)**	**Relative air humidity(%) Allowed (max. 75)**	**Air flow speed (m/s) Allowed (max. 0,5)**
Sector for techinal services Beograd Centar	**Beograd - Toplice Milana bb.**			
	Small car workshop	17,6	26,7	0,13
	Large vehicles workshop	15,9	30,00	0,17
	Warehouse- warehouse area	11,00	37,7	0,10
	Warehouse - office	19,5	32,3	0,04
	Knezopoljska 4			
	Car workshop	17,4	37,9	0,08
Sector for techinal services Zemun	**Zemun- Djacka 1**			
	Office no. M1	22,3	32,5	0,08
	Office no. M2	22,0	28,6	0,05
	Office no. M3	21,3	28,4	0,07
	Office no.C5	21,0	29,0	0,03
	Workshop	15,8	34,3	0,09
Sector for techinal services Mladenovac	**Sopot - Milosava Vlajica 22**			
	Office no. 1	24,0	28,9	0,07
	Office no. 4	25,0	25,9	0,05
	Office no. 6	23,8	31,0	0,10
	Counter hall	24,1	28,9	0,12
	Warehouse	21,6	28,6	0,10
	Locksmith workshop	24,4	27,6	0,13
	Mechanical workshop	11,2	30,9	0,16
	Car wash	10,9	29,9	0,11

	Office no. 9	23,9	27,5	0,05
	Office no. 12	24,7	25,6	0,03
	Office no. 14	25,0	26,9	0,08
	Office no. 16	24,3	25,2	0,04
	Office no. 19	24,9	25,6	0,03
	Grocka - Narodnih Heroja 1			
	Office no. 1	22,5	29,1	0,06
	Office no. 10	21,5	28,5	0,04
	Office no.16	23,8	29,0	0,03
	Office no. 14	23,7	27,7	0,06
	Office no. 12	23,9	25,8	0,03
	Office no. 8	23,4	28,9	0,05
	Office no. 5	20,0	30,9	0,08
	Office no. 3	24,5	28,6	0,05
	Office no. 2	24,9	27,8	0,08
	Warehouse	10,2	34,3	0,10
	Room for workers' stay	21,9	35,8	0,08
	Barajevo - Miodraga Vukovica 26			
	Dispatch office	23,1	33,5	0,08
	Office - drafting authority	22,3	29,7	0,04
	Counter hall	22,8	29,1	0,10
	Equipment warehouse	21,6	28,8	0,07
	Office no.12	22,0	26,4	0,05
	Office no.7	21,3	25,5	0,09
	Office no.9	22,2	28,3	0,04
	Office no.11a	23,1	27,0	0,05
	Room for electrical fitters	22,8	25,9	0,11
	Office no.15	23,9	26,9	0,04
Technical center HQ Masarikova	**Centar Beograd - Masarikova 1 - 3**			
	Office no. 801	22,1	28,7	0,06
	Office no.805	22,2	23,3	0,04
	Office no. 726	23,8	34,7	0,08
	Office no. 723	23,6	29,7	0,05
	Office no. 721	23,7	26,6	0,07
	Office no.720	24,7	27,2	0,10
	Office no.719	24,0	29,7	0,07
	Office no. 717	25,1	26,8	0,05
	Office no.715	24,4	24,6	0,06
	Office no.713	24,7	34,9	0,09
	Office no.711	24,4	28,5	0,04
	Office no. 709	24,7	29,1	0,08
	Office no.705	24,0	27,3	0,05
	Office no.703	23,9	24,8	0,07
	Office no. 702	24,9	25,0	0,05
	Office no. 701	23,2	25,5	0,08
	Office no. 611	24,2	26,9	0,06
	Office no.602	22,9	24,8	0,09
	Office no.603	23,9	25,2	0,06
	Office no. 610	24,7	26,0	0,04
	Office no.605	23,3	27,1	0,07
	Office no. 608	23,0	29,2	0,05
	Office no.609	25,7	26,2	0,11
	Office no.607a	24,5	27,5	0,03
	Office no. 501a	25,6	28,5	0,08
	Office no.502	26,1	27,8	0,06
	Office no.503	24,9	26,3	0,03
	Office no. 510	25,9	30,1	0,07
	Office no. 508	24,7	26,9	0,12

	Office no. 506	25,1	27,7	0,10
	Office no.507	25,0	25,8	0,08
	Office no. 402	24,0	25,6	0,05
	Office no.403	26,0	27,4	0,09
	Office no.405	24,8	25,7	0,13
	Office no. 407	24,4	25,2	0,07
	Office no.409	23,2	25,0	0,09
	Office no. 414	23,5	25,1	0,05
	Office no.411	23,9	25,7	0,03
	Office no.413	24,4	26,2	0,06
	Office no. 301	25,6	27,1	0,07
	Office no.304a	25,3	26,8	0,04
	Office no. 306	24,9	25,1	0,06
	Office no.305/2	25,3	27,8	0,03
	Office no.305/1	25,4	26,1	0,04
	Office no.305	25,0	27,1	0,08
	Office no. 201	24,8	25,5	0,04
	Office no.203	25,0	26,3	0,07
	Office no.206	24,6	25,9	0,11
	Office no.205	25,5	26,3	0,08
	Office no. 101	23,7	29,9	0,10
	Office no. 104	25,7	26,2	0,07
	Office no. 106	25,7	28,3	0,05
	Office no. 107	24,5	26,9	0,03
	Office no. 107a	25,1	26,4	0,04
	Office no. 111	25,9	25,5	0,08
	Office no. 109	25,1	29,2	0,06
	Office no. M3	25,0	26,5	0,04
	Office no. M1	25,2	27,8	0,03
	Office no. M6	25,0	27,6	0,08
	Office no. M8	25,3	28,5	0,05
	Office no. M10	24,4	26,8	0,07
	Office no. M12	27,5	26,4	0,04
	Clerk's office	24,1	25,6	0,03
	Clerk's office 2	24,1	28,5	0,09
	Room no. 31	22,6	29,2	0,07
	Counter hall	21,8	30,6	0,13

Table 124

TECHNICAL CENTER BEOGRAD				
Chemical hazards in working environment for 2017				
Organizational unit	**Sub-branch**	**Carbon dioxide (mg/m3) Allowed (9000)**	**Carbon monoxide(mg/m3) Allowed (55)**	**Dust (mg/m3) Allowed (10)**
Sector for techinal services Beograd Centar	**Beograd - Toplice Milana bb.**			
	Small car workshop	2.011,9	6,9	-
	Large vehicles workshop	1.652,6	4,4	-
	Knezopoljska 4			
	Car workshop	1.670,6	3,4	-
Sector for techinal services Zemun	**Zemun- Djacka 1**			
	Workshop	-	-	0,7
Sector for techinal services Mladenovac	**Sopot - Milosava Vlajica 22**			
	Locksmith workshop	-	-	1,2
	Mechanical workshop	1.715,5	3,4	-

9.3.2. Protection at work

- **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 2017					
TC Beograd	No. of employees	For training		Trained	
		No	%	No	%
Safe and healthy work of electrical engineering jobs	637	311	48,82	311	100,00

- **Work injuries**

The status of work injuries in 2017 is presented in Table 126.

Table 126

TECHNICAL CENTER BEOGRAD						
Work injuries in 2017						
Sector for technical services/Facility	No. of employees	Injuries – number of employees ratio				
		Light	Serious	Fatalities	Total.	%
STS CENTAR	82	0	1	0	1	1,22
STS BANOVO BRDO	89	4	1	0	5	5,62
STS ZEMUN	88	1	0	0	1	1,14
STS KRNJACA	17	0	0	0	0	0,00
STS MLADENOVAC	53	0	0	0	0	0,00
STS OBRENOVAC	48	1	0	0	1	2,08
HQ	260	5	1	0	6	2,31
TOTAL: TECHNICAL CENTER BEOGRAD	**637**	**11**	**3**	**0**	**14**	**2,20**

9.3.3. Health

Periodical medical examinations of employees are shown in Table 127.

Table 127

TECHNICAL CENTER BEOGRAD											
Working capacity of employees in 2017											
Organizational unit	Number of employees	Periodical examination				Capability for work					
		Referred to examination		Examined / Referred		Capable		Limited capability		Incapable	
		Број	%	Број	%	Број	%	Број	%	Број	%
STS CENTAR	82	82	100,00	82	100,00	80	97,56	2	2,44	0	0,00
STS BANOVO BRDO	89	89	100,00	89	100,00	85	95,51	3	3,37	1	1,12
STS ZEMUN	88	69	78,41	69	100,00	66	95,65	1	1,45	2	2,90
STS KRNJACA	17	15	88,24	15	100,00	14	93,33	0	0	1	6,67

STS MLADENOVAC	53	53	100,00	53	100,00	51	96,23	1	1,89	1	1,89
STS OBRENOVAC	48	48	100,00	48	100,00	47	97,92	0	0	1	2,08
HQ	260	67	25,77	67	100,00	64	95,52	3	4,48	0	0,00
TOTAL: TECHNICAL CENTER BEOGRAD	**637**	**423**	**66,41**	**423**	**100,00**	**407**	**96,22**	**10**	**2,36**	**6**	**1,42**

9.4. Public complaints

There were no public complaints in 2017.

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 2017 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 2017 were not performed in work environment.

10.2.2. Living Environment Noise Measurements

In Table 128 are shown data of measured and relevant living environment noise levels in 2017.

Table 128

TECHNICAL CENTER NOVI SAD						
Living environment noise level in 2017. (dB)(A)						
Limit values of the noise indicators Regulation on Noise Indicators, Limit Values, Methods for Evaluating Indicators of Noise, Disturbance and Harmful Effects of Noise in the Environment, "Official Gazette of RS" no. 75/10			**For day**	**For night**		
	Outdoors	**Areas for rest and recreation, hospital zones and rest areas, cultural and historical sites, large parks**	**50**	**40**		
		Tourist areas, camps and school zones	**50**	**45**		
		Residential areas	**55**	**45**		
		Business – residential areas, commercial – residential areas and children playgrounds.	**60**	**50**		
		City center, craft, commercial, administrative zone with apartments, zone along highways, main roads and city roads.	**65**	**55**		
		Industrial, warehouse and service areas and transport terminals without residential buildings	**At the border of this zone noise must not exceed the limit value in the zone with which it is bounded**			
STS SOMBOR	Noise measurements in the environment were not carried out in 2017.					
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 measurements in the environment were not carried out in 2017.					
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 MITROVICA	Noise measurements in the environment were not carried out in 2017.					
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 measurements in the environment were not carried out in 2017.					
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 RUMA	Noise measurements in the environment were not carried out in 2017					
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 NOVI SAD						
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 PANCEVO						
Measuring points	Bills printing area					

Bills printing area	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	73,6±3.1	85	-	-	-	-
GVI	60					

10.2.3. Waste

Characterization, categorization and partial disposal of waste carried out in 2017 is shown in Table 129.

Table 129

TECHNICAL CENTER NOVI SAD												
Waste in 2017												
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**	**Sector for techinal services**							**TOTAL**	**NOTE**
				SUBOTICA	**SOMBOR**	**ZRENJANIN**	**NOVI SAD**	**SREMSKA MITROVICA**	**RUMA**	**PANCEVO**	**TOTAL TC NOVI SAD**	
					КОЛИЧИНЕ							
1.	Waste toner for printing different from the stated on 08 03 17	08 03 18	t	0,160	0,000	0,000	0,000	0,000	0,000	0,000	**0,160**	Waste toner for printing different from the stated on 08 03 17
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**	Other insulating and heat transfer oils
3.	Other emulsions	13 08 02*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,000**	Other emulsions
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**	Packing containing residues of dangerous substances or contaminated with dangerous substances
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**	Absorbents, filter materials (including oil filters which are not otherwise specified), wiping cloths, protective clothing, contaminated with dangerous substances
6.	Waste tires	16 01 03	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,268**	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**	Waste vehicles that do not contain any liquid or other dangerous substance
8.	Oil filters	16 01 07*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,000**	Oil filters

9.	Ferrous metal	16 01 17	t	2,200	0,000	0,000	0,000	0,000	0,000	0,000	**2,200**	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
12.	Rejected equipment other than 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**	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
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,000**	Measuring cabinets
				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**	Wooden poles with impregnation
20.	Copper, bronze, brass	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
				0,230	0,000	0,000	0,000	0,000	0,000	0,000	**0,230**	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	1,750	0,000	0,000	0,000	0,000	0,000	0,000	**1,750**	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 that 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 2017, is not defined - included in the examinations.

10.3. Working Environment Monitoring, Health and Safety

Reports on 2017 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**

10.3.1. Working environment monitoring

- **Working environment noise measurement**

Working environment noise measurements were not performed in 2017

- **Working environment electromagnetic fields**

Electromagnetic field measurements were not performed in 2017

- **Working environment parameters**

Working environment parameters measurements were not performed in 2017

10.3.2. Safety

- **Training**

Training of employees is presented in the Table 130 bellow.

Table 130

TECHNICAL CENTER NOVI SAD						
Training in 2017						
No.	**Organizational unit**	**Number of employees**	**Planned for training**		**Trained**	
			No.	**%**	**No.**	**%**
	ОТУ СУБОТИЦА					
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	160	33	20,63	33	100,00

	Extraordinary general training due to change of name of workplace		8	5,00	8	100,00
	** Extraordinary general training due to employment		1	0,63	1	100,00
	** Extraordinary 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		4	2,50	4	100,00
	** Extraordinary general OHS training – employment based on the engagement contract. Person in charge for OHS is from Sector for technical services		4	2,50	4	100,00
	****General training – getting visitors and service providers acquainted with OHS measures and rules of conduct		15	9,38	15	100,00
	** 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		0	0,00	0	0,00
2	**STS SOMBOR**	145				
	Regular training „general electrical“ NORCEV 2017		26	17,93	26	100
	Training of employees in the field of OHS based on the engagement contract with Technical Center Novi Sad		0	0,00	0	0,00
3	**STS ZRENJANIN**	131				
	Regular training „general electrical“ NORCEV 2017		47	35,88	47	100,00
	Training for HIAB, cart, fork lifter		0	0,00	0	0,00
	Training for handling LZS when working at heights		0	0,00	0	0,00
	Extraordinary staff training - Leadership		0	0,00	0	0,00
	***** Training - getting to know with dangers and harms of third parties		0	0,00	0	0,00
4	**STS NOVI SAD**	187				
	*Regular training „general electrical“ NORCEV 2017		72	38,50	72	100,00
	** General training OHS – employment, training of		16	8,56	16	100,00

	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					
	** General training OHS – employment.		10	5,35	10	100,00
	** General training OHS – employment under fixed-term contract.		71	37,97	71	100,00
	** Extraordinary general OHS training - engagement contract via Agency. Person in charge for OHS is from Sector for technical services		62	33,16	62	100,00
5	**STS RUMA**	121				
	Regular training „general electrical“ NORCEV 2017		33	27,27	33	100,00
	Emergency training as per new instructions for safe and healty work on overhead lines		0	0,00	0	0,00
	Emergency training "Protective equipment for safe work on loading and unloading on cranes“		0	0,00	0	0,00
6	**STS SREMSKA MITROVICA**	47				
	Regular training „general electrical“ NORCEV 2017		11	23,40	11	100,00
	Training for handling a chainsaw		0	0,00	0	0,00
7	**STS PANCEVO**	147				
	Regular training „general electrical“ NORCEV 2017.		63	42,86	63	100,00
	Emergency training "Safe and healthy work on overhead lines “		0	0,00	0	0,00
	Training of employees in the field of OHS based on the engagement contract with Technical Center Novi Sad		0	0,00	0	0,00
8	**TECHNICAL CENTER NOVI SAD – HQ**	204				
	Regular training „general electrical“ NORCEV 2017		0	0,00	0	0,00
	** 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		17	8,33	17	100,00

	** Extraordinary general OHS training – engagement contract via Agency. Person in charge for OHS is from Sector for technical services		32	15,69	32	100,00
	** General training OHS – employment under fixed-term contract.		14	6,86	14	100,00
TOTAL: TECHNICAL CENTER NOVI SAD		**1.142**	**539**	47,21	539	100,00

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 six groups of employees are trained in one cycle, one group per week (150-180 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.

Theoretical part: includes OHS training, training in fire protection 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.

Practical part: 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 2017 is presented in Table 131.

Table 131

TECHNICAL CENTER NOVI SAD						
Work injuries in 2017						
Organizational unit	**Number of employees**	**Injuries - number of employees ratio**				
		Light	**Serious**	**Fatalities**	**Total.**	**%**
STS Subotica	160	4	1	0	5	3,13
STS Sombor	145	4	0	0	4	2,76
STS Zrenjanin	131	4	0	0	4	3,05
STS Novi Sad	187	12	0	0	12	6,42
STS Ruma	121	9	2	0	11	9,09
STS Sremska Mitrovica	47	2	1	0	3	6,38
STS Pancevo	147	4	0	0	4	2,72
HQ	204	0	0	0	0	0,00
TOTAL: TECHNICAL CENTER NOVI SAD	**1.142**	**39**	**4**	**0**	**43**	**3,77**

10.3.3. Health

Periodic medical examinations of employees are presented in Table 132.

Table 132

TECHNICAL CENTER NOVI SAD											
Working capacity of employees in 2017											
Organizational unit	Number of employees	Periodical examination				Capability for work					
		Referred to examination		Examined		Capable		Limited capability.		Incapable	
		No.	%	No.	%	No.	%	No.	%	No.	%
STS Subotica	160	129	80,63	128	99,22	108	84,38	13	10,16	7	5,47
STS Sombor	145	112	77,24	112	100,00	94	83,93	18	16,07	0	0,00
STS Zrenjanin	131	107	81,68	107	100,00	94	87,85	11	10,28	2	1,87
STS Novi Sad	187	120	64,17	120	100,00	82	68,33	38	31,67	0	0,00
STS Ruma	121	100	82,64	100	100,00	86	86,00	14	14,00	0	0,00
STS Sremska Mitrovica	47	40	85,11	40	100,00	35	87,50	5	12,50	0	0,00
STS Pancevo	147	108	73,47	108	100,00	96	88,89	12	11,11	0	0,00
HQ	204	9	4,41	9	100,00	7	77,78	2	22,22	0	0,00
TOTAL: TECHNICAL CENTER NOVI SAD	**1.142**	**725**	**63,49**	**724**	**99,86**	**602**	**83,15**	**113**	**15,61**	**9**	**1,24**

10.4. Public complaints

There were no public complaints in TC Novi Sad in 2017.

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 2017 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 2017, electromagnetic field measurements were not performed.

11.2.2. Living Environment Noise Measurements

During 2017, living environment noise measurements were not performed.

11.2.3. Waste

The waste generated in 2017 is shown in Table 133.

Table 133

TECHNICAL CENTER KRALJEVO																
Waste in 2017																
No.	**RULEBOOK ON CATEGORIES, TESTING AND CLASSIFICATION OF WASTE The Rulebook was published in the "Official Gazette RS", no. 56/2010 of 10.8.2010. .**	**Index number**	**Unit of measure**	**Organizational unit**												**Note**
				HQ	**Arandjelovac**	**Valjevo**	**Jagodina**	**Kraljevo**	**Krusevac**	**Lazarevac**	**Loznica**	**Novi Pazar**	**Cacak**	**Uzice**	**Sabac**	**TOTAL TC KRALJEVO**	
				QUANTITIES												
1.	Waste tires	16 01 03	t	0,000	0,000	0,039	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,039**	Old car tires
2.	Iron and steel	17 04 05	t	0,000	0,000	0,072	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,072**	Scrap iron
3.	Paper and cardboard	20 01 01	t	0,000	0,000	0,007	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,007**	Old paper and cardboard
4.	Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,0003	0,000	0,000	0,000	0,000	0,000	**0,0003**	GPS Device

Note: All other generated waste is owned by DSO „EPS Distribucija“.

11.2.4. Surface, Ground Waters and Soil Monitoring

Monitoring of surface and groundwater, as well as monitoring of soil in 2017 was not performed on the territory of TC Kraljevo.

11.3. Working Environment Monitoring, Health and Safety

Reports on 2017 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 were not carried out during 2017.

- **Working environment electromagnetic fields**

Electromagnetic field measurements were not carried out during 2017.

- **Working environment parameters**

Working environment parameters measurements were not carried out in 2017.

11.3.2. 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 134 bellow and includes training of newly recruited employees and training of employees with narrow professional occupations.

Table 134

TECHNICAL CENTER KRALJEVO					
Training in 2017					
Organizational unit	**Number of employees**	**For training**		**Trained**	
		No.	**%**	**No.**	**%**
Arandjelovac	71				
Health and Safety training		0	0,00	0	0,00
Valjevo	129				
Health and Safety training		17	13,18	17	100,00
Jagodina	148				
Health and Safety training		142	95,95	142	100,00
Kraljevo	191				

Health and Safety training		0	0,00	0	0,00
Krusevac	148				
Health and Safety training		2	1,35	2	0,00
Lazarevac	107				
Health and Safety training		0	0,00	0	0,00
Loznica	117				
Health and Safety training		7	5,98	7	100,00
Fire protection training		20	17,09	20	100,00
Novi Pazar	44				
Health and Safety training		3	6,82	3	100,00
Getting constractor acquainted with dangers and harmfulness and rules of conduct		7	15,91	7	100,00
Uzice	205				
Health and Safety training		148	72,19	148	100,00
Fire protection training		53	25,85	53	100,00
Cacak	159				
Health and Safety training		159	100,00	159	100,00
Getting visitors acquainted with OHS measures		20	12,58	20	100,00
Getting acquainted students on practice with OHS measures		11	6,92	11	100,00
Getting constractor acquainted with dangers and harmfulness and rules of conduct		75	47,17	75	100,00
Sabac	138				
Health and Safety training		6	4,35	6	100,00
Fire protection training		2	1,45	2	100,00
HQ	123				
Health and Safety training		0	0,00	0	0,00
TOTAL: TECHNICAL CENTER KRALJEVO	**1.580**	**672**	**42,53**	**672**	**100,00**

- **Work injuries**

Data on work injuries in 2017 are given in Table 135

Table 135

TECHNICAL CENTER KRALJEVO						
Work injuries in 2017						
Organizational unit	**Number of employees**	**Injuries - number of employees ratio**				
		Light	**Serious**	**Fatalities**	**Total**	**%**
Arandjelovac	71	0	0	0	0	0,00
Valjevo	129	4	0	1	5	3,88
Jagodina	148	3	0	0	3	2,03
Kraljevo	191	4	0	0	4	2,09
Krusevac	148	5	1	0	6	4,05
Lazarevac	107	4	1	0	5	4,64
Loznica	117	0	0	0	0	0,00
Novi Pazar	44	1	0	0	1	2,27
Uzice	205	4	0	0	4	1,95
Cacak	159	0	2	0	2	1,26
Sabac	138	3	0	0	3	2,17

HQ TC Kraljevo	123	0	0	0	0	0,00
TOTAL: TECHNICAL CENTER KRALJEVO	**1.580**	**28**	**4**	**1**	**33**	**2,09**

During 2017, one injuriy with fatal outbreak occurred in the Technical Center Kraljevo.

On April 3, 2017 around 12:30, Marko Popovic, who was on engagement contract for temporary assignement as a fitter, was mortally wounded. The injury was due to the fall of the pole on which M. Popovic worked.

11.3.3. Health

Data on periodic medical examinations of employees are given in Table 136

Table 136

TECHNICAL CENTER KRALJEVO											
Health in 2017											
Organizational unit	**Number of employees**	**Periodical examination**				**Capability for work**					
		Referred to examination		**Examined/ Referred**		**Capable**		**Limited capability**		**Incapable**	
		Број	**%**	**Број**	**%**	**Број**	**%**	**Број**	**%**	**Број**	**%**
Arandjelovac	71	53	74,65	53	100,00	52	98,11	1	1,89	0	0,00
Valjevo	129	78	60,47	78	100,00	72	92,31	6	7,69	0	0,00
Jagodina	148	110	74,32	110	100,00	98	89,09	9	8,18	3	2,73
Kraljevo	191	122	63,87	122	100,00	120	98,36	2	1,64	0	0,00
Krusevac	148	133	89,86	133	100,00	106	79,70	27	20,30	0	0,00
Lazarevac	107	62	57,94	62	100,00	57	91,94	4	6,45	1	1,61
Loznica	117	88	75,21	88	100,00	86	97,73	2	2,27	0	0,00
Novi Pazar	44	49	111,36	49	100,00	40	81,63	9	18,37	0	0,00
Uzice	205	139	67,80	139	100,00	125	89,93	14	10,07	0	0,00
Cacak	159	101	63,52	100	99,01	99	99,00	1	1,00	0	0,00
Sabac	138	118	85,51	118	100,00	116	98,31	2	1,69	0	0,00
HQ	123	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
TOTAL: TECHNICAL CENTER KRALJEVO	**1.580**	**1.053**	**66,65**	**1.052**	**99,91**	**971**	**92,30**	**77**	**7,32**	**4**	**0,38**

Note: Due to status change of 01.12.2017. 266 employees ftom Technical Center was hired by Branch „EPS Supply“

11.4. Public compolaints

There were no public complaints in TC Kraljevo in 2017.

12. TECHNICAL CENTER KRAGUJEVAC

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

12.1. Overview and status of permits

Overview and status of permits, licences and other necessary approvals in 2017 were not carried out. There were no new applications for permits.

12.2. Monitoring and Environmental Impact

Environmental impact factors of TC Kragujevac are:

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

12.2.1. Electromagnetic Fields

During 2017, electromagnetic field measurements were not performed.

12.2.2. Living Environment Noise Measurements

During 2017, living environment noise measurements were not performed.

12.2.3. Waste

Waste is not owned by TC Kragujevac.

12.2.4. Surface, Ground Waters and Soil Monitoring

Monitoring of surface and groundwater, as well as monitoring of soil in 2017 was not performed on the territory of TC Kragujevac.

12.3. Working Environment Monitoring, Health and Safety

Reports on 2017 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**

12.3.1. Working environment monitoring

- **Working environment noise measurement**

Measurements of working environment noise were not performed in 2017

- **Working environment electromagnetic fields**

Measurements of electromagnetic fields in working environment were not performed in 2017.

- **Working environment parameters**

Measurements were not performed. Measurements are foreseen for 2018.

12.3.2. Safety

- **Training**

Training of employees is presented in the Table 137

Table 137

TECHNICAL CENTER KRAGUJEVAC					
Training in 2017					
Department/Unit	**Number of employees**	**For training**		**Trained**	
		Број	**%**	**Број**	**%**
TC HQ	130	19	14,61	19	100,00
Kragujevac Department	169	134	79,29	134	100,00
Training for safe operation according to the Act on risk assessment - introduction to risks and protection measures					
Pozarevac Department	111	70	63,06	70	100,00
Training for safe operation according to the Act on risk assessment - introduction to risks and protection measures					
Smederevo Department	76	61	80,26	61	100,00
Training for safe operation according to the Act on risk assessment - introduction to risks and protection measures					
TOTAL: TECHNICAL CENTER KRAGUJEVAC	**486**	**284**	**58,44**	**284**	**100,00**

- **Work injuries**

The status of injuries for 2017 is presented in Table 138.

Table 138

TECHNICAL CENTER KRAGUJEVAC						
Work injuries in 2017						
Department/Unit	**Number of employees**	**Injuries – number of employees ratio**				
		Light	**Serious**	**Fatalities**	**Total.**	**%**
TC HQ	130	6	1	0	7	5,38
Kragujevac Department	169	6	0	0	6	3,55
Pozarevac Department	111	6	0	0	6	5,41
Smederevo Department	76	3	0	0	3	3,95
TOTAL: TECHNICAL CENTER KRAGUJEVAC	**486**	**21**	**1**	**0**	**22**	**4,53**

12.3.3. Health

Periodical medical examination data are given in the Table 138.

Table 138

TECHNICAL CENTER KRAGUJEVAC											
Working capacity in 2017											
Department/Unit	**Number of employees**	**Previous and periodical examinations**				**Capability for work**					
		Referred to examination		**Examined**		**Capable**		**Limited capability**		**Incapable**	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
TC HQ	130	19	14,62	19	100,00	15	78,95	1	5,26	3	15,79
Kragujevac Department	169	115	68,05	108	93,91	66	61,11	17	15,74	25	23,15
Pozarevac Department	111	105	94,59	105	100,00	76	72,38	25	23,81	4	3,38
Smederevo Department	76	65	85,53	65	100,00	51	78,46	14	21,54	0	0,00
TOTAL: TECHNICAL CENTER KRAGUJEVAC	**486**	**312**	**64,20**	**297**	**95,19**	**208**	**70,03**	**57**	**19,19**	**32**	**10,77**

12.4. Public complaints

There were no public complaints in 2017.

13. TECHNICAL CENTER NIS

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 2017 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 2017.

13.2.2. Environmental noise

Environmental noise measurements were not conducted in 2017.

13.2.3. Waste

Technical Center Nis did not generate waste in 2017.

13.2.4. Surface, Ground Waters and Soil Monitoring

Monitoring of surface and groundwater, as well as monitoring of soil in 2017 was not performed on the territory of TC Nis.

13.3. Working Environment Monitoring, Occupational Health and Safety

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

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

13.3.1. Working Environment Monitoring

Safety and Health at Work (Official Gazette RS, no. 101/05) and Rulebook on procedure of testing and examining work equipment and examining conditions of work environment (Official Gazette RS, no. 94/06 and 108/06 – correction, 114/14 and 102/15).

- **Working noise measurements**

During 2017 in the sector for technical services Pirot the examination of working environment for winter period was carried out and the mesurements results are given in Table 139. In the offices not included in the table, noise does not represent the polluter.

In other STS, measurements and examinations of working environment were not carried out in 2017.

Table 139

TECHNICAL CENTER NIS			
Working noise in 2017			
Sector for techinal services	**Examination subject**	**Registered noise level in working rooms in dB (A)**	**Allowed noise level in dB (A)**
STS Pirot	**HQ of Technical Services Sector Pirot**		
	Auto mechanic workshop	78	85
	Car wash	76	85
	Locksmith workshop	83	85
	Branch Dimitrovgrad		
	Auto mechanic workshop	79	85
	Locksmith workshop	79	85
	Branch Babusnica		
	Auto mechanic workshop	72	85
	Locksmith workshop	74	85
	Branch Bela Palanka		
	Locksmith workshop	74	85

- **Environemental electromagentic fields**

Measurements of environmental electromagnetic fields were not performed in 2017.

- **Working environment parameters**

During 2017 in the branch for technical services Pirot the testing of working environement conditions for winter period was conducted and the mesurement results are given in the follwong tables At 5 measuring points, the measured parameters of the microclimate (temperature) are outside the comfort zone (low air temperature).

Monitoring of temperature, humidity and velocity parameters for winter period 2017 is given in Table 140.

Table 140

TECHNICAL CENTER NIS					
Temperature, humidity and velocity in 2017.					
Sector for techinal services Pirot					
No.	**Measurement point**	**Monitoring**			**Note**
		t *C	**Rv %**	**Vm/s**	**Comfort zone**
1.	Office no.32 – IT	21,0	34,3	0,04	Within zone
2.	Dispatch center	22,8	26,1	0,05	Within zone
3.	Emergency service room	18,6	29,8	0,07	Within zone
4.	Counter hall	18,5	38,6	0,04	Within zone
5.	Cashier	19,3	36,0	0,05	Within zone
6.	Room for electric fitters	18,3	50,1	0,07	Within zone
7.	Auto mechanic workshop	16,6	36,1	0,06	Within zone
8.	Car wash	15,1	56,1	0,05	Within zone
9.	Office of warehouse clerk	18,8	49,3	0,03	Within zone
10.	Locksmith workshop	16,8	35,4	0,09	Within zone
11.	"Nova Lokacija" Gnjilan - Counter hall	18,3	41,0	0,04	Within zone
12.	"Nova Lokacija" Gnjilan - Office of warehouse clerk	18,2	40,3	0,05	Within zone
13.	"Nova Lokacija" Gnjilan - Warehouse	10,6	48,5	0,08	Outside the zone
14.	"Nova Lokacija" Gnjilan - Oil and lubricants warehouse	7,7	55,8	0,09	Outside the zone
15.	"Nova Lokacija" Gnjilan - Warehouse for temporary storage of waste	5,6	65,2	0,11	Outside the zone
16.	BU Dimitrovgrad - Counter hall	19,9	34,4	0,05	Within zone
17.	BU Dimitrovgrad - Room for electric fitters	19,9	41,9	0,07	Within zone
18.	BU Dimitrovgrad - Warehouse	18,4	42,6	0,05	Within zone
19.	BU Dimitrovgrad - Auto mechanic workshop	15,6	40,1	0,04	Within zone
20.	BU Dimitrovgrad - Locksmith workshop	18,0	31,6	0,05	Within zone
21.	BU Dimitrovgrad - Sales representative office	18,7	47,7	0,03	Within zone
22.	BU Dimitrovgrad - Cashier	19,0	35,1	0,04	Within zone
23.	BU Babusnica - Office no.12 – Office of senior associate for electric power unit maintenance	20,7	38,8	0,03	Within zone
24.	BU Babusnica - Cashier	20,1	28,2	0,04	Within zone
25.	BU Babusnica - Room for electric fitters	20,2	24,5	0,05	Within zone
26.	BU Babusnica - Office of warehouse clerk	18,2	46,2	0,06	Within zone
27.	BU Babusnica - Auto mechanic workshop	16,8	33,4	0,09	Within zone
28.	BU Babusnica - Locksmith workshop	15,2	50,3	0,07	Within zone
29.	BU Babusnica - Counter hall	18,5	38,3	0,07	Within zone
30.	BU Bela Palanka – Office of electric power units' maintenance officer	21,5	40,4	0,04	Within zone
31.	BU Bela Palanka - Cashier	23,0	33,5	0,04	Within zone
32.	BU Bela Palanka - Room for electric fitters	18,2	53,4	0,08	Within zone
33.	BU Bela Palanka - Auto mechanic workshop	12,1	41,0	0,07	Outside the zone
34.	BU Bela Palanka - Locksmith workshop	10,2	55,5	0,11	Outside the zone
35.	BU Bela Palanka - Warehouse	15,3	55,4	0,09	Within zone
36.	BU Bela Palanka - Counter hall	18,4	43,5	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.

Division of protective winter work shoes is expected in accordance with the Decision of the Supervisory Board for transfer of PPE, and procurement of PPE for TC Nis, , Sector for techinal services Pirot. Needs.

The monitoring of chemical hazards parameters for the winter period of 2017 is given in Table 141. In rooms that do not mention chemical hazards, they do not appear as a detriment.

Table 141

TECHNICAL CENTER NIS						
Chemical hazards						
Sector for techinal services Pirot						
No.	**Measurement point**	**Chemical hazards type**	**Measured concentration.**	**Exposition (h)**	**MDK**	**Concentration exceedance**
1.	Auto mechanic workshop (Department HQ)	mineral dust with less than 1% SiO2	0,18	8	15	Meets the limit
2.	Locksmith workshop (Department HQ)	mineral dust with less than 1% SiO2	0,38	8	15	Meets the limit
3.	BU Dimitrovgrad, Locksmith workshop	mineral dust with less than 1% SiO2	0,32	8	15	Meets the limit
4.	BU Babusnica, Locksmith workshop	mineral dust with less than 1% SiO2	0,11	8	15	Meets the limit

Monitoring of illumination in winter period in 2017 is presented in Table 142.

Table 142

TECHNICAL CENTER NIS					
Illumination for 2017 – winter period					
Sector for techinal services Pirot					
No.	**Measurement point**	**Monitoring**			**Note**
		Illumination	**Illumination (lx)**		**Illumination**
			Measured	**Sufficient**	
1.	Office no.32 – IT	combined	566	150-300	Sufficient
2.	Dispatch center	combined	233	150-300	Sufficient
3.	Emergency service room	combined	245	80-150	Sufficient
4.	Counter hall	combined	1420	80-150	Sufficient
5.	Cashier	combined	337	150-300	Sufficient
6.	Room for electric fitters	combined	285	80-150	Sufficient
7.	Auto mechanic workshop	combined	275	80-150	Sufficient
8.	Car wash	combined	192	80-150	Sufficient
9.	Office of warehouse clerk	combined	321	150-300	Sufficient
10.	Locksmith workshop	combined	185	80-150	Sufficient
11.	“Nova Lokacija” Gnjilan - Counter hall	combined	273	80-150	Sufficient
12.	“Nova Lokacija” Gnjilan - Office of warehouse clerk	combined	337	150-300	Sufficient
13.	“Nova Lokacija” Gnjilan - Warehouse	combined	96	80-150	Sufficient
14.	“Nova Lokacija” Gnjilan - Oil and lubricants warehouse	combined	377	80-150	Sufficient
15.	“Nova Lokacija” Gnjilan - Warehouse for temporary storage of waste	combined	223	80-150	Sufficient
16.	BU Dimitrovgrad - Counter hall	combined	285	150-300	Sufficient
17.	BU Dimitrovgrad - Room for electric fitters	combined	301	80-150	Sufficient
18.	BU Dimitrovgrad - Warehouse	combined	244	150-300	Sufficient
19.	BU Dimitrovgrad - Auto mechanic workshop	combined	273	80-150	Sufficient
20.	BU Dimitrovgrad - Locksmith workshop	combined	284	80-150	Sufficient
21.	BU Dimitrovgrad - Sales representative office	combined	533	150-300	Sufficient
22.	BU Dimitrovgrad - Cashier	combined	224	150-300	Sufficient
23.	BU Babusnica - Office no.12 – Office of senior associate for electric power unit maintenance	combined	332	150-300	Sufficient
24.	BU Babusnica - Cashier	combined	192	150-300	Sufficient

25.	BU Babusnica - Room for electric fitters	combined	207	80-150	Sufficient
26.	BU Babusnica - Office of warehouse clerk	combined	211	150-300	Sufficient
27.	BU Babusnica - Auto mechanic workshop	combined	155	80-150	Sufficient
28.	BU Babusnica - Locksmith workshop	combined	155	80-150	Sufficient
29.	BU Babusnica - Counter hall	combined	198	80-150	Sufficient
30.	BU Bela Palanka – Office of electric power units' maintenance officer	combined	325	150-300	Sufficient
31.	BU Bela Palanka - Cashier	combined	290	150-300	Sufficient
32.	BU Bela Palanka - Room for electric fitters	combined	256	80-150	Sufficient
33.	BU Bela Palanka - Auto mechanic workshop	combined	310	80-150	Sufficient
34.	BU Bela Palanka - Locksmith workshop	combined	211	80-150	Sufficient
35.	BU Bela Palanka - Warehouse	combined	218	80-150	Sufficient
36.	BU Bela Palanka - Counter hall	combined	164	80-150	Sufficient

13.3.2. Protection at work

- **Employee training**

Employee training is presented in Table 143.

Table 143

TECHNICAL CENTER NIS					
Employee training in 2017					
Organizational unit	**Number of employees**	**For training**		**Trained**	
		No.	**%**	**No.**	**%**
Sector for techinal services Nis	**160**				
Safe work training		30	18,75	30	100,00
Training for newly employed and non-qualified workers		0	0,00	0	0,00
Training for safe work of employees with Temporary Employment Contract		0	0,00	0	0,00
Sector for techinal services Leskovac	**154**				
Safe work training		11	7,14	11	100,00
Training for newly employed and non-qualified workers		2	1,30	2	100,00
Training for safe work of employees with Temporary Employment Contract		65	100,00	65	100,00
Sector for techinal services Zajecar	**221**				
Safe work training		171	77,40	171	100,00
Training for newly employed and non-qualified workers		3	1,36	3	100,00
Training for safe work of employees with Temporary Employment Contract		19	100,00	19	100,00
Sector for techinal services Vranje	**112**				
Safe work training		0	0,00	0	0,00
Training for safe work of employees with Temporary Employment Contract		0	0,00	0	0,00
Training for newly employed and non-qualified workers		7	6,25	7	6,25
Training for safe work with hazardous matters		0	0,00	0	0,00
Sector for techinal services Pirot	**81**				
Safe work training		54	66,7	54	100,00
Training for newly employed and non-qualified workers		2	2,45	2	100,00
Training for safe work of employees with Temporary Employment Contract		7	100,00	7	100,00

Theoretical and practical training of employees for the position of turbine operator for voltage level 35, 10 and 0.4kV		16	19,75	16	100,00
Sector for techinal services Prokuplje	**76**				
Safe work training		65	85,50	65	100,00
Training for newly employed and non-qualified workers		6	7,90	6	100,00
Training for safe work of employees with Temporary Employment Contract		13	100,00	13	100,00
HQ	**79**				
Safe work training		40	50,63	40	100,00
Training for safe work of employees with Temporary Employment Contract		0	0,00	0	0,00
Training for newly employed and non-qualified workers		0	0,00	0	0,00
TOTAL: TECHNICAL CENTER NIS	**883**	**511**	**57,87**	**511**	**100,00**

- **Work injuries**

Number of work injuries in 2017 is presented in Table 144.

Table 144

TECHNICAL CENTER NIS						
Work injuries in 2017						
Organizational unit	**Number of employees**	**Work injuries in relation to the number of employees**				
		Light	**Serious**	**Fatal**	**Total.**	**%**
Leskovac	154	3	0	0	3	1,95
Pirot	81	3	0	0	3	3,70
Zajecar	221	3	4	1	8	3,62
Vranje	112	2	0	1	3	2,68
Prokuplje	76	2	0	0	2	2,63
Nis	160	6	1	0	7	4,38
TC Nis HQ	79	0	0	0	0	0,00
TOTAL: TECHNICAL CENTER NIS	**883**	**19**	**5**	**2**	**26**	**2,94**

During 2017, at the Technical Center Nis, came two injuries with a fatal outcome.

On May 31, 2017, at about 10:30, Jordan Arsic, who has been working on position – Senior electric fitter for electric power units maintenance, was mortally wounded. The employee was injured when, while working on aluminium ladders at pole, he fell from the ladders at the ground, and was injured with a fatal outcoume.

On July 12, 2017, at about 02:00, Aleksandar Pitarevic, who has been working on position – Senior electric fitter for electric power units maintenance, was fatally wounded. While the employee was on the road with company's car for intervention (failure removal), he had a car accident. Due to inflicted injuries, he passed away at the hospital on July 17, 2017.

13.3.3. Health protection

Periodic medical examinations of employees, presented in Table 145 are carried out regularly for all newly recruited workers and employees working on jobs with special working conditions.

Table 145

TECHNICAL CENTER NIS											
Work capabilty in 2017											
Organizational unit	Number of emplovees	Periodical examination				Capability for work					
		Referred to examination		Examined		Capable		Limited capability		Incapable	
		Number	%	Number	%	Number	%	Number	%	Number	%
Leskovac	154	103	66,88	103	100	93	90,29	10	9,71	0	0,00
Pirot	81	61	75,31	60	98,36	51	85	9	15,00	0	0,00
Zajecar	221	172	77,83	170	98,84	133	78,24	36	21,18	1	0,59
Vranje	112	75	66,96	75	100	59	78,67	14	18,67	2	2,67
Prokuplje	76	50	65,79	49	98	44	89,80	5	10,20	0	0
Nis	160	70	43,75	69	98,57	64	92,75	4	5,80	1	1,45
TC Nis HQ	79	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
TOTAL: TECHNICAL CENTER NIS	**883**	**531**	**60,14**	**526**	**99,06**	**444**	**84,41**	**78**	**14,83**	**4**	**0,76**

13.4. Public complaints

There were no public complaints in TC Nis in 2017.

14. PE EPS HQ

14.1. Working Environment Monitoring, Occupational Health and Safety

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

- **Working environment monitoring**
  - working environment noise measurements
- **Safety**
  - training
  - work injuries
- **Health**

14.1.1. Working Environment Monitoring

- **Working Environment Noise Measurements**

In 2017. no working environment noise measurements were performed as it had been done at the end of 2015.

14.1.2. 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 2017:

- Health and Safety Training of employees.....190

Dangers and hazards and/or risk factors are addressed in conformity with the Health and Safety Rules and Risk Assessment Act.

- **Work injuries**

Table 146 shows the 2017 work injuries data.

Table 146

PE EPS HQ						
Work injuries in 2017						
Organisational unit	Number of employees	Injuries compared to the number of employees				
		Easy	Heavy	Fatalities	Total	%
PE EPS HQ	725	2	1	0	3	0,41
TOTAL: PE EPS HQ	**725**	**2**	**1**	**0**	**3**	**0,41**

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 147.

Table 147

PE EPS HQ											
Work capability in 2017											
Organisational unit	**Number of employees**	**Periodical examinations**				**Work capability**					
		Referred to examination		**Examined**		**Capable**		**Limited capability**		**Not capable**	
		No.	%	No.	%	No.	%	No.	%	No.	%
PE EPS HQ	725	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
TOTAL: PE EPS HQ	**725**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**

14.4. Public complaints

Public complaints in 2017 are shown in Table 148.

Table 148

PE EPS HQ			
Public complaints in 2017			
Organizational unit	**Complaint (number and date)/complainant**	**Subject of complaint**	**Undertaken measures**
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-65209 / 1 -17 02.02.2017. Salvica Vukojčić Radnička 74, 11563 Veliki Crljeni	Terrain subsidence and drying of fruit trees due to the operation on the mine Veliki Crljeni. Resolution proposal: Household expropriation	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-66817 / 1 -17 03.02.2017. Dragan Petrović Tamnavska 55 11563 Veliki Crljeni	Due to the vicinity of mine that is currently not operational and still diverts underground water causing thus terrain subsidence and crack in buildings. Issues regarding wastewater overflowing and sewage from TPP that often overflows. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-66885 / 1 -17 03.02.2017. Milovan Glišić Tamnavska 55 11563 Veliki Crljeni	House is cracked, foundation subsided, water well dried out. A lot of slag and dust. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location

Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-75080 / 1 -17 06.02.2017. Dragan Stamenović Radnička 40/a 11563 Veliki Crljeni	Due to excavator operation there are cracks in the house and terrace, as well as in the auxiliary facilities. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	1.0-0.12-01-77679 / 1 -17 07.02.2017. Jelika Terzić Ž.J. Španca 13 11563 Veliki Crljeni	Due to the vicinity of railway corridor TV signal cannot be received, noise is too loud and 130 earthquakes occur every 24 hours. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-77669 / 1 -17 07.02.2017. Milanka Radičević Radnička 21 11563 Veliki Crljeni	In the last 3-4 years terrain subsided and facilities cracked, fruit trees dried out. Radiation from HV overhead lines over the entire household. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-77707 / 1 -17 07.02.2017. Miloš MItrović Ž.J.Španca1 11563 Veliki Crljeni	He lives in the vicinity of railway hub, trains often pass nearby his household and hence there is a lot of coal dust corroding metal and spouts. Underground water pumping out causes terrain subsidence and cracks in house. Unbearable noise is caused by trains. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-77642 / 1 -17 07.02.2017. Velibor Petković Tamnavska 46 11563 Veliki Crljeni Phone no. 062-8870 914	Due to the terrain subsidence, building cracked and black water occurs. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-77657 / 1 -17 07.02.2017. Branka MIlanović Ž.J. Španca15 11563 Veliki Crljeni Phone no. 011 8161-907	Building cracked due to vibration and grape vine dried out. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.

Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-77526 / 1. -17 07.02.2017. Hranislav Krsmanović Radnička 50a 11563 Veliki Crljeni	Due to the vicinity of Tamnava and TPP huge contamination occurred causing the illness of the person. Household is endangered since cracks occurred in the facility and fruit trees dried out. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-77565 / 1 -17 07.02.2017. Darko Terzić Ž.J.Španca 13 11563 Veliki Crljeni	Due to the railway line facility several damages were made to house, auxiliary facilities, etc. 130 earthquakes occur every 24 hours. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-77550 / 1 -17 07.02.2017. Živadin Mitrović Ž.J.Španca 1 11563 Veliki Crljeni	He lives in the vicinity of railway hub, trains often pass by his household and hence there is a lot of coal dust corroding metal and spouts. Underground water pumping out causes terrain subsidence and crack in the house. Unbearable noise caused by trains. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-77588 / 1 -17 07.02.2017. Jelena Vašalić Ž.J.Španca 43b 11563 Veliki Crljeni	Cracks on the concrete walls of the house and facilities are becoming larger due to terrain erosion. Coal dust corroding the spouts and there is no water in the wells. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-77617 / 1 -17 07.02.2017. Života Terzić Radnička 78 11563 Veliki Crljeni	Due to the operation on the mine cracks occurred in the house, trees dried out and wind blew out roof tiles. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.

Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-77617 / 1 -17 07.02.2017. Dragan Terzić Radnička 78 11563 Veliki Crljeni	During previous 2-3 years, due to the operation of the mine cracks in the house, fruit trees have been dried out and wastewaters are around the house. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-03-78200 / 1 -17 07.02.2017. Ružica Kaličanin Borska 9 C/11 Rakovica-Beograd	Due to the vicinity of mine: 1-loud noise; 2-often siren sound; 3-a lot of dust; 4-cracks on the house walls. Resolution proposal: Resettlement	Complaint response – groundless complaint.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-03- 80156 / 1 -17 07.02.2017. Miloš Radičević 11563 Veliki Crljeni	Due to water pumping out the erosion of terrain occurs causing cracks in house and spouts are damaged by coal dust. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-03-80227 / 1 -17 07.02.2017. Radosav Vasic Radnička 60 11563 Veliki Crljeni	Environment is jeopardized and cracks occur in the building. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-03-80203 / 1 -17 08.02.2017. Zoran Simić Radnička 66 11563 Veliki Crljeni	Due to the operation of the mine, cracks occur in the facility, noise and dust are unbearable. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-03-80203 / 1 -17 08.02.2017. Ratko Novaković Ž.J Španca 21 11563 Veliki Crljeni	In the last few months terrain subsidence has become a lot more visible, houses crack more often. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.

Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-03-80648 / 1 -17 08.02.2017. Miroslav Milanović Ž.J.Španca 6 11563 Veliki Crljeni	After the floods the terrain has been subsided causing cracking of buildings, coal dust is being uncontrollably dispersed by the compositions transporting coal. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-03- 81234 / 1 -17 08.02.2017. Milovan Milinković Ž.J.Španca 1b 11563 Veliki Crljeni	Lives in the vicinity of railway hub, trains often pass by his household and hence there is a lot of coal dust corroding the metal and spouts. Terrain subsided and house cracked due to the underground water pumping out. Unbearable noise is caused by trains Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	18-00- 81234 / 1 -17 08.02.2017. Nebojša Živanović Radnička 32 11563 Veliki Crljeni	Due to the vicinity of mine the houses crack, air pollution is high and mining machines and railway coal transport are making noise. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	18-00- 81243 / 1 -17 08.02.2017. Milovan Ačimović Radnička 28 11563 Veliki Crljeni	Due to the vicinity of mine the houses crack, air pollution is high and mining machines and railway coal transport are making noise. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-03- 82492 / 1 -17 09.02.2017. Vladan Sinđelić Ž.J.Španca 5 11563 Veliki Crljeni	Due to the vicinity of industrial railway line houses crack and coal dust corrode the spouts. Both the child and wife have respiratory issues. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.

Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-03-82487 / 1 -17 09.02.2017. Stana Vasiljević Radnička 1 11563 Veliki Crljeni	Air pollution, noise, racket and dust crate impossible living conditions. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-03-82477 / 1 -17 09.02.2017. Živomir Živanović Radnička 34 11563 Veliki Crljeni	Due to the vicinity of the mine houses crack, air pollution is increased and noise made by mining machines and railway coal transport is too loud. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 85321 / 1 -17 10.02.2017. Miodrag Krsmanović Ž.J.Španca7 11563 Veliki Crljeni	Air pollution, dust and noise made by mining machines, cracks in the facilities. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 85287 / 1 -17 10.02.2017. Borivoje Radojčić Ž.J.Španca 11563 Veliki Crljeni	Due to the vicinity of the mine the buildings crack and subside, there is no water in the wells. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 85746 / 1 -17 10.02.2017. Andrija Mllinković Ž.J.Španca 4 11563 Veliki Crljeni	- Terrain vibrations caused by railway transport; -Enormous amount of coal dust; -Land contaminated by dirty rains. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 85609 / 1 -17 10.02.2017. Dejan Stanković Ž.J.Španca 4 11563 Veliki Crljeni	Due to the vicinity of the mine, houses crack, air pollution is increased Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.

Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 85306 / 1 -17 10.02.2017. Milosav Karabasil Ž.J.Španca 4. 11563 Veliki Crljeni	Due to the vicinity of mine the houses crack; vibration and increased air pollution occur Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 88106 / 1 -17 13.02.2017. Miroslav S Terzić Ibarski put 42 11563 Veliki Crljeni	During the last year the houses crack, increased air pollution occurs and fruit trees are dried out. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 88205 / 1 -17 13.02.2017. Petar Hinić Phone no. 064 9142 120	Terrain subsides for many years; residential buildings' foundations crack; Environment is polluted Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 88057 / 1 -17 13.02.2017. Milovan Radosavljević 11563 Veliki Crljeni	Houses crack and environment is polluted Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 88072 / 1 -17 13.02.2017. Zoran Veselinović Kolubarska 51 11563 Veliki Crljeni	Houses crack and environment is polluted Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 88118 / 1 -17 13.02.2017. Ljubivoj Radojičić Ž.J.Španca 10 11563 Veliki Crljeni	Soil erosion, house cracking, wells containing no water, fruit trees are drying out Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	18-00- 81243 / 1 -17 14.02.2017. Slobodan Makić Ž.J.Španca 35v 11563 Veliki Crljeni	Due to the vicinity of the mine, houses crack, increased air pollution and mining machines and railway coal transport cause too loud noise. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.

Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 90259 / 1 -17 14.02.2017. Nenad Đorđević Radnička 27 11563 Veliki Crljeni	Due to the vicinity of the mine, houses crack, increased air pollution and mining machines and railway coal transport cause too loud noise. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 90277 / 1 -17 14.02.2017. Aleksandar Radojičić Race Terzića 2 11563 Veliki Crljeni	Walls are cracked, pollution, noise made by machines. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 90300 / 1 -17 14.02.2017. Lazar Makić Ž.J.Španca 35a 11563 Veliki Crljeni	Walls are cracked, pollution, noise made by machines, terrain subsided. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 92779 / 1 -17 17.02.2017. Saša Terzić Ibarski put 36 11563 Veliki Crljeni	Walls are cracked, wells contain no water, pollution by waste waters. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 92829 / 1 -17 17.02.2017. Milan Miladinović Radnička 8 11563 Veliki Crljeni	Walls crack, high humidity and air pollution. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 92891 / 1 -17 17.02.2017. Verica Milanović Ž.J.Španca 6 11563 Veliki Crljeni	Health is jeopardized, air pollution is high, not enough drinking water. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 95537 / 1 -17 20.02.2017. Miroslav Simić Radnička 19 11563 Veliki Crljeni	Walls crack, high humidity and air pollution. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.

Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 95575 / 1 -17 20.02.2017. Dragan Tošanić Ž.J.Španca 16 11563 Veliki Crljeni	Walls crack, air pollution and too loud noise. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 95556 / 1 -17 20.02.2017. Tomislav Marković Radnička 8 11563 Veliki Crljeni	Serious flood happened in 2014, increased noise level, cracks in the facilities, air pollution. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 95822 / 1 -17 20.02.2017. Mileva Tošić Ž.J.Španca 25 11563 Veliki Crljeni	During the last year the houses crack, air pollution is increased and fruit trees dry out. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 98030 / 1 -17 21.02.2017. Željko Terzić Ibarski put 36 11563 Veliki Crljeni	Cracks in facilities, well dried out, waste waters, increased noise level and dust amounts… Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 98030 / 2 -17 21.02.2017. Slavica Terzić Ibarski put 36 11563 Veliki Crljeni	Cracks in facilities, well dried out, wastewaters, increased noise level and dust causing sleep problems. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-109929 / 1 -17 27.02.2017. Bojan Marinković Radnička 72/a 11563 Veliki Crljeni	Cracks in the house Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01-109963 / 1 -17 27.02.2017. Tanja Marinković Radnička 72 11563 Veliki Crljeni	Crack in the house, house subsides, seedling dry out, too loud noise and a lot of dust. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.

Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 112453 / 2 - 17 28.02.2017. Miloje Antonijević Ž.J.Španca 43 11563 Veliki Crljeni	Auxiliary facility walls are cracked, no water in the well, a lot of dust. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 112453 / 2 - 17 28.02.2017. Petar Pavlović Ž.J.Španca 14 11563 Veliki Crljeni	Cracks in the facility, fruit trees dry out, coal dust pollution. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 112422 / 2 - 17 28.02.2017. Siniša Božić Radnička 58/a 11563 Veliki Crljeni	Health issues, crack in the facility, dust pollution. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 119669/ 1 - 17 03.03.2017. Slobodan Vasić Ibarski put 11 11563 Veliki Crljeni	House is located 5m from waste waters and 49m from the mining edge, new overhead line is located above house roof, visible crack in the facility, there is possibility of collapsing. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 126861/ 1 - 17 08.03.2017. Njegoš Rankić Kolubarska 31 11563 Veliki Crljeni	House subsided and cracked, no water in wells, TV signal is interrupted when trains pass by. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 126794/ 1 - 17 08.03.2017. Božo Rankić Kolubarska 31 11563 Veliki Crljeni	House subsided and cracked, no water in wells, TV signal is interrupted when trains pass by. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.

Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 131564/ 1 - 17 10.03.2017. Milan MItrović Ibarski put 46 11563 Veliki Crljeni	Floods on 15th May 2014 destroyed the house, fruit trees are dried out and stone crusher is located 50m from the house. Children health jeopardized. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	3.1.0-0.12-01- 112453/ 5 - 17 13.03.2017. Željko Simić Veljka Vlahovića 22/9 11550 Lazarevac	Lot is located 30m from the edge of the mine Tamnava. Damages have been made to the facilities within the household due to vibration caused by the operation of excavator in the last three years. Resolution proposal: Resettlement	Complaint amendment: In the aim of acting regarding the submitted claim, it has to be amended by providing the number of cadaster lot, i.e. facility/household location.
Service for internal regulations and relations with regulatory bodies and stakeholders	28.3.2017. EBRD Martin McKee	EBRD asked from PE EPS to provide assistance in the preparation of the response to the complaint of Mr. Nebojs a Mitrovic as soon as possible since Mr. Mitrovic has to move out on 4th April 2017. Also they asked the assistance in the preparation of the response to the complaint of Ranko Rankovic and Ivan Toloc kov – complaints regarding complaint amount and behavior of the representatives of PE EPS Legal Affairs Division.	PE EPS Cabinet submitted via e-mail, the response, no. 12.01.168989/1-17 on 30th April 2017 to EBRD representative regarding the complaint of Nebojs a Mitrovic. Response on the complaints is being preparedPE EPS Cabinet submitted via e-mail, the response, no. 12.01.168989/1-17 on 30th April 2017 to EBRD representative regarding the complaint of Nebojs a Mitrovic. Response on the complaints is being prepared
Service for internal regulations and relations with regulatory bodies and stakeholders	15.05.2017. Michaela Bergman, Chief Counsel for Social Issues & Manager of the EBRD Gender Equality Team	Assistance and attitude definition with PE EPS regarding the correspondence with CEKOR and Bankwatch related to the displacement in Vreoci and the subject cases of Ivan Tolockov and Ranko Rankovic	On 18th May 2017 PE EPS sent a note to the EBRD regarding the issues concerned.
Service for internal regulations and relations with regulatory bodies and stakeholders	17.05.2017. Michaela Bergman, Chief Counsel for Social Issues & Manager of the EBRD Gender Equality Team	Assistance and attitude definition with PE EPS regarding the correspondence with CEKOR and Bankwatch related to the displacement in Vreoci and the subject case of Dragan Živanovic	On 26th May 2017 PE EPS sent a note to the EBRD regarding the subject case of Dragan Živanovic .

Service for internal regulations and relations with regulatory bodies and stakeholders	19.05.2017. Michaela Bergman, Chief Counsel for Social Issues & Manager of the EBRD Gender Equality Team	Assistance and attitude definition with PE EPS regarding the correspondence with CEKOR and Bankwatch related to the displacement in Vreoci and the subject cases of Zejbeka Sulejmani and Hajdara Sulejmani	On 1st June 2017 PE EPS sent an opinion to the EBRD regarding the subject cases of Zejbeka Sulejmani and Hajdara Sulejmani.
Service for internal regulations and relations with regulatory bodies and stakeholders	27.05.2017. Michaela Bergman, Chief Counsel for Social Issues & Manager of the EBRD Gender Equality Team	Request for additional information on the subjects cases as the topic of communication between CEKOR and EBRD	On 7th June 2017 PE EPS sent the additional information on the subject cases to the EBRD
Service for internal regulations and relations with regulatory bodies and stakeholders	05.06.2017. Nikola Perusic, Assistant Coordinator of the CEKOR Project	Request to verify information on the offered price to the complainants and reply regarding the composition of the list	On 7th June 2017 PE EPS sent the requested information to the EBRD
Service for internal regulations and relations with regulatory bodies and stakeholders	06.06.2017. Nikola Perus ic , Assistant Coordinator of the CEKOR Project	Insisting on good price for the households of Toloc kov, Rankovic and Sulejmani.	/
Service for internal regulations and relations with regulatory bodies and stakeholders	23.06.2017. Nikola Perusic, Assistant Coordinator of the CEKOR Project	Invitation for discussion on the health status of the residents of Drmno	/
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-575164/2-17 Bogdan Gasovic, TC Novi Sad 24.11.2017.	The amount of incentive compensation	The complaint adopted
Service for internal regulations and relations with regulatory bodies and stakeholders	1ø.020-E.09 09.05-574619/2-17 Dragan Milenkovic TC Kraljevo 21.11.2017.	The amount of incentive compensation	Resigned from the application
Service for internal regulations and relations with regulatory bodies and stakeholders	03.03-577976/2-17 Dragan Mladenovic TENT Subsidiary 24.11.2017.	The amount of incentive compensation	The complaint rejected

Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-578446/2-17 Dragan Popovic "Kolubara" Subsidiary 07.12.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	09.05-535045/1201 Dragomir Nesic ODS	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-578361/2-17 Dragan Popović "Kolubara" Subsidiary 29.11.2017.	The amount of incentive compensation	The complaint rejected, the application not accepted for criminal prosecution
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-594747/1-17 Dušan Adžić TC Beograd 24.11.2017	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	598904/1 Goran Antić TC Niš 28.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	Goran Ristić ODS	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-578771/2-17 Ljubiša Karić TC Niš 12.12.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	05.01-592834/1-17 Mališa Ivković TE-KO Kostolac 23.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	Д314475/1 Mile Stoilkovic ODS 8.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01.578777/2-17 Milena Dimitrijevic TC Kragujevac 30.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01.578777/2-17 Milenija Dinić "Kolubara" Subsidiary 1.12.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	03.01-527231/11-17 Milica Bačić TENT Subsidiary 24.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	09.05-577686/2-17 Miodrag Račić TC Kraljevo 24.11.2017.	The amount of incentive compensation	The complaint rejected

Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-577172//2-17 Nebojša Stanković TC Niš 28.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-607331/1-17 Nenad Ljubinković ODS 30.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	03.01-588360/1-17 Slavko Lukić TENT Subsidiary 22.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	05.01-593958/1-17 Snezana Vujovic TE-KO Kostolac 24.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-577234/2-17 Toplica Djordjevic TC Nis 28.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	04.02-598486/1-17 Vera Obradović „Kolubara“ Subsidiary 28.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-578806/2-17 Zoran Ilić TC Nis 01.12.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	E 04.09-606140/1-17 Milisav Ilić „Kolubara“ Subsidiary 14.11.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	03.01-527231/16-17 Veljko Grujicic TENT Subsidiary 15.12.2017.	The amount of incentive compensation	The complaint rejected. The complainant withdrew after the complaint had been rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-623394/1-17 Zoran Kotorčević 08.12.2017.	The amount of incentive compensation	The complaint rejected
Service for internal regulations and relations with regulatory bodies and stakeholders	Dragan Dzopalic TC Kraljevo	The amount of incentive compensation	The correction of the Decision on rejecting the application had been made and the application was accepted, but the applicant withdrew the application.
Service for internal regulations and relations with regulatory bodies and stakeholders	Zivorad Djordjevic TENT Subsidary	The amount of incentive compensation	Correction of the Decision for comission in writing the amount of incentive compensation

Service for internal regulations and relations with regulatory bodies and stakeholders	03.01-527231/12-17 Milosav Pavlovic 27.11.2017.	The amount of incentive compensation	The correction of the Decision was made after the documentation had been submitted
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-544564/1-17 30.10.2017. Reaction of the Green Network	Request for information on detection, spread of invasive species at sites controlled by PE EPS (Acacia, Ambrosia)	The response was delivered to the one requesting the information
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-5705/1-18 4.1.2018. Reaction of the Green Network	Compatibility of PE EPS activities with the EBRD policy, comments on the ESAP table in the paragraph 6.1	The response was delivered to the one requesting the information
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-542351/2-17 27.12.2017. CEKOR, Zvezdan Kalmar	Comments on the Summary of the Action Plan Draft for PE EPS in the field of environmental protection for the period 2016-2025	Response in preparation.
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-542351/2-17 27.12.2017. Reaction of the Green Network Marija Nikolić	Comments on the Summary of the Action Plan Draft for PE EPS in the field of environmental protection for the period 2016-2025	Response in preparation.
Service for internal regulations and relations with regulatory bodies and stakeholders	12.01-542351/2-17 27.12.2017. ORCA Martin Raspor	Comments on the Summary of the Action Plan Draft for PE EPS in the field of environmental protection for the period 2016-2025	Response in preparation.

In Table 148 for the first 60 applications, each applicant was requested, unless it was already stated to supplement the complaint by specifying the number of the cadastral lot where the facility/household is located in order for PE EPS to act and respond to complaints. 8 applicants supplemented the filed complaint with the requested data necessary for responding to the complaint. PE EPS, after a field inspection, found that the complaints were ungrounded, and the applicants were informed within the time provided for by our grievance mechanism. In the case of the remaining 52 complaints, bearing in mind that the data necessary for the identification of the facility/households that were the subject of the complaint were not provided, PE EPS could not have responded.

15. EPS SNABDEVANJE BRANCH

15.1. Working Environment Monitoring, Occupational Health and Safety

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

- **Working environment monitoring**
  - -working environment noise measurements
- **Safety**
  - training
  - work injuries
- **Health**

15.1.1. Working Environment Monitoring

- **Working Environment Noise Measurements**

In 2017. no working environment noise measurements were performed as it had been done at the end of 2015..

15.1.2. 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 2017:

  - Health and Safety Training of employees.....50

Dangers and hazards and/or risk factors are addressed in conformity with the Health and Safety Rules and Risk Assessment Act.

- **Work injuries**

Table 149 shows the 2017 work injuries data.

Table 149

EPS SNABDEVANJE BRANCH						
Work injuries in 2017						
Organisational unit	**Number of employees**	**Injuries compared to the number of employees**				
		Easy	**Heavy**	**Fatalities**	**Total**	**%**
EPS Snabdevanje	1.163	2	1	0	3	0,26
TOTAL: EPS SNABDEVANJE	**1.163**	**2**	**1**	**0**	**3**	**0,26**

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 150.

Table150

EPS SNABDEVANJE BRANCH											
Work capability in 2017											
Organisational unit	**Number of employees**	**Periodical examinations**				**Work capability**					
		Referred to examination		**Examined**		**Capable**		**Limited capability**		**Not capable**	
		број	%	број	%	број	%	број	%	број	%
EPS Snabdevanje	1.163	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
TOTAL: EPS SNABDEVANJE BRANCH	**1.163**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**	**0**	**0,00**

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 Govermnet of Republic of Serbia dated 27th November 2014, Distribution System Operator „EPS Distribucija" doo Beograd was formed through the aquisition of the companies for electricty 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 NIS**

1. DISTRIBUTION AREA BEOGRAD

Table 151 provides the structure of all facilities within the system of DA Beograd.

Table 151

DISTRIBUTION AREA BEOGRAD												
Facilities and systems in 2017												
Branch	**Electricity distribution substations**								**Distribution network in km**			
	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 BEOGRAD - Centar									110 kV	0,000	0,000	0,000
									35 kV	0,000	0,000	0,000
									20 kV	0,000	0,000	0,000
									10 kV	851,800	2.277,000	3.128,800
									1,0 kV	0,000	0,000	0,000
									0,4 kV	3.864,500	4.299,000	8.163,500
Total	24	0	1	0	68	0	1.351	**1.444**	**Total**	**4.716**	**6.576,000**	**11.292,000**
ED Banovo Brdo									110 kV	0,000	0,000	0,000
									35 kV	0,000	0,000	0,000
									20 kV	0,000	0,000	0,000
									10 kV	366,000	840,000	1.206,000
									1.0 kV	0,000	0,000	0,000
									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**	**2.497,000**	**4.051,000**
ED Zemun									110 kV	0,000	0,000	0,000
									35 kV	0,000	0,000	0,000
									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**	**1.459,000**	**1.748,000**	**3.207,000**
ED Krnjača									110 kV	0,000	0,000	0,000
									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**
ED Mladenovac									110 kV	0,000	0,000	0,000
									35 kV	14,752	7,006	21,758
									20 kV	0,000	0,000	0,000
									10 kV	537,560	91,655	629,220
									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**	**2.351,000**	**184,000**	**2.535,000**
ED Obrenovac									110 kV	0,000	0,000	0,000
									35 kV	0,000	0,000	0,000
									20 kV	0,000	0,000	0,000
									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**	**1.866,000**	**255,000**	**2.122,000**
TOTAL: DISTRIBUTION AREA BEOGRAD									110 kV	0,000	0,000	0,000
									35 kV	14,752	7,006	21,758
									20 kV	0,000	0,000	0,000
									10 kV	2.649,450	4.112,570	6.762,020
									1.0 kV	0,000	0,000	0,000
									0.4 kV	9.950,301	7.465,940	17.416,241
Total	**24**	**0**	**1**	**0**	**68**	**0**	**5.229**	**5.322**	**Total**	**12.614,503**	**11.585,516**	**24.200,019**

1.1. Overview and Status of Permits

In 2017, 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 2017, measurement of electric and magnetic fields was performed for sources of non-ionizing radiation of substations: SS 110/10 kV Beograd 9, Kurirska bb, Electrical Engineering Institute *Nikola Tesla*, Laboratory for testing and calibration Belgrade (Report no. 317434-L dated 14.11.2017.), SS 110/10 kV, Beograd 27, Zemunska 19a, Electrical Engineering Institute *Nikola Tesla*, Laboratory for testing and calibration Belgrade (Report no. 317433-L dated 14.11.2017.), SS 110/10 Beograd 15 kV, Prote Mateje 10-16, Electrical Engineering Institute Nikola Tesla, Laboratory for testing and calibration Belgrade (Report no. 317393-Л од 14.11.2017.), SS 110/10 kV Beograd 14 Gospodar Jevremova, Electrical Engineering Institute Nikola Tesla, Laboratory for testing and calibration Belgrade (Report no. 317391-L dated 14.11.2017).

1.2.2. Environmental Noise

Measurements were not carried out in 2017.

1.2.3. Waste

Waste production in 2017 is presented in Table 152 according to the Serbian waste management regulations

Table 152

DISTRIBUTION AREA BEOGRAD											
Waste in 2017											
No.	**Official nomenclature of the Rules defining waste categories, its testing and classification (Official Gazette of the RS № 56/10, dated 10.08.2010)**	**Index number**	**Unit**	**Branch**						**Total**	**NOTE**
				ED BEOGRAD - CENTAR	**ED BANOVO BRDO**	**ED ZEMUN**	**ED KRNJAČA**	**ED MLADENOVAC**	**ED OBRANOVAC**	**EPS DISTRIBUCIJA**	
				Amounts							
1.	Oils for insulation and heat transfer containing PCB	13 03 01*		0,000	14,420	30,420	0,000	16,340	0,000	61,180	Oiled water from oil pits
2.	Other emulsions	13 08 02*		91,940	41,780	114,320	0,000	0,000	11,220	259,260	This type of waste is comprised of power transformers without insulation oil
3.	Discarded equipment other than specified in 16 02 09 to 16 02 13	16 02 14		0,000	0,000	300,540	0,000	0,000	0,000	300,540	Waste concrete poles
4.	Concrete	17 01 01		0,000	0,000	270,300	0,000	0,000	0,000	270,300	Waste copper cables, copper leftovers and waste, rails, copper wire, waste brass -outdated tools
5.	Copper, bronze, brass	17 04 01		0,000	0,000	3,700	0,000	0,000	0,000	3,700	Scrap aluminum, worn out cables, broken or blown cables, parts of outdated equipment
6.	Aluminium	17 04 02		0,000	0,000	13,960	0,000	0,000	0,000	13,960	Miscellaneous scrap iron resulting from the outage or aging equipment. Old Fe console with insulators, metal lattice poles, and waste galvanized sheet metal etc.
7.	Iron and steel	17 04 05		0,000	0,000	62,370	0,000	0,000	0,000	62,370	Waste made while replacing equipment and performing network servicing, due to the damages and old age, Al-Fe cable
8.	Mixed metals	17 04 07		0,000	0,000	43,580	0,000	0,000	0,000	43,580	Contaminated soil and gravel from the spilling location of transformer oil
9.	Soil and stone containing hazardous substances	17 05 03*		0,000	0,000	8,420	0,000	0,000	0,000	8,420	Waste insulators

10.	Insulation materials other than specified in 17 06 01 and 17 06 03	17 06 04		0,000	0,000	3,310	0,000	0,000	0,000	3,310	Oiled water from oil pits
11.	Bulky waste	20 03 07		0,000	0,000	0,360	0,000	0,000	0,000	0,360	

1.2.4. Surface, Ground Waters and Soil Monitoring

Monitoring of surface and groundwater, as well as monitoring of soil in 2017 was not performed.

1.3. Working Environment Monitoring, Occupational Health and Safety

2017 Occupational Health and Safety Reports also include the following activities:

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

1.3.1. Working Environment Monitoring

- **Working environment noise measurement**

Working environment noise measurements in 2017 were not carried out.

- **Working environment electromagnetic fields**

Measurements of the level of electrical and magnetic field in the working environment were not carried out during 2017

- **Working environment parameters**

Illumination testing is satisfactory according to the expert finding №. 3014059-1 and expert finding №. 3014059-2 of the Company for control of quality and quantity of goods - sector Tehnokontrola "Jugoinspekt Belgrade".

Thermal comfort investigation is satisfactory according to the expert finding №. 3014059-1 and expert finding №. 3014059-2 of the Company for control of quality and quantity of goods - sector Tehnokontrola "Jugoinspekt Belgrade".

1.3.2. Safety

- **Training**

It is carried out in accordance with the Occupational Safety Qualification and Knowledge Improvement Programme.

Training of workers is shown in Table 153, also including the training of newly recruited workers, as well as knowledge testing of workers in the aforementioned fields.

Table 153

DISTRIBUTION AREA BEOGRAD					
Training in 2017					
Branch	**Number of employees**	**For training**		**Trained**	
		No.	**%**	**No.**	**%**
Beograd- centar	736				
Knowledge testing		414	56,25	414	100,00
Newly recruited workers		38	5,16	38	100,00
ED Banovo Brdo	56	0	0,00	0	0,00
Knowledge testing					
ED Zemun	42	0	0,00	0	0,00
Knowledge testing					
ED Krnjača	24	0	0,00	0	0,00
Knowledge testing					
ED Mladenovac	18	0	0,00	0	0,00
Knowledge testing					
ED Obrenovac	18	0	0,00	0	0,00
Knowledge testing					
TOTAL: DISTRIBUTION AREA BEOGRAD	**894**	**452**	**50,56**	**452**	**100,00**

- **Work injuries**

The tatus of injuries for 2017 is presented in Table 154.

Table 154

DISTRIBUTION AREA BEOGRAD						
Work injuries in 2017						
Branch	**Number of employees**	**Work injuries in relation to the number of employees**				
		light	**serious**	**fatal**	**total**	%
ED Beograd - Centar	736	5	0	0	5	0,68
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 ARE BEOGRAD	**894**	**5**	**0**	**0**	**5**	**0,56**

1.3.3. Health

Periodic medical examinations of employees, presented in Table 155, are carried out regularly for all newly recruited workers and employees working on jobs with special working conditions.

Table 155

DISTRIBUTION AREA BEOGRAD											
Capability to work in 2017											
Branch	**Number of employees**	**Periodic examination**				**Work capability**					
		Referred to examination		**Examined**		**Capable**		**Limited capability**		**Incapable**	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
ED Beograd – Centar	736	255	34,65	255	100,00	255	100,00	0	0,00	0	0,00
ED Banovo Brdo	56	56	100,00	56	100,00	56	100,00	0	0,00	0	0,00
ED Zemun	42	17	40,48	17	100,00	17	100,00	0	0,00	0	0,00
ED Krnjača	24	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00

ED Mladenovac	18	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
ED Obrenovac	18	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
TOTAL:DISTRIBUTION AREA BEOGRAD	**894**	**328**	**36,69**	**328**	**100,00**	**328**	**100,00**	**0**	**0,00**	**0**	**0,00**

Note: The number of workers that was sent to medical examination is higher than the number of employees, because a number of workers have been retired throught the year and they were examined. Calculation of the number of employees was performed on 31st December.2017.

1.4. Public Complaints

Public complaints during 2017 are given in Table 156.

Table 156

DISTRIBUTION AREA BEOGRAD			
Public complaints in 2017			
Branch	**Complaint (number and date)/ complainant**	**Subject of complaint**	**Undertaken measures**
ED Zemun	Ministry of Agriculture and Environmental Protection No:353-03-00377/2017-18 dated 28.3.2017.	1. Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/10kV Beograd 9, Kurirska bb, Zemun polje, through engaged legal entity authorized to carry testing of radiation level of sources of non-ionizing radiation of special environmental interest in accordance with the article 10 of the Law on Non-Ionizing Radiation Protection. 2. Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department.	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Fiduciary Services Department were conducted.
ED Zemun	Ministry of Agriculture and Environmental Protection No:353-03-00376/2017-18 dated 28.3.2017.	1. Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/10kV Beograd 40, Milentija Popovica bb, through engaged legal entity authorized to carry testing of radiation level of sources of non-ionizing radiation of special environmental interest in accordance with the article 10 of the Law on Non-Ionizing Radiation Protection. 2. Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department.	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Fiduciary Services Department were conducted.
ED Zemun	Ministry of Agriculture and Environmental Protection No:353-03-00376/2017-18 dated 28.3.2017.	1. Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/10kV Beograd 27, Zemunska 19a, through engaged legal entity authorized to carry testing of radiation level of sources of non-ionizing	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Fiduciary Services Department were conducted.

		radiation of special environmental interest in accordance with the article 10 of the Law on Non-Ionizing Radiation Protection. 2. Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department .	
ED Zemun	Ministry of Agriculture and Environmental Protection No:353-03-00375/2017-18 dated 29.3.2017.	1. Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/10kV Beograd 12, Jurija Gagarina, Novi Beograd, through engaged legal entity authorized to carry testing of radiation level of sources of non-ionizing radiation of special environmental interest in accordance with the article 10 of the Law on Non-Ionizing Radiation Protection. 2. Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department.	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Fiduciary Services Department were conducted.
ED Beograd centar	Ministry of Agriculture and Environmental Protection No:353-03-00376/2017-18 dated 11.5.2017.	1. Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/10kV Beograd 15, Prote Mateje 10-16, through engaged legal entity authorized to carry testing of radiation level of sources of non-ionizing radiation of special environmental interest in accordance with the article 10 of the Law on Non-Ionizing Radiation Protection. 2. Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, , Assigned Operations Department.	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Fiduciary Services Department were conducted.
ED Beograd centar	Ministry of Agriculture and Environmental Protection No:353-03-00375/2017-18 dated 29.3.2017.	1. Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/10kV Beograd 14, Gospodar Jevremova, through engaged legal entity authorized to carry testing of radiation level of sources of non-ionizing radiation of special environmental interest in accordance with the article 10 of the Law on Non-Ionizing Radiation Protection.	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Fiduciary Services Department were conducted.

		2. Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, , Assigned Operations Department.	
ED Banovo Brdo	Ministry of Agriculture and Environmental Protection No:353-03-00934/2017-04 dated 20.12.2017.	1. Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/10kV Beograd 38, Đorđa Ognjanovića 20, Žarkovo, through engaged legal entity authorized to carry testing of radiation level of sources of non-ionizing radiation of special environmental interest in accordance with the article 10 of the Law on Non-Ionizing Radiation Protection. 2. Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, , Assigned Operations Department.	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Fiduciary Services Department were conducted.
ED Banovo Brdo	Ministry of Agriculture and Environmental Protection No:353-03-00936/2017-04 dated 20.12.2017.	1. Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/35kV Beograd 11, Vukasoviceva 75, Miljakovac, through engaged legal entity authorized to carry testing of radiation level of sources of non-ionizing radiation of special environmental interest in accordance with the article 10 of the Law on Non-Ionizing Radiation Protection. 2. Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department.	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Fiduciary Services Department were conducted.
ED Banovo Brdo	Ministry of Agriculture and Environmental Protection No:353-03-00933/2017-04 dated 20.12.2017.	1. Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/10kV Beograd 16, Patrijarha Joanikija 2, Rakovica, through engaged legal entity authorized to carry testing of radiation level of sources of non-ionizing radiation of special environmental interest in accordance with the article 10 of the Law on Non-Ionizing Radiation Protection. 2. Report on performed measuring of radiation level of non-ionizing	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Fiduciary Services Department were conducted.

		radiation is to be submitted to the assigned Inspector of the Minstry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Assigned Operations Department.	
ED Banovo Brdo	Ministry of Agriculture and Environmental Protection No:353-03-00935/2017-04 dated 20.12.2017.	1. Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/35 kV Beograd 2, Milorada Jovanovićq1qa bb, Žarkovo, through engaged legal entity authorized to carry testing of radiation level of sources of non-ionizing radiation of special environmental interest in accordance with the article 10 of the Law on Non-Ionizing Radiation Protection. 2. Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, , Assigned Operations Department.	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Fiduciary Services Department were conducted.
ED Obrenovac	Ministry of Agriculture and Environmental Protection No:353-03-00938/2017-04 dated 20.12.2017.	1. Perform electricity and magnetic fields measuring in surrounding residential buildings in the immediate vicinity of SS 110/35kV Beograd 10, Mislođinska 71, Mislođin, through engaged legal entity authorized to carry testing of radiation level of sources of non-ionizing radiation of special environmental interest in accordance with the article 10 of the Law on Non-Ionizing Radiation Protection. 2. Report on performed measuring of radiation level of non-ionizing radiation is to be submitted to the assigned Inspector of the Minstry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, , Assigned Operations Department.	Orders by Ministry of Agriculture and Environmental Protection, Sector for Environmental Protection Inspection, Fiduciary Services Department were conducted.

2. DISTRIBUTIONAL AREA NOVI SAD

Table 157 indicates all facilities and systems structure within DA NOVI SAD.

Table 157

DISTRIBUTIONAL AREA NOVI SAD											
Facilities and systems in 2017											
Electricity distribution Transormer substattion								**Electricity distribution network in km**			
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	193,460	14,100	207,560
								20 kV	995,280	415,590	1.410,870
ED SUBOTICA								10 kV	96,820	1,580	98,400
								1.0 kV	0,000	0,000	0,000
								0.4 kV	2.223,760	300,950	2.524,710
0	9	2	0	7	1.311	145	**1.474**	**Total:**	**3.509,320**	**732,220**	**4.241,540**
								110 kV	0,000	0,000	0,000
								35 kV	220,950	6,180	227,130
								20 kV	1.059,430	310,040	1.369,470
ED SOMBOR								10 kV	0,000	0,000	0,000
								1.0 kV	0,000	0,000	0,000
								0.4 kV	1.359,150	300,550	1.596,600
0	8	0	0	0	1.102	0	**1.110**	**Total:**	**2.639,530**	**616,770**	**3.193,200**
								110 kV	0,000	0,000	0,000
								35 kV	235,240	25,600	260,840
								20 kV	799,080	296,940	1.096,020
ED ZRENJANIN								10 kV	88,240	13,870	102,110
								1.0 kV	0,000	0,000	0,000
								0.4 kV	1.662,610	239,820	1.458,970
0	6	2	0	17	916	119	**1.060**	**Total:**	**2.785,170**	**576,230**	**2.917,940**
								110 kV	0,000	0,000	0,000
								35 kV	162,980	88,570	251,550
								20 kV	759,240	743,450	1.502,700
ED NOVI SAD								10 kV	99,800	69,160	168,960
								1.0 kV	0,000	0,000	0,000
								0.4 kV	2.405,09	1.039,300	3.444,390
0	9	6	0	19	1.649	161	**1.844**	**Total:**	**3427,110**	**1940,480**	**5367,600**
								110 kV	0,000	0,000	0,000
								35 kV	53,330	5,270	58,600
								20 kV	294,140	178,350	472,490
ED SREMSKA MITROVICA								10 kV	6,090	1,270	7,360
								1.0 kV	0,000	0,000	0,000
								0.4 kV	400,570	135,560	536,130

0	2	1	0	5	378	13	**399**	**Total:**	**754,130**	**320,450**	**1074,580**
ED RUMA								110 kV	0,000	0,000	0,000
								35 kV	0,000	0,000	0,000
								20 kV	600,710	494,810	1.095,520
								10 kV	0,000	0,000	0,000
								1.0 kV	0,000	0,000	0,000
								0.4 kV	1.183,120	173,180	1.356,300
0	27	0	0	1	896	0	**924**	**Total:**	**1.783,830**	**667,990**	**2.451,820**
ED PANCEVO								110 kV	0,000	0,000	0,000
								35 kV	226,800	22,860	249,660
								20 kV	821,370	355,600	1.176,970
								10 kV	78,700	20,600	99,300
								1.0 kV	0,000	0,000	0,000
								0.4 kV	1.977,050	564,600	2.541,650
0	7	2	0	10	889	197	**1.105**	**Total:**	**3.103,920**	**963,660**	**4.067,580**
TOTAL: DISTRIBUTION AREA NOVI SAD								110 kV	0,000	0,000	0,000
								35 kV	1.092,750	162,590	1.255,340
								20 kV	5.329,250	2.794,770	8.124,020
								10 kV	369,650	106,480	476,130
								1.0 kV	0,000	0,000	0,000
								0.4 kV	11.211,340	2.753,950	13.965,290
0	**68**	**13**	**0**	**59**	**741**	**635**	**7.916**	**Total:**	**18.002,990**	**5.817,790**	**23.820,780**

***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 2017, are shown in Table 158.

Table 158

DISTRIBUTION AREA NOVI SAD			
Overview and status of permits 2017			
Branch	**Obtained approvals and permits (Number and date)**	**New applications for obtaining new or extending existing permits**	**Note**
ED SUBOTICA			
Construction of LV CL Petefi Sandora in Subotica	ROP-SUB-857-ISAW-1/2017 from 18.01.2017	-	Decision on building approval
Construction of antenna pole at TS 110/35/20kV "Subotica 1"	ROP-SUB-7775-ISAW-1/2017 from 03.04.2017	-	Decision on building approval
Construction of STS-4 B. Vinogradi	ROP-SUB-8095-ISAW-1/2017 from 06.04.2017	-	Decision on building approval
Construction of 20кВ cable line and furnishing of 3TS-304 „Pozorište“	ROP-SUB-33520-ISAW-3/2017 from 06.04.2017	-	Decision on building approval

Construction of STS-388 with 20 and 0,4кВ cable lines in Subotica	ROP-SUB-12069-ISAW-1/2017 from 12.05.2017	-	Decision on building approval
Construction of 20 and 0,4 кВ cable lines and furnishing 3TC -300	ROP-SUB-33517-ISAW-3/2017 from 29.05.2017	-	Decision on building approval
Construction of the 20 kV, above ground mixed cable + 0.4 20 kV STS-4 Kevi	ROP-SEN-8091-ISAW-2/2017 from 21.06.2017	-	Decision on building approval
Construction of 20 / 04kV cable line and STS-5 Kevi	ROP-SEN-8088-ISAW-2/2017 from 21.06.2017	-	Decision on building approval
Construction of MBTS-35 Feketic and 20kV cable lines	ROP-MID-13575-ISAW-2/2017 from o16.06.2017	-	Decision on building approval
Construction of MBTS-19 Novi Zednik	ROP-SUB-14168-ISAWHA-2/2017 од 15.06.2017	-	Decision on building approval
Construction of MBTS -500 and 20kV cable lines in Bačka Topola	ROP-BTP-14161-ISAW-1/2017 from 23.05.2017	-	Decision on building approval
Construction of 20 kV CL from STS-1 Kavilo to the border with K.O. Utrine	ROP-BTP-9046-ISAW-2/2017 from 21.07.2017	-	Decision on building approval
Construction of 20 kV CL of future RP "Industry" to 20 kV CL "Fidelinka" Subotica	ROP-SUB-6427-ISAW-1/2017 from 07.08.2017	-	Decision on building approval
Construction of 20 kV CL from GRS in the settlement Utrine to the border with CM Gunaros	ROP-ADA-9043-ISAW-2/2017 from 16.08.2017	-	Decision on building approval
Construction of cable line 20 kV from the existing CRS-MB up to the border CM Novo Orahovo	ROP-SEN-9902-ISAW-2/2017 from 20.09.2017	-	Decision on building approval
Construction of LV 0,4 kV cable lines in the settlement Kevi	ROP-SEN-35165-ISAW-1/2017 from 14.11.2017	-	Decision on building approval
ED SOMBOR			
LV cable line for 11 Venac R.Putnika Sombor	ROP-SOM-1804-ISAWHA-2/2017, 07.02.2017	-	-
MBTS „Mala privreda„ BAC	ROP-BAC-2835-ISAW-1/2017, 09.02.2017	-	-
HV cable line „Unit 61“ Apatin	ROP-APA-21205-ISAW-1/2017 24.07.2017	-	-
STS „Liparski put“	ROP-KUL-15140-ISAW-5/2017 04.10.2017	-	-
PE and the fence at TS 110/20 SO 1	ROP-SOM-23797-ISAW-1/2017, 14.08.2017	-	-
LV cable for Staparski put 19 Sombor	ROP-SOM-19857-ISAW-3/2017, 01.12.2017	-	-
STS „ Jugoslovenska - Solunska“Sonta	ROP-APA-33006-ISAW-1/2017, 12.12.2017	-	-
LV cable for Uninonpromet Vrbas	ROP-VRB-33701-ISAW-2/2017, 14.12.2017	-	-
LV cable in D.Maksimovic street, Vrbas	ROP-VRB-33697-ISAW-2/2017, 18.12.2017	-	-

ED ZRENJANIN			
CABLE LINE 20 κV from RTS S-41 to 78 in Zrenjanin	351-13/2017-3-IV-05-02 from 23.01.2017.	-	-
ADAPTATION TS 35/20/10 „TITEL“	351-419/2016-IV-03 from 28.02.2017	-	-
CABLE LINE 20 κV from RTS -54 to 56 in Zrenjanin	351-13/2017-16-IV-05-02 from 07.03.2017	-	-
CABLE LINE 20 κV from RTS -52 to 54 in Zrenjanin	351-13/2017-17-IV-05-02 from 07.03.2017	-	-
CABLE LINE 20 κV in A.Sajber Street in Zrenjanin	351-13/2017-19-IV-05-02 from 07.03.2017	-	-
CABLE LINE 20 κV and STS „MELENACKI DRUM“	351-13/2017-33-IV-05-02 from 07.03.2017	-	-
LV NETWORK in B.Kidric Street in Torda	III-05-351-38/2017 from 25.05.2017	-	-
MBTS EB-41A, MBTS EB-11A, MV AND LV cable lines (INDUSTRIAL ZONE N.Milosevo)	IV-05-351-217 from 19.05.2017	-	-
LV cable lines from with KPK and OMM in Tosa Jovanovic Street in Zrenjanin (BIOELEKTRIK)	351-13/2017-47-IV-05-02 from 19.06.2017	-	-
RP AND SV CABLE in N.Kozarcima	III-09-351-8-37/2017 from 05.07.2017	-	-
ADAPTATION TS -1 B.V.SELO	III-09-351-8-88/2017 from 29.11.2017	-	-
ADAPTATION TS -4 B.V.SELO	III-09-351-8-89/2017 from 29.11.2017	-	-
ADAPTATION STS-3 RUSKO SELO	III-09-351-8-103/2017 from 19.12.2017	-	-
ADAPTATION STS -2 RUSKO SELO	III-09-351-8-104/2017 from 19.12.2017.	-	-
ADAPTATION STS -4 RUSKO SELO	III-09-351-8-106/2017 from 19.12.2017	-	-
ADAPTATION STS -6 RUSKO SELO	III-09-351-8-107/2017 from 22.12.2017	-	-
ADAPTATION STS -7 RUSKO SELO	III-09-351-8-108/2017 from 22.12.2017	-	-
ADAPTATION STS -8 RUSKO SELO	III-09-351-8-109/2017 from 25.12.2017	-	-
ADAPTATION STS -9 RUSKO SELO	III-09-351-8-110/2017 from 25.12.2017	-	-
ADAPTATION STS -10 RUSKO SELO	III-09-351-8-111/2017 from 25.12.2017	-	-
ADAPTATION STS -11 RUSKO SELO	III-09-351-8-112/2017 from 26.12.2017	-	-
ADAPTATION STS -12 RUSKO SELO	III-09-351-8-113/2017 from 26.12.2017	-	-

ADAPTATION STS -15 RUSKO SELO	III-09-351-8-114/2017 from 26.12.2017	-	-
ADAPTATION TS-5 B.V.SELO	III-09-351-8-115/2017 from 27.12.2017	-	-
ED NOVI SAD			
TS "Sonje Marinkovic" with HV and LV lines, Srbobran	ROP-SRB-4589-ISAW-1/2017 from 2.3.2017	-	Decision on building approval
Underground 20Kv line of the feeder "Sangaj" from TS 110/20/10 kV "Novi Sad 9", Novi Sad	ROP-NSD-6722-ISAW-1/2017 from 21.3.2017	-	Decision on building approval
Underground and overhead 20kV lines in Donje Sajlovo Street, Novi Sad	ROP-NSD-10954-ISAW-1/2017 from 27.4.2017	-	Decision on building approval
STS "Omladinska 2" with electro distributive network, Kac	ROP-NSD-13751-ISAW-2/2017 from 17.10.2017	-	Decision on building approval
Relocation of 20kV underground line in a part of the route between TS 110/20 kV „Novi Sad 5" and TS "Br. 2 Novo naselja 4", Novi Sad	ROP-NSD-2966-ISAW-1/2017 from 13.2.2107	-	Decision on building approval
Distributive 20kV network from MBTS "Devojacka" to GRS MV in Svetozara Markovica Street, Curug	ROP-ZAL-33103-ISAWHA-2/2017 from 24.2.2017	-	Decision on building approval
MBTS „Kardan" from MV and LV lines, Temerin	ROP-TEM-31445-ISAW-1/2017 from 12.10.2017	-	Decision on building approval
Overhead 20kV connection line for TS "P.D. Nova farma 1", Temerin	ROP-TEM-12095-ISAW-1/2017 from 10.5.2017	-	Decision on building approval
Underground 0,4kV lines for the facility in 10 Janka Veselinovica Street, Novi Sad	ROP-NSD-2817-ISAW-1/2017 from 10.2.2017	-	Decision on building approval
Construction of cable network in Ruđera Boskovica Street, Novi Sad	ROP-NSD-38193-ISAW-1/2017 from 12.12.2017	-	Decision on building approval
Distributive network 0,4kV in No.12 Novosadskog sajma street	ROP-NSD-2126-ISAW-1/2017 from 3.2.2017	-	Decision on building approval
STS "GAJIC" from MV and LV lines, Backa Palanka	ROP-BAP-6076-ISAW-2/2017 from 7.7.2017	-	Decision on building approval
STS "Bjelos", Backa Palanka	ROP-BAP-10953-ISAW-2/2017 from 15.11.2017	-	Decision on building approval
Distributive network 20kV to TS "UNIVEREXPORT 1", Novi Sad	ROP-NSD-3664-ISAW-1/2017 from 23.2.2017	-	Decision on building approval
Overhead LV network in Nova street in 103 Blok, Temerin	ROP-TEM-27975-ISAW-2/2017 from 19.1.2017	-	Decision on building approval
Reconstruction of the part ZTS "Grbavica", Novi Sad	ROP-NSD-288-CPI-1/2017 from 17.1.2017	-	Building permit
Distributive network 0,4kV at 133 Bulevar oslobodjenja, Novi Sad	ROP-NSD-317-ISAW-1/2017 from 11.1.2017	-	Decision on building approval
Underground 0,4kV distributive network in Skolska Street, Nova Gajdobra	ROP-BAP-13188-ISAW-2/2016 from 17.1.2017	-	Decision on building approval

Underground 0,4kV distributive network in nn Primorska street, Novi Sad	ROP-NSD-35134-ISAWHA-2/2017 from 9.1.2017	-	Decision on building approval
TS “Janka Veselinovica" with underground 20kV and 0,4kV distributive network, Novi Sad	ROP-NSD-18230-ISAWHA-3/2017 from 4.10.2017	-	Decision on building approval
STS "CAVIC" with overhead 20kV line, Backa Palanka	ROP-BAP-37404-ISAW-1/2017 from 1.12.2017	-	Decision on building approval
KBTS "Krilova" with underground 20 and 0,4kV distributive network, Novi Sad	ROP-NSD-36974-ISAW-1/2017 from 21.11.2017	-	Decision on building approval
TS "Stevana Sremca 2" with underground 20 and 0,4kV lines, Novi Sad	ROP-NSD-1659-ISAWHA-2/2017 from 3.2.2017	-	Decision on building approval
Overhead 20kV line for connection 20kV feeder "Vrdnik" and "Ledinci", Ledinci	ROP-NSD-8179-ISAW-1/2017 from 3.3.2017	-	Decision on building approval
Construction of underground 0,4kV network in the part of Sentandrejski road, Novi Sad	ROP-NSD-34332-ISAWHA-2/2016 from 31.1.2017	-	Decision on building approval
ZTS "Josifa Runjanina " with 20kV and 0,4kV lines, Novi Sad	ROP-NSD-13000-ISAW-1/2017 from 16.5.2017	-	Decision on building approval
Relocation of 20 kV line and 0,4kV pole for construction of the facility P.S. J.J.Zmaj", Ledinci	ROP-NSD-18100-ISAW-1/2017 from 26.6.2017	-	Decision on building approval
Underground 20kV line from TS "Veljka Vlahovica" to TS "Dositej Obradovic "and 0,4kV feeder from TS "Veljka Vlahovica", Rumenka	ROP-NSD-2968-ISAW-1/2017 from 13.2.2017	-	Decision on building approval
Underground 0,4kV lines for the facility in no.24 Bele njive street, Novi Sad	ROP-NSD-19234-ISAW-1/2017 from 6.7.2017	-	Decision on building approval
Underground 0,4kV line to the facility in nn Zeleznicka street from the planned TS "Industrija 3", Srbobran	ROP-SRB-32613-ISAW-1/2017 from 24.10.2017	-	Decision on building approval
STS "Blok 21" with related MV and LV network, Backi Jarak	ROP-TEM-37414-ISAW-1/2017 from 4.12.2017	-	Decision on building approval
Underground 0,4kV line for the facility in nn. Privrednikova Street , Novi Sad	ROP-NSD-31058-ISAW-2/2017 from 6.11.2017	-	Decision on building approval
Underground 0,4kV line for the facility at the corner of Koste Racina and Svete Kasalinovica street, Novi Sad	ROP-NSD-4660-ISAWHA-4/2017 from 12.7.2017	-	Decision on building approval
Underground 0,4kV line for the facility in Branka Radicevića 6 – 6a, Novi Sad	ROP-NSD-35142-ISAWHA-2/2017 from 4.11.2017	-	Decision on building approval
TS "Mala Karagača 2" with related 20 and 0,4kV underground lines, Petrovaradin	ROP-NSD-31371-ISAW-1/2017 from 13.10.2017	-	Decision on building approval
Underground 20kV lines for TS “Delta agrar”, Celarevo	ROP-BAP-15664-ISAW-1/2017 from 9.6.2017	-	Decision on building approval
Underground 20kV lines for working area Sever 2 and TS "Privrednikova 4" with MV and LV lines, Novi Sad	ROP-NSD-20608-ISAWHA-2/2017 from 19.7.2017	-	Decision on building approval
TS "Duvan 2" with 20 and 0.4kV underground lines, Novi Sad	ROP-NSD-8561-ISAW-1/2017 from 5.4.2017	-	Decision on building approval

Underground 20kV lines for TS "Skolski centar", Novi Sad	ROP-NSD-871-ISAWHA-2/2017 from 31.1.2017	-	Decision on building approval
Underground 0,4kV line for the facility in 22 Okrugiceva Street, Petrovaradin	ROP-NSD-573-ISAW-1/2017 from 16.1.2017	-	Decision on building approval
TS “Banijska 2" with related 20kV and 0.4kV lines, Novi Sad	ROP-NSD-14599-ISAW-1/2017 from 29.5.2017	-	Decision on building approval
Overhead 0.4kV network in 2 Nova street at Mali Beograd, Novi Sad	ROP-NSD-1629-ISAW-1/2017 from 31.1.2017	-	Decision on building approval
Overhead 0.4kV network at the branch of the Pasiceva street, Rakovac	ROP-BEO-34723-ISAW-1/2016 from 11.1.2017	-	Decision on building approval
Underground 0,4kV line for the facility in nn. Novosadska street, Celarevo	ROP-BAP-18089-ISAW-1/2017 from 25.7.2017	-	Decision on building approval
Underground 0,4kV line for the facility in 22 Nikole Tesle street, Temerin	ROP-TEM-1278-ISAW-3/2017 from 20.4.2017	-	Decision on building approval
Underground 0,4kV line for the facility in nn. Miroslava Prodanovica Micka Street, Novi Sad	ROP-NSD-12980-ISAW-1/2017 from 15.5.2017	-	Decision on building approval
Underground 20kV lines for TS “Lampone” (from TS "Drvno" to TS "Inoh"), Backi Petrovac	ROP-BPE-19445-ISAWHA-2/2017 from 8.8.2017	-	Decision on building approval
Underground 0,4kV line in Bratislavska street, Backi Petrovac	ROP-BPE-13347-ISAW-1/2017 from 17.5.2017	-	Decision on building approval
Underground 0,4kV line for the facility in 19 and 21 Kosmajska street, Novi Sad	ROP-NSD-3736-ISAW-1/2017 from 23.2.2017	-	Decision on building approval
Underground 0,4kV network on the move Beljesevo, Sremski Karlovci	ROP-SKA-7983-ISAW-1/2017 from 31.3.2017	-	Decision on building approval
Underground 0,4kV line for PS " Jovan Jovanović Zmaj", Ledinci	ROP-NSD-24107-ISAW-1/2017 from 16.8.2017	-	Decision on building approval
Underground 0,4kV lines from MBTS "Panonija UBD", Backi Petrovac	ROP-BPE-14447-ISAW-1/2017 from 30.5.2017	-	Decision on building approval
Underground 0,4kV line for the facility in 60 Narodne revolucije Street, Backi Petrovac	ROP-BPE-14817-ISAWHA-2/2017 from 2.6.2017	-	Decision on building approval
Underground 0,4kV line for the facility at the corner of the Jul Bogdana and Tekelijine Street, Novi Sad	ROP-NSD-5899-ISAW-1/2017 from 14.3.2017	-	Decision on building approval
Underground 0,4kV network on the move Krivac from STS "Karas", Sremski Karlovci	ROP-SKA-3872-ISAW-1/2017 from 1.3.2017	-	Decision on building approval
Underground 0,4kV line for the facility in 34-36 Gunduliceva street, Novi Sad	ROP-NSD-7976-ISAW-1/2017 from 30.3.2017	-	Decision on building approval
Underground 0,4kV network in Vojvode Misica street, Pakovac	ROP-BEO-28984-ISAWHA-2/2017 from 17.11.2017	-	Decision on building approval
Underground 0,4kV line for PS "Ivo Andric", Budisava	ROP-NSD-6805-ISAW-1/2017 from 28.3.2017	-	Decision on building approval

Underground 0,4kV line for the facility of children`s shelter in nn Klisanski put street, Novi Sad	ROP-NSD-2099-ISAW-1/2017 from 2.2.2017	-	Decision on building approval
Underground 0,4kV lines for warehouse and workshop in nn Sentandrejski put street, Novi Sad	ROP-NSD-1408-ISAW-1/2017 from 26.1.2107	-	Decision on building approval
Underground 20kV lines for TS "Sportska hala Petrovaradin", Petrovaradin	ROP-NSD-13345-ISAWHA-2/2017 from 25.5.2017	-	Decision on building approval
Underground 0,4kV line from TS 35/10kV "Centar" to TS "Vojvode Bojovica" , Novi Sad	ROP-NSD-25859-ISAW-1/2017. from 30.8.2017	-	Decision on building approval
TS "Kraljevica Marka 3", Novi Sad	ROP-NSD-34889-ISAW-1/2017 from 20.11.2017	-	Decision on building approval
Underground 0,4kV feeder and overhead 0,4kV network in Stevana Todorovica Street, Novi Sad	ROP-NSD-5350-ISAW-1/2017 from 10.3.2017	-	Decision on building approval
Underground 0,4kV lines for warehouse (II phase) in nn Sentandrejski put, Novi Sad	ROP-NSD-1421-ISAW-1/2017 from 26.1.2917	-	Decision on building approval
Underground 20kV line for TS "FTN-gradiliste", Novi Sad	ROP-NSD-572-ISAW-1/2017 from 16.1.2017	-	Decision on building approval
Underground 0,4kV line for the facility in 13a Cirila i Metodija Street, Novi Sad	ROP-NSD-28974-ISAWHA-2/2017 from 6.10.2017	-	Decision on building approval
Underground 20kV line for TS "Nektar 2", Backa Palanka	ROP-BAP-36965-ISAW-1/2017 from 1.12.2017	-	Decision on building approval
Underground 0,4kV line for the facility in no. 3 Vase Ostojica Street, Novi Sad	ROP-NSD-3733-ISAW-1/2017 from 23.2.2017	-	Decision on building approval
Underground 0,4kV line for the facility in 117 Futoska Street, Novi Sad	ROP-NSD-2398-ISAWHA-2/2017 from 10.2.2017	-	Decision on building approval
Underground 0,4kV line for the facility in no. 4-6 Lukijana Musickog Street, Novi Sad	ROP-NSD-612-ISAW-1/2017 from 16.1.2017	-	Decision on building approval
Overhead LV network in nn Nova Street (parallel to the Aleksandra Adamovica Street), Futog	ROP-NSD-8947-ISAW-1/2017 from 7.4.2017	-	Decision on building approval
Underground 0,4kV network in Grigovacki put street, Sremska Kamenica	ROP-NSD-7705-ISAW-1/2017 from 29.3.2017	-	Decision on building approval
STS "Svetozara Markovica" with related MV and LV network, Backo Gradiste	ROP-BEC-37759-ISAWHA-2/2017 from 22.12.2017	-	Decision on building approval
STS "Srbobranski put" with related MV and LV network, Backo Gradiste	ROP-BEC-30591-ISAW-1/2017 from 27.11.2017	-	Decision on building approval
STS "Narodnooslobodilacke vojske" with related LV network, Backo Gradiste	ROP-BEC-29009-ISAW-1/2017 from 29.9.2017	-	Decision on building approval
STS "Crkva" with related LV network, Backo Gradiste	ROP-BEC-13869-ISAW-2/2017 from 12.10.2017	-	Decision on building approval
Underground 0,4kV line for the facility in no 16-18 Cara Dusana Street, Novi Sad	ROP-NSD-2836-ISAW-1/2017 from 13.2.2017	-	Decision on building approval

TS „Okrugiceva“ with MV and LV network, Petrovaradin	ROP-NSD-16205-ISAW-1/2017 from 16.6.2017	-	Decision on building approval
STS "Save Dimitrijevica“ with related MV and LV network, Sajkas	ROP-TIT-7318-ISAW-2/2017 from 25.9.2017.	-	Decision on building approval
Underground 0,4kV network at the part Kip, Sremska Mitrovica	ROP-NSD-14153-ISAW-1/2017 from 6.7.2017	-	Decision on building approval
CLTS "Skola" with related MV and LV network,, Kisac	ROP-NSD-13868-ISAWHA-2/2017 from 4.7.2017	-	Decision on building approval
Underground 0,4kV line in 17-19 Matica Srpska street for the facility in no.2 Sterijina street, Novi Sad	ROP-NSD-23604-ISAWHA-2/2017 from 8.9.2017	-	Decision on building approval
Underground 0,4kV network at the part Karagaca (32 and 33 Nova Street) Petrovaradin	ROP-NSD-20090-ISAWHA-2/2017 from 17.7.201.	-	Decision on building approval
Underground 0,4kV lines for the facility in nn. Somborska street (Bulevar Patrijarha Pavla), Novi Sad	ROP-NSD-35183-ISAW-2/2017 from 27.12.2017	-	Decision on building approval
Overhead 0,4kV network in the extension of the Marsla Tita Street, Lug	ROP-BEO-27320-ISAW-1/2017 from 12.9.2017	-	Decision on building approval
Underground 0,4kV line for the facility in 178e Petefi Sandor Street, Novi Sad	ROP-NSD-6581-ISAW-1/2017 from 21.3.2017	-	Decision on building approval
Underground 20Kv lines for TS "VIN FARM", Ravno selo	ROP-VRB-29649-ISAWHA-2/2017 from 20.11.2017	-	Decision on building approval
Underground 0,4kV line in Nova street, Novi Sad	ROP-NSD-18172-ISAW-1/2017 from 28.6.2017	-	Decision on building approval
Underground 0,4kV line for the facility of Pre-school institution in 1 Novosadska street, Sirig	ROP-TEM-13344-ISAW-2/2017 from 20.9.2017	-	Decision on building approval
STS "Sime Solaje" with underground cable line 0,4kV and overhead LV network with SKS conductor 20 and 0,4 kV, Mladenovo	ROP-BAP-17425-ISAW-2/2017 from 19.12.2017	-	Decision on building approval
TS "Ilariona Ruvaraca 2" with related underground 20kV and 0,4kV lines, Novi Sad	ROP-NSD-28838-ISAW-1/2017 from 26.9.2017.	-	Decision on building approval
Underground 20kV lines for TS "Gradiliste KM", Novi Sad	ROP-NSD-1003-ISAWHA-2/2017 from 27.1.2017	-	Decision on building approval
Underground line for the premise No.3 in 27 Novaka Radonjica, Novi Sad	ROP-NSD-9752-ISAW-1/2017 from 20.4.2017	-	Decision on building approval
Underground 0,4kV line for the facility in nn Koci Ivana street, Novi Sad	ROP-NSD-14820-ISAW-1/2017 from 31.5.2017	-	Decision on building approval
Underground 0,4kV network for the facility in 24-26 Branka Bajica Street, Novi Sad	ROP-NSD-5535-ISAW-1/2017 from 10.3.2017	-	Decision on building approval
Underground 0,4kV network for the facility in 70 Novosadski put Улици, Veternik	ROP-NSD-31275-ISAW-1/2017 from 27.10.2017	-	Decision on building approval
Underground 0,4kV lines between TS "FKL 1", TS "P. D. Petefi silos" and TS "Termovent SC", Temerin	ROP-TEM-38156-ISAW-1/2017 from 11.12.2017	-	Decision on building approval

Underground 0,4Kv line for the facility in 19 Petefi Sandor Street, Temerin	ROP-TEM-17422-ISAW-1/2017 from 22.6.2017	-	Decision on building approval
STS "Siplak", Bac	ROP-BAC-17291-ISAW-2/2017 from 31.10.2017	-	Decision on building approval
Underground 0,4kV for the facility at the corner of the Novosadski put and Tri bagrema streets, Veternik	ROP-NSD-15682-ISAW-1/2017 from 7.6.2017	-	Decision on building approval
Underground 0,4Kv line for the facility in nn Nova Street, Novi Sad	ROP-NSD-14227-ISAWHA-2/2017 from 23.6.2017	-	Decision on building approval
Underground 0,4Kv line for the facility in nn Djordja Beslina, Kovilj	ROP-NSD-19078-ISAW-3/2017 from 3.8.2017	-	Decision on building approval
Underground 20kV line from TS "Ortopedija" to nthe existing 10Kv feeder "Zagrebacka", Novi Sad	ROP-NSD-24108-ISAW-1/2017 from 4.8.2017	-	Decision on building approval
Underground 20kV network for TS "Stadion", Backa Palanka	ROP-BAP-13054-ISAW-1/2017 from 18.5.2017	-	Decision on building approval
Underground 0,4Kv lines for the facility in 27 Bulevar oslobodjenja Street, Novi Sad	ROP-NSD-33286-ISAW-1/2017 from 9.11.2017	-	Decision on building approval
Underground 20kV line from TS "Privrednikova 3" to TS "Unija papir servis", Novi Sad	ROP-NSD-29010-ISAW-1/2017 from 26.9.2017	-	Decision on building approval
Underground 0,4Kv line for the facility in 33 Janka Cmelika, Novi Sad	ROP-NSD-32184-ISAW-1/2017 од 26.10.2017	-	Decision on building approval
Underground 0,4Kv lines for the facility in 152 Mitropolita Stratimirovica Street, Sremski Karlovci	ROP-SKA-30346-ISAW-1/2017 од 6.10.2017	-	Decision on building approval
TS "Njive Futog" from MV and LV network, Futog	ROP-NSD-30882-ISAW-1/2017 from 12.10.2017	-	Decision on building approval
Underground 0,4kV line for the facility in 1, 3 and 5 Kopernikova street, Novi Sad	ROP-NSD-23265-ISAW-1/2017 from 3.8.2017	-	Decision on building approval
Underground LV network in 12 Nova street, Novi Sad	ROP-NSD-28134-ISAW-1/2017 from 18.09.2017	-	Decision on building approval
Underground 0,4kV line in 32 Zlatariceva Street , Petrovaradin	ROP-NSD-31431-ISAW-1/2017 from 17.10.2017	-	Decision on building approval
TS "PUB 2" with related 20 and 0.4kV lines, Novi Sad	ROP-NSD-17072-ISAW-1/2017 from 21.6.2017	-	Decision on building approval
TS " Privrednikova 4" with MV and LV lines, Novi Sad	ROP-NSD-20608-ISAWHA-2/2017 from 19.7.2017	-	Decision on building approval
Underground 0,4Kv lines for the facility in nn.Djakona Avakuma Street, Novi Sad	ROP-NSD-32978-ISAW-1/2017 from 6.11.2017	-	Decision on building approval
TS "Mornarska 3" with related MV and LV network, Novi Sad	ROP-NSD-32671-ISAW-1/2017 from 6.11.2017	-	Decision on building approval
Underground 0,4Kv lines for the facility in 15 Studenicka street, Novi Sad	ROP-NSD-37361-ISAW-1/2017 from 7.12.2107	-	Decision on building approval

Uderground 0.4 kV line for the facility at the parcel no.1955/1 CM Rumenka, Rumenka,	ROP-NSD-35485-ISAW-1/2017 from 1.12.2017	-	Decision on building approval
Underground 20kV line for TS "Karin Komerc MD", Veternik	ROP-NSD-17762-ISAWHA-3/2017 from 30.8.2017	-	Decision on building approval
TS "Branka Copica" with MV and LV network, Novi Sad	ROP-NSD-34487-ISAW-1/2017 from 15.11.2017	-	Decision on building approval
Uderground 0.4 kV line for the facility in 34 Patrijarha Rajacica Street, Petrovaradin	ROP-NSD-21200-ISAW-1/2017 from 20.7.2017	-	Decision on building approval
Underground 20kV line for TS "Gradiliste NEPI", Novi Sad	ROP-NSD-20481-ISAW-1/2017 from 13.7.2017	-	Decision on building approval
Underground 20kV line between TS "Ilija Garasanina" and TS "Vododvod", Novi Sad	ROP-NSD-11048-ISAW-1/2017 from 28.4.2017	-	Decision on building approval
Uderground 0.4 kV lines for the facility in nn Bate Brkica Street, Novi Sad	ROP-NSD-35731-ISAW-1/2017 from 21.11.2017	-	Decision on building approval
STS "Palih boraca" with MV and LV network, Gardinovci	ROP-TIT-31579-ISAW-1/2017 from 16.10.2017	-	Decision on building approval
Construction of 20 and 0,4 kV network in Dositejeva Street and in the part of Zoltana Cuce Street, Becej	ROP-BEC-37212-ISAW-1/2017 from 30.11.2017	-	Decision on building approval
Uderground 0.4 kV line for the facility in 3 Okrugiceva Street, Petrovaradin	ROP-NSD-23608-ISAW-1/2017 from 10.8.2017	-	Decision on building approval
Uderground 0.4 kV line in Carice Milice Street, Futog	ROP-NSD-33269-ISAW-1/2017 from 13.11.2017	-	Decision on building approval
Uderground 0.4 kV line for the facility in 19 Radnicka Street, Novi Sad	ROP-NSD-33293-ISAW-1/2017 from 4.11.2017	-	Decision on building approval
Uderground LV network in the part of Petefi Sandor Streeet, Temerin	ROP-TEM-36192-ISAW-1/2017 од 22.11.2017	-	Decision on building approval
Uderground 0.4 kV network for the premises in 131 Bulevar Oslobodjenja Street, Novi Sad	ROP-NSD-27274-ISAW-3/2017 from 23.10.2017	-	Decision on building approval
Uderground 0.4 kV line for the facility in 32 Djordja Zlicica Street, Novi Sad	ROP-NSD-29110-ISAW-3/2017 from 22.12.2017	-	Decision on building approval
Uderground 0.4 kV line for the facility in 6 and 8 Vase Pelagica Street, Novi Sad	ROP-NSD-36151-ISAW-1/2017 from 24.11.2017	-	Decision on building approval
Uderground 0.4 kV line for the facility in 13a Presernova Street, Novi Sad	ROP-NSD-35782-ISAWHA-2/2017 from 28.11.2017	-	Decision on building approval
Uderground 0,4kV lines for the business facility in nn Omladinska Street, Beocin	ROP-BEO-27000-ISAW-1/2017 from 11.9.2017	-	Decision on building approval
Underground 20kV lines for TS "Zezelj", Futog	ROP-NSD-28422-ISAWHA-2/2017 from 26.9.2017	-	Decision on building approval
Uderground 0.4 kV line for the facility in nn Kisacki put, Rumenka	ROP-NSD-37755-ISAWHA-1/2017 from 29.12.2017	-	Decision on building approval

Underground 20kV lines for TS "Sani-нем", Novi Sad	ROP-NSD-36443-ISAW-1/2017 from 28.11.2017	-	Decision on building approval
Underground 20kV line for TS "Gradiliste NEPI 2", Novi Sad	ROP-NSD-20481-ISAW-1/2017 from 13.7.2017	-	Decision on building approval
STS "Centar" with HV and LV network, Begec	ROP-NSD-35628-ISAW-1/2017 from 15.11.2017	-	Decision on building approval
Uderground 0.4 kV network for the facility at the corner of Jug Bogdana and Tekelijina Streets, Novi Sad	ROP-NSD-39495-ISAW-1/2017 from 25.12.2017	-	Decision on building approval
UZTS "Sremska 2" Novi Sad	ROP-NSD-20622-ISAWHA-4/2017 from 30.8.2017	-	Decision on building approval
Underground 20 and 0,4 kV lines, at the cadastral plot number 908/1 CM Novi Sad II, Novi Sad	ROP-NSD-7081-ISAWHA-6/2017 from 23.8.2017	-	Decision on building approval
Underground 20kV lines for TS"TERMONA",Celarevo	ROP-BAP-8771-ISAW-2/2017 from 5.12.2017	-	Decision on building approval
ED SREMSKA MITROVICA			
LV overhead network 0,4 Kv in Branka Radicevica and Vuka Karadzica street in Molovino	ROP-SID-2915-ISAW-1/2017 14.02.2017	-	Decision on the construction works` approval
STS 20/0,4kV "Teodora Bekica", CL 20Kv and CL 0,4kV - S. Mitrovica	ROP-SMI-8653-ISAW-1/2017 10.04.2017	-	Decision on the construction works` approval
LV overhead network 0,4kV in Cvetnoj street - S. Mitrovica	ROP-SMI-8950-ISAW-1/2017 11.04.2017	-	Decision on the construction works` approval
Cable line 20kV from the coupling at MBTS "Pontonski most“ to MBTS "Benzinska stanica"- S. Mitrovica	ROP-SMI-10209-ISAW-1/2017 20.04.2017.	-	Decision on the construction works` approval
STS 10(20)/0,4 kV "Bosutska" in 10th March street in Bosut	ROP-SMI-11494-ISAW-1/2017 08.05.2017	-	Decision on the construction works` approval
LV overhead network 0,4 kV in 1st November Street in Sremska Mitrovica (from the no. 188 to the end of the street)	ROP-SMI-12073-ISAW-1/2017 11.05.2017	-	Decision on the construction works` approval
Cable line 20kV from MBTS 20/0,4kV "G-2" to MBTS 20/0,4kV "Djure Kisa" in Sid	ROP-SID-12844-ISAW-1/2017 15.05.2017	-	Decision on the construction works` approval
LV underground network 0,4 kV in Petra Runjanina Street - S. Mitrovica	ROP-SMI-17663-ISAW-1/2017 23.06.2017	-	Decision on the construction works` approval
STS 10(20)/0,4 kV "Kralja Petra I" and MV 10(20) and 0,4 kV in Erdevik	ROP-SID-17771-ISAW-1/2017 27.06.2017	-	Decision on the construction works` approval
STS 20/0,4 kV "CS Ostic" with overhead connection line 20 kV at Mandjelos	ROP-SMI-8449-ISAW-6/2017 26.05.2017	-	Decision on the construction works` approval
MV 20 and 0,4 kV in the part of Fruskogorska street in Kukujevci	ROP-SID-18920-ISAW-1/2017 04.07.2017	-	Decision on the construction works` approval
STS 20/0,4 kV "Vinarija Milosevicwith connection cable line 20 kV in Veliki Radinci Великим	ROP-SMI-7721-ISAW-2/2017 26.06.2017	-	Decision on the construction works` approval

Reconstruction of LV overhead network 0,4 k V in the streets: Karadjordjeva, Cara Lazara, Vase Stajica and Svetog Save in Sid	ROP-SID-23102-ISAW-1/2017 03.08.2017	-	Decision on the construction works` approval
LV overhead network 0,4 kV in Cerska street in Lacarku	ROP-SMI-23088-ISAW-1/2017 04.08.2017	-	Decision on the construction works` approval
Cable line 20kV from MBTS "Sutjeska" to ZTS 20/0,4 kV "Maksim Gorki"in Sremska Mitrovica	ROP-SMI-24024-ISAW-1/2017 11.08.2017	-	Decision on the construction works` approval
STS 20/0,4 kV " RBS Vip i Telenor" with the connection 20Kv cable line in KM Batrovci	ROP-SID-24129-ISAW-1/2017 14.08.2017	-	Decision on the construction works` approval
STS 20(10)/0,4 kV "Zem-zadruga" with the double CL 20 kV in S. Mitrovica	ROP-SMI-26062-ISAW-1/2017 04.09.2017	-	Decision on the construction works` approval
STS 20/0,4 kV "Bunari sever" with cable line 20 kV near Grgurevci	ROP-SMI-33442-ISAW-1/2017 31.10.2017.	-	Decision on the construction works` approval
STS 20/0,4 kV " Bunari jug“ with cable line 20 kV near Grgurevci	ROP-SMI-33422-ISAW-1/2017 31.10.2017	-	Decision on the construction works` approval
STS 20(10)/0,4 kV „Mile Palic“ with connection cable line 20 kV in nn Visnjevacka street- S. Mitrovica	ROP-SMI-29148-ISAW-1/2017 27.09.2017	-	Decision on the construction works` approval
MV unit in MBTS 10(20)/0,4 kV "Plastika Markovic" and connection cable line 20 kV - S. Mitrovica	ROP-SMI-32796-ISAW-2/2017 27.11.2017.	-	Decision on the construction works` approval
STS 20/0,4 kV "Planeta" and connection CL 20 kV in Fruskogorska and 20. oktobra street - Sid	ROP-SID-34553-ISAW-1/2017 08.11.2017	-	Decision on the construction works` approval
Cable line 0,4 kV from STS „Branka Erica“ to KPK and POMM in Branka Eric street –Sid	ROP-SID-37033-ISAW-1/2017 04.12.2017	-	Decision on the construction works` approval
Cable line 20kV from ZTS 20/0,4kV "Mokranjceva" to MBTS 20/0,4kV "6.december" - Sid	ROP-SID-37823-ISAW-1/2017 06.12.2017	-	Decision on the construction works` approval
CL 0,4 kV from the future KPK EV-2P on the facade of the residential facility in no 83 Jupiterova street to KPK and MOMM at the facility „A“ and to KPK and MOMM at the facility „B“ in no.13 and 15 („Primip“ LTD SM) - S. Mitrovica	ROP-SMI-242-ISAW-1/2017 16.01.2017	-	Decision on the construction works` approval
CL 0,4 kV from MBTC „Parobrodska“ to KPK and MOMM the residential and business premises, part between the Puskinova, Promenada i Parobrodska streets („Gradeks“ ltd.) - S. Mitrovica	ROP-SMI-244-ISAW-1/2017 16.01.2017	-	Decision on the construction works` approval
CL 0,4 kV from TS „Branka Radicevica“ to KPK and MOMM at the residential facility in Branka Radicevica Street („Boracay“ ltd.) - S. Mitrovica	ROP-SMI-2888-ISAW-1/2017 20.02.2017	-	Decision on the construction works` approval
Double CL 0,4 kV from the coupling on the cable line from MBTS „Zarko Zrenjanin“ to two KPK EV-1P with POMM-4 at SABP 600 for residential facility connection in no. 19 Cvetna stret - S. Mitrovica	ROP-SMI-11497-ISAW-1/2017 08.05.2017	-	Decision on the construction works` approval
CL 0,4 kV from MBTS „Obdaniste“ to KPK EV-1P and KPK EV-2P at the facility „A“ and to KPK EV-2P at the facility „C“ in no. 75 Kralja Petra I Street („Anras Investment“ ltd.) - S. Mitrovica	ROP-SMI-12377-ISAW-1/2017 12.05.2017.	-	Decision on the construction works` approval
Cable lines 0,4 kV to KPK and MOMM at the residential facility in Timocke divizije street – S. Mitrovica	ROP-SMI-30888-ISAW-1/2017 13.10.2017	-	Decision on the construction works` approval

Double CL 0,4 kV to cable coupling 0,4 kV to KPK and MOMM at residential – business facility in no. 19 Svetog Dimitrija streeet („GIP“ LTD) - S. Mitrovica	ROP-SMI-32447-ISAW-1/2017 25.10.2017	-	Decision on the construction works` approval
CL 0,4 kV from cable coupling in no.2 Svetog Dimitrija streeet to KPK and POMM on the facade of the facility in no. 4 Svetog Dimitrija Street (RF PIO and RF ZO) - S. Mitrovica	ROP-SMI-39403-ISAW-1/2017 26.12.2017	-	Decision on the construction works` approval
ED RUMA			
STS "Baranjska" with cable line 20 κV in Maradiku	ROP-IND-3186-ISAW-2/2017 21.05.2017	-	Decision on contractors works pursuant to Article 145
STS "Kalakaca" with 20 kV and 1Kv cable line in Krcedin	ROP-IND-32948-CPI-1/2017 30.10.2017	-	Construction permit
STS "Prigrevica" with connecting CL 20 κV in Novi Karlovci	ROP-IND-12667-CPI-2/2017 23.10.2017	-	Construction permit
STS "Sovljak" and connecting CL 20 Kv in Velika Remeta	ROP-IRI-34226-ISAW-1/2017 07.11.2017	-	Decison pursuant to Article 145.
STS "Partizanska" with LV cable line in Dec	ROP-PEC-29542-ISAW-2/2017 from 22.02.2017	-	Decison pursuant to Article 145.
STS "Simanovacka 2" in Sremski Mihaljevci	ROP-PEC-12397-CPI-4/2017 01.03.2017	-	Decison pursuant to Article 145.
CL 20 κV from ZTS "Vodovod" to DL pole for Vrdnik in Ruma	ROP-RUM-24103-ISAW-1/2017 from 14.08.2017	-	Decison pursuant to Article 145.
Double CL 20 κV and MV substation in ZTS "Asfaltna baza nova " in Ruma	ROP-RUM-21663-ISAW-2/2017 from 06.04.2017	-	Decison pursuant to Article 145.
KTS 20/0,4 kV "Teksas" with MV and LV cable line in Ruma	ROP-RUM-39710-ISAW-1/2017 from 28.12.2017	-	Decison pursuant to Article 145.
Connecting CL 1 kV for supply customers in the region TS "Ciglana" in Ruma	ROP-RUM-19908-ISAW-1/2017 from 12.07.2017	-	Decison pursuant to Article 145.
STS "Jezero" and connecting CL 20 Kv in Pavlovci	ROP-RUM-19317-ISAW-1/2017 from 06.07.2017	-	Decison pursuant to Article 145.
STS "Mujina" with connecting CL 20 kV line in D.Petrovci	ROP-RUM-1829-ISAW-1/2017 from 01.02.2017	-	Decison pursuant to Article 145.
STS "Stejanovacki put" and LV cable line in Ruma	ROP-RUM-29576-ISAWHA-2/2017 from 16.10.2017	-	Decison pursuant to Article 145.
STS "Sabacki put" and connecting CL 20 kV in Klenk	ROP-RUM-6185-ISAW-1/2017 from od 20.03.2017	-	Decison pursuant to Article 145.
1 cable line from TS STS M Pandurovic for Stojica guvno in Belegisu	ROP-SPZ-33472-ISAW-2/2017 from 14.06.2017	-	Decison pursuant to Article 145.
Cable line 20 kV and STS "P. Codanovica" in Stari Banovci	ROP-SPZ-33467-ISAW-2/2017 from 05.07.2017	-	Decison pursuant to Article 145.
CL 20 kV from STS "Borisa Kidrica" to TS "Gatarici" u Krnjesevcima	ROP-SPZ-24031-ISAW-2/2017 from 23.03.2017	-	Decison pursuant to Article 145.
Cable line 20 kV from STS „Pionirska"- STS "Hilandarska" - MBTS "Karadjordjeva" Nova Pazova	ROP-SPZ-15662-ISAW-2/2017 from 20.03..2017	-	Construction permit
Cable line 1 k V from TS "Dom zdravlja" for the building in 23 Cara Dusana Street in N.Pazova	ROP-SPZ-15014-ISAW-2/2017 from 20.03.2017	-	Decison pursuant to Article 145.
MBTS 20/0,4 kV "Centar" with MV and LV line in Surduk	ROP-SPZ-26096-ISAW-2/2017 from 23.11.2017	-	Decison pursuant to Article 145.
MBTS 20/0,4 kV "D Truck puls" with double CL 20 kV in Krnjesevci	ROP-SPZ-19249-ISAWHA-3/2017 from 20.10.2017	-	Decison pursuant to Article 145.
LV cable line from MBTS "Park" for Vladimira Hurbana Street in St.Pazova	ROP-SPZ-30465-ISAW-4/2017 from 02.10.2017	-	Decison pursuant to Article 145.
STS "Centar novi" with MV and LV line in Krnjesevci	ROP-SPZ-23216-ISAW-2/2017 from 23.11.2017	-	Decison pursuant to Article 145.

ED PANCEVO			
Decision on building approval (Cabling transformer regions STS "Dolovo 18")	ROP-PAN-453-ISAW-1/2017 13.1.2017	-	-
Decision on the approval for construction works (HV cable line Pancevo 3 - TS skolski centar)	ROP-PAN-207-ISAW-1/2017 9.1.2017	-	-
Works' submission (MBTS "Gavrila Principa")	ROP-VRS-855-WA-1/2017 19.1.2017	-	Completed
Works' submission (MBTS "Sterijina 2")	ROP-VRS-856-WA-1/2017 19.1.2017	-	Completed
Location condition (LV pole in Sterijina street in Pancevo)	ROP-PAN-34152-LOC-1/2016 4.1.2017	-	Completed
Location condition (STS "Ohridska" in Pancevo)	ROP-PAN-34925-LOC-1/2016 19.1.2017	-	-
Decision on the approval for construction works (Каблирање дела улице Димитрија Туцовића)	ROP-PAN-1099-ISAW-1/2017 23.1.2017	-	-
Decision on the approval for construction works (HV cover cable)	ROP-PAN-783-ISAW-1/2017 18.1.2017	-	Completed
Location condition (KTS "Mileticeva" u Vrscu)	ROP-VRS-34930-LOCH-2/2017 31.1.2017	-	-
Decision on the approval for construction works (HV and LV cable in Banijska u Pancevu)	ROP-PAN-1882-ISAW-1/2017 2.2.2017	-	Completed
Location condition (HV cable for TS „Dolovo – livade")	ROP-PAN-34143-LOCH-1/2016 19.1.2017	-	Completed
Works' submission (HV cable Pancevo 3 – Skolski centar)	ROP-PAN-2628-WA-1/2017 8.2.2017	-	-
Location condition (HV and LV cable in Deliblatska pescara)	ROP-ALI-34926-LOC-1/2016 13.2.2017	-	-
Works' submission (MBTS "Zapadna zona" Plandiste)	ROP-PLA-3198-WA-1/2017 14.2.2017	-	-
Location condition (KBTS "Vuka Karadzica in Bela Crkva")	ROP-BCR-1101-LOC-1/2017 20.2.2017	-	Completed
Location condition (KBTS "Proleterska" in Bela Crkva)	ROP-BCR-1100-LOC-1/2017 20.2.2017	-	Completed
Works' submission (Cabling of transformers' region STS "Dolovo 18")	ROP-PAN-3945-WA-1/2017 24.2.2017	-	-
Works' submission (Cabling part of the Dimitrija Tucovica street)	ROP-PAN-3950-WA-1/2017 24.2.2017	-	-
Works' submission (Cable from STS „Vlasinska")	ROP-PAN-3946-WA-1/2017 24.2.2017	-	-
Works' submission (Cables in Banijska street)	ROP-PAN-3947-WA-1/2017 24.2.2017	-	Completed
Decision on the approval for construction works (LV pole in Sterijina street in Pancevo)	ROP-PAN-4498-ISAW-1/2017 1.3.2017	-	-
Decision on the approval for construction works (Terminal in Cumiceva)	ROP-PAN-4504-ISAW-1/2017 2.3.2017	-	Completed
Decision on the approval for construction works (Termiinal in Svetog Save)	ROP-PAN-4500-ISAW-1/2017 2.3.2017	-	Completed
Decision on the approval for construction works (MBTS "Banatski Karlovac 16")	ROP-ALI-4506-ISAW-1/2017 9.3.2017	-	-
Decision on the approval for construction works (KTS "Crepaja 14")	ROP-KOA-4913-ISAW-1/2017 9.3.2017	-	Completed
Location condition (HV cable in Debeljaca)	ROP-KOA-2568-LOC-1/2017 9.3.2017	-	-
Location condition (HV cable in Padini)	ROP-KOA-2567-LOC-1/2017 9.3.2017	-	-
Works' submission (HV cover cable)	ROP-PAN-7594-WA-1/2017 27.3.2017	-	Completed
Works' submission (LV pole in Sterijina street in Pancevo)	-	-	Completed
Works' submission (Terminal in Cumiceva)	-	-	Completed

Works' submission (Termiinal in Svetog Save)	-	-	Completed
Location condition (LV cable from TS „T cable from TS "Tesla 9" in Pancevo)	ROP-PAN-8527-LOC-1/2017 24.4.2017	-	-
Location condition (HV cable on the Bavanistanski road)	ROP-PAN-8525-LOC-1/2017 20.4.2017	-	-
Decision on construction works'approval (STS "Crpna Stanica - Opovo 1")	ROP-OPO-4506-ISAW-1/2017 24.4.2017	-	Completed
Works' submission (HV cable for TS „Livade" in Dolovo)	ROP-PAN-11132-WA-1/2017 27.4.2017	-	Completed
Location condition (LV cable from STS „BNS 22")	ROP-PAN-8097-LOC-1/2017 28.4.2017	-	-
Works' submission (MBTS "B. Karlovac 16")	ROP-ALI-12294-WA-1/2017 9.5.2017	-	-
Decision on construction works'approval (KTS "Zarka Zrenjanina 2")	ROP-PAN-12279-ISAW-1/2017 10.5.2017	-	Completed
Location condition (7 Jula in Pancevo)	ROP-PAN-9684-LOC-1/2017 8.5.2017	-	Completed
Works' submission (KTS "Crepaja 14")	ROP-KOA-11130-WA-1/2017 28.4.2017	-	Completed
Works' submission (STS "Crpna stanica – Olovo 1")	ROP-OPO-12837-WA-1/2017 11.5.2017	-	Completed
Decision on construction works'approval (MBTS "Severna zona 2")	ROP-PAN-12282-ISAW-1/2017 11.5.2017	-	-
Decision on construction works'approval (STS "Ohridska")	ROP-PAN-12281-ISAW-1/2017 12.5.2017	-	-
Works' submission (KTS "Zarka Zrenjanin 2")	ROP-PAN-13735-WA-1/2017 19.5.2017	-	Completed
Location condition (LV network in Stadionska street in Bela Crkva)	ROP-BCR-12974-LOC-1/2017 25.5.2017	-	-
Decision on construction works'approval (MBTS "Zarka Fogarasa")	ROP-PAN-7604-ISAW-8/2017 12.5.2017	-	Completed
Decision on construction works'approval (MBTS "Sterijina")	ROP-PAN-13267-ISAW-1/2017 19.5.2017	-	-
Works' submission (MBTS "Sterijina")	ROP-PAN-15807-WA-1/2017 5.6.2017	-	-
Works' submission (MBTS "Zarka Fogarasa")	ROP-PAN-15806-WA-1/2017 5.6.2017	-	Works in progress
Location conditions (HV cable in Stevana Supljikca Street)	ROP-PAN-12976-LOC-1/2017 2.6.2017	-	Completed
Location conditions (LV for Magistrates court)	ROP-PAN-8965-LOCH-2/2017 7.6.2017	-	Completed
Location conditions (HV cable MBTS „Kotez 19" - MBTS "Kotez 20")	ROP-PAN-12650-LOCH-2/2017 30.5.2017	-	Completed
Location conditions (STS " Crpna stanica – Olovo 2")	ROP-OPO-13719-LOCH-1/2017 12.6.2017	-	-
Location conditions (STS "Dobrica 7")	ROP-ALI-13505-LOC-1/2017 15.6.2017	-	Completed
Location conditions ("LV cable from MBTS "Streliste 27")	ROP-PAN-15814-LOC-1/2017 19.6.2017	-	Completed
Location conditions (STS " Centa 13")	ROP-ZRE-15812-LOC-1/2017 30.6.2017	-	-
Location conditions (HV cable in Bela Crkva)	ROP-BCR-15809-LOC-1/2017 30.6.2017	-	-
Location conditions (LV cable from TS „Nemanjina" in Pancevo)	ROP-PAN-19070-LOC-1/2017 13.7.2017	-	-
Location conditions (HV cable for Starcevo)	ROP-PAN-15811-LOC-1/2017 27.6.2017	-	-
Location conditions (HV cable Tesla 9 - Tesla 14)	ROP-PAN-19079-LOC-1/2017 24.7.2017	-	-
Location conditions (MBTS "Jovana Popovica 2)	ROP-BCR-17048-LOC-1/2017 7.7.2017	-	-

Location conditions (MBTS "Severna zona 3")	ROP-PAN-11164-LOC-1/2017 10.5.2017	-	-
Decision on construction works'approval (LV in Zelengora settlement)	ROP-PAN-24273-ISAW-8/2017 15.8.2017	-	Works in progress
Decision on construction works'approval (LV for Magistrates court)	ROP-PAN-25385-ISAW-1/2017 25.8.2017	-	Completed
Decision on construction works'approval (HV cable Kotez 19 – Kotez 20)	ROP-PAN-26764-ISAW-1/2017 5.9.2017	-	Completed
Decision on construction works'approval ((HV cable S. Šupljikca- Tesla 13)	ROP-PAN-26765-ISAW-1/2017 5.9.2017	-	Completed
Decision on construction works'approval (HV cable for feeder Margitska – Cokolada)	ROP-VRS-26765-ISAW-1/2017 20.9.2017	-	Completed
Decision on construction works'approval (LV from MBTS „Streliste 27"	ROP-PAN-28777-ISAW-1/2017 21.9.2017	-	Completed
Location conditions (STS "Vladimirovac 13")	ROP-ALI-26770-LOC-1/2017 26.9.2017	-	-
Decision on construction works'approval (LV cable from STS "БНС 22")	ROP-PAN-26104-ISAW-1/2017 25.8.2017	-	-
Works'submission (LV cable from STS "БНС 22")	ROP-PAN-28919-WA-1/2017 21.9.2017	-	-
Decision on construction works'approval (LV cable for the building I. Garasanina 8)	ROP-PAN-26102-ISAW-1/2017 25.8.2017	-	-
Works'submission (LV cable for the building I. Garasanina 8)	ROP-PAN-28924-WA-1/2017 21.9.2017	-	-
Works'submission (HV cable Kotez 19 - Kotez 20)	ROP-PAN-28923-WA-1/2017 21.9.2017	-	Completed
Works'submission (LV cable for the building I. Garasanina 8)	ROP-PAN-28924-WA-1/2017 21.9.2017	-	-
Decision on construction works'approval (HV cable from TS S. Supljikca - TS Tesla 13)	ROP-PAN-26765-ISAW-1/2017 5.9.2017	-	Completed
Works'submission (HV cable from TS S. Supljikca - TS Tesla 13)	ROP-PAN-28921-WA-1/2017 21.9.2017	-	Completed
Decision on construction works'approval (HV cable in Padina)	ROP-KOA-30852-ISAW-1/2017 13.10.2017	-	-
Decision on construction works'approval (HV cable in Debeljaca)	ROP-KOA-30850-ISAW-1/2017 13.10.2017	-	-
Location condition (KTS "Sterijina" Pancevo)	ROP-PAN-27092-LOC-1/2017 27.9.2017	-	-
Decision on construction works'approval (Cabling of the 7 Jula street in Pancevo)	ROP-PAN-31660-ISAW-1/2017 16.10.2017	-	Completed
Decision on construction works'approval (LV cables from TS "Nemanjuina" in Pancevo)	ROP-PAN-33873-ISAW-1/2017 1.11.2017	-	-
Location condition (LV network in Matije Gupca street in Starcevo)	ROP-PAN-29733-LOC-1/2017 20.10.2017	-	-
Location condition (MBTS "Narodna Basta" in Pancevo)	ROP-PAN-31658-LOC-1/2017 6.11.2017	-	-
Decision on construction works'approval (HV cable from MBTS "Tesla 9" to MBTS "Tesla 14")	ROP-PAN-35443-ISAW-1/2017 14.11.2017	-	-
Decision on construction works'approval (MBTS "Mileticeva" u Vrscu)	ROP-VRS-36184-ISAW-1/2017 23.11.2017	-	-
Decision on construction works'approval (KTS "Zarka Fogarasa in Pancevo)	ROP-PAN-7604-ISAWHA-13/2017 23.11.2017	-	Works in progress
Decision on construction works'approval (LV network in Stadionska street u Bela Crkva)	ROP-BCR-35444-ISAW-1/2017 28.11.2017	-	-
Works'submission (KTS " Zarka Fogarasa" in Pancevo)	ROP-PAN-37833-WA-1/2017 6.12.2017	-	Works in progress
Location conditions ((LV for Kvrzica in Kovin)	ROP-KOV-37835-LOC-1/2017 12.12.2017	-	-
Location conditions (HV cable Debeljaca - Sefkerin (Opovo))	ROP-OPO-36186-LOC-1/2017 13.12.2017	-	-

Location conditions ((STS "Omoljica 22")	ROP-PAN-36457-LOC-1/2017 13.12.2017	-	-
Decision on construction works'approval (MBTS "Jovana Popovica 2")	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 Debeljaca - Sefkerin (Kovacica))	ROP-KOA-36187-LOC-1/2017 19.12.2017	-	-

2.2. Monitoring and Environmental Impact

Environmental impact factors for DA Novi Sad, which haven't been completely included in monitoring, are:

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

2.2.1. Electromagnetic Fields

During 2017 electromagnetic field measurements are performed as indicated in Table 159.

Tabla 159

DISTRIBUTION AREA NOVI SAD			
Electromagnetic fields in 2017			
Branch	**Measurement subject**	**Magnetic field Vmax (μT)**	**Electric field Emax (кV/m)**
ED SUBOTICA	During 2017 electromagnetic field measurements have not been performed.		
ED SOMBOR	During 2017 electromagnetic field measurements have not been performed.		
ED ZRENJANIN	ТС "14" Житиште 20/0,4 кV	13,63	0,129
ED NOVI SAD	ТС „ Лаза Костић“ 20/04 кV	1,96	/
	ТС „ Јерменска“ 20/04 кV	1,73	/
ED SREMSKA MITROVICA	During 2017 electromagnetic field measurements have not been performed.		
ED RUMA	During 2017 electromagnetic field measurements have not been performed.		
ED PANCEVO	During 2017 electromagnetic field measurements have not been performed.		

2.2.2. Environmental noise

Table 160 indicates measured and relevant environmental noise levels data for 2017.

Table 160

DISTRIBUTION AREA NOVI SAD				
Noise level in 2017 (dB)(A)				
Limit values of noise indicators Decree on noise indicators, limit values, methods for assessing noise indicators, disturbing and harmful effects of environmental noise, „Official Gazette of RS" №. 75/10			**Day**	**Night**
	In the open air	**Areas for recreation, hospital zones and rehabilitation, cultural and historical sites, large parks**	**50**	**40**
		Tourist areas, camps and school zones	**50**	**45**
		Strictly residential areas	**55**	**45**
		Business-residential areas, trading – residential areas and children playgrounds	**60**	**50**
		City Center, commercial, administrative area with apartments, zones along highways and city roads	**65**	**55**
		Industrial, warehouse and service areas and transport terminals without residential buildings	**On the limit of this zone noise level must not exceed the limit value in the zone with which it borders**	

ED SOMBOR	There were no environmental noise measurements performed in 2017					
Measurement points						
MEASURED VALUES						
GVI						
ED SUBOTICA	There were no environmental noise measurements performed in 2017					
Measurement 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						
Measurement 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						
Measurement 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						
Measurement 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						
ED SREMSKA MITROVICA	There were no environmental noise measurements performed in 2017					
Measurement 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						
Measurement 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						
ED ZRENJANIN	There were no environmental noise measurements performed in 2017					
Measurement 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						
Measurement 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						
ED RUMA	There were no environmental noise measurements performed in 2017					
Measurement 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						
Measurement 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						
Measurement 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						

ED NOVI SAD						
Measurement points	KBTS „ Jermenska“ 20/04kV day		KBTS „ Jermenska“ 20/04kV evening		KBTS „ Jermenska“ 20/04kV night	
Bedroom - ground floor	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	23	23	22	22	21	21
GVI	55		55		45	
Measurement points	КБТС „ Јерменска“ 20/04kV дан		КБТС „ Јерменска“ 20/04kV вече		КБТС „ Јерменска“ 20/04kV ноћ	
Outdoors - in front of substation	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	40	40	42	42	40	40
GVI	55		55		45	
Measurement 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						
ED PANCEVO						
Measurement 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						

2.2.3. Waste

Characterization, categorization and partial sale of waste in 2017 are given in Table 161.

.

Table 161

DISTRIBUTION AREA NOVI SAD												
Waste in 2017												
№	**RULEBOOK ON CATEGORIES, TESTING AND CLASSIFICATION OF WASTE Official Gazette RS No. 56/10 from 10th August 2010**	**INDEX NUMBER**	**UNIT**	**Branch**							**Total**	**NOTE**
				ED SUBOTICA	**ED SOMBOR**	**ED ZRENJANIN**	**ED NOVI SAD**	**ED SREMSKA MITROVICA**	**ED RUMA**	**ED PANČEVO**	**Total Distribution Area Novi Sad**	
					AMOUNTS							
1.	Waste toner for printing other than that listed in 08 03 17	08 03 18	t	0,142	0,000	0,000	0,080	0,015	0,000	0,060	**0,297**	-
2.	Other oils for insulation and heat transfer	13 03 10*	t	1,329	3,800	1,530	16,660	0,750	0,000	0,600	**24,669**	Transformer oil
				0,000	0,000	0,000	0,000	0,000	0,000	0,009	**0,009**	Waste kits for the detection of PCBs - uncontaminated
3.	Other emulsions	13 08 02*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,000**	Oily water from oily pits
4.	Packaging containing remains of hazardous substances or contaminated with hazardous substances	15 01 10*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,048	**0,048**	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	0,000	0,000	0,000	0,000	**0,000**	Waste absorption resources with oil and heavy fuel oil, oily gravel
6.	Waste tires	16 01 03	t	0,260	0,835	0,000	0,000	0,280	1,540	0,000	**2,915**	Waste tires

7.	Waste vehicles that do not contain liquids and other hazardous substances	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 metals	16 01 17	t	3,667	0,570	9,140	66,940	27,447	0	6,155	**113,919**	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
12.	Rejected equipment other than specified in 16 02 09 to 16 02 13	16 02 14	t	1,600	0,000	0,000	0,000	1,076	0,000	0,000	**2,676**	Waste meters
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,000**	Waste transformers not containing oils
				0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,000**	Electrical devices
				0,146	0,000	0,000	0,000	0,060	0,000	0,000	**0,206**	Measurin cabinets
				0,000	0,000	0,000	6,740	0,000	0,000	0,000	**6,740**	Measuring devices (ammeters, voltmeters)
				22,428	0,100	0,000	0,000	0,000	0,000	0,000	**22,528**	Disconnector 20 kV
				1,540	0,000	0,000	0,000	0,000	0,000	0,000	**1,540**	LV and HV units
				0	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	0,000	0,000	0,000	0,000	0,000	**0,000**	Batteries
14.	Waste containing oil	16 07 08*	t	0,000	0,000	0,010	0,000	0,000	0,000	0,000	**0,010**	Waste kits for testing transformer oil on PCB
15.	Oily water	16 10 01		38,640	11,000	0,000	0,000	0,000	0,000	0,000	**49,640**	Oily water from oily pit
16.	Concrete	17 01 01	t	15,500	49,620	56,680	47,150	1,260	0,000	8,460	**178,670**	Concrete poles
17.	Wood	17 02 01	t	0,900	14,564	0	13,320	4,775	15,000	0,000	**48,559**	Wooden poles - poles

				0,000	0,000	0,000	0,000	0,015	11,570	0,000	**11,585**	Waste mixed wood
18.	Plastic	17 02 03	t	0,000	0,741	0,000	0,000	0,000	0,000	0,000	**0,741**	-
19.	Glass, plastic and wood containing hazardous substances or contaminated by dangerous substances	17 02 04*	t	1,680	0,000	7,200	0,000	0,000	0,000	0,000	**8,880**	Wooden poles with impregnation
20.	Copper bronze brass	17 04 01	t	0,000	0,000	5,180	0,000	0,000	0,000	0,000	**5,180**	Wooden poles with impregnation
				0,168	0,000	0,000	6,070	0,220	0,000	0,538	**6,996**	Waste and scrap of copper and brass
				1,833	2,972	0,000	2,550	0,093	1,160	0,000	**8,608**	Waste copper
21.	Aluminum	17 04 02	t	0,000	0,000	1,140	0,000	0,010	0,000	0,000	**1,150**	Waste cooper cables
				0,190	0,320	0,070	24,820	0,270	0,347	0,723	**26,740**	Waste aluminum
22.	Iron and steel	17 04 05	t	0,000	0,000	0,000	0,000	0,000	16,640	0,000	**16,640**	Waste pieces of equipment TS
23.	Mixed metals	17 04 07	t	2,375	4,402	0,000	0,000	2,270	3,313	5,217	**17,577**	Al - Fe
24.	Cables containing oil, tar and other hazardous substances	17 04 10*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,000**	Oily cable
25.	Oily gravel	17 05 03*		0,000	0,000	0,000	0,000	0,000	0,000	11,800	**11,800**	-
26.	Insulation materials other than specified in 17 06 01 and 17 06 03	17 06 04	t	9,110	9,970	2,360	25,800	22,260	7,700	8,952	**86,152**	Waste ceramics insulators
27.	Construction 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 panels
28.	Paper and card board	20 01 01	t	1,500	1,661	0,320	0,000	0,000	0,000	0,000	**3,481**	-
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	0,000	0,000	0,000	0,000	0,004	0,000	0,000	**0,004**	Fluorescent pipes, light balls containing mercury
31.	Rejected electrical and electronic equipment other than that listed in 20 01 21 and 20 01 23 and 20 01 35 containing hazardous components	20 01 35*	t	0,138	0,000	0,000	0,000	0,400	0,000	0,000	**0,538**	Waste computers, keyboards, monitors, electronic meters
32	Bulky waste	20 03 07	t	1,960	0,000	0,000	0,000	0,000	0,000	0,000	**1,960**	Waste office furniture

33	Waste soil and concrete contaminated with PCB oil	17 05 03*	t	447,730	0,000	0,000	0,000	0,000	0,000	0,000	**447,730**	-
34.	Switch yards	16 01 17	t	3,770	0,000	0,000	0,000	0,000	0,000	0,000	**3,770**	-

2.2.4. Surface, Ground Waters and Soil Monitoring

Surface, ground waters monitoring as well as soil monitoring in 2017 is not defined- covered by tests at the level of the entire distribution area, but only in the ED Zrenjanin, as shown in Table 162.

Table 162

DISTRIBUTION AREA NOVI SAD									
THE RESULTS OF PHYSICAL - CHEMICAL LAND TESTS IN 2017									
ED ZRENJANIN									
Soil	**Tags methods**	**Units**	**Monitoring**						**Note**
Parameter			**Surface water**	**MDK**	**Underground waters**	**MDK**	**Soil**	**MDK**	**The highest measured values are given**
							TS "14" Zitiste		
Date							**12.12.17'**		
Air temperature									
Water temperature	1.1.1.-S								
Fuzziness	1.1.69-S								
pH	1.1.6-S								
Nitrates	1.1.52-S								
Nitrites	1.1.53-S								
Ammonium ion	1.1.18-S								
Хлориди	1.1.36-S								
Consumption of $KMnO_4$	1.1.10-S								
Detergents anionic	1.1.28-S								
Phosphates	1.1.31-S								
Oxigen	1.1.14-S								
HPK	1.1.11-S								
BPK_5	1.1.15-S								
The content of organic matter	ИМ						18,68		
The rest of unfiltered water vapor	1.1.7-C								
The rest of the fumes filtered water	1.1.7-C								
The suspended matter	1.1.9-C								

Sedimentary matter	1.1.8-C								
The content of organic matter									
Phenols	1.1.29-C								
Mineral oils	VM 056						382	90,75	Concentration that is higher than the limit value, but lower than the concentration which can indicate a serious contamination
Polychlorinated biphenyls	VM 052						0,03	0,04	

*IM-Internal Method

2.3. Monitoring of the working environment, occupational safety and health protection

Reports on occupational safety and health protection for 2017 include the following elements:

- **Working environment monitoring**
  - working environment noise measurement
  - working environment electromagnetic fields
  - working environment parameters
- **Safety**
  - training
  - workl injuries
- **Health**

2.3.1. Working environment monitoring

- **Working environment noise measurement**

The results of measurements of noise levels in 2017 are shown in Table 163.

Table 163

DISTRIBUTION AREA NOVI SAD			
Noise in working environment in 2017			
Branch	**Unit**	**Recorded noise level in work rooms, (dB)**	**Permitted noise level in (dB (A))**
ED PANCEVO	Measurements were not performed in 2017		
ED RUMA	Measurements were not performed in 2017		
ED SREMSKA MITROVICA	Measurements were not performed in 2017		
ED SOMBOR	Measurements were not performed in 2017		
ED SUBOTICA	Measurements were not performed in 2017		
ED ZRENJANIN	Measurements were not performed in 2017		
ED NOVI SAD	Underground lines preparation workshop	74 ± 2,20	85
	Underground lines workshop	69 ± 2,10	85
	Workshop 110 kV	75 ± 2,30	85

	Workshop of public lighting	76 ±2,30	85
	Electrical repair workshop	69 ±2,10	85
	Computing and Printing center	80 ±2,40	85

- **Working environment electromagnetic fields**

Electromagnetic fields measurements were not performed in 2017.

- **Working environment parameters**

Working environment parameters are given in Table 164.

Table 164

DISTRIBUTION AREA NOVI SAD																		
Working environment parameters in 2017																		
Branch /Facility	Number of tested	Number of working environments where parameters exceed permissible limits		Number of working environments where parameters are within permissible limits		Total number of recorded parameters	Number of parameters exceeding permissible limit		Distribution of unsatisfactory parameters									
									Dust		Harmful gasses		Noise		Vibrations		Micro climate	
	Number	Number	%	Number	%	Number	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
ED SUBOTICA	Measurements were not performed in 2017																	
ED SOMBOR	Measurements were not performed in 2017																	
ED ZRENJANIN	Measurements were not performed in 2017																	
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	Measurements were not performed in 2017																	
ED S.MITROVICA	Measurements were not performed in 2017																	
ED PANCEVO	Measurements were not performed in 2017																	
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

Chemical hazards are given in Table 165.

Table 165

DISTRIBUTION AREA NOVI SAD				
Chemical hazards in working environment for 2017				
Branch	**Working place**	**Detected chemical compounds**	**Registered level of chemical hazards in workplaces. (mg/m3)**	**Permitted level of chemical identification ± measurement uncertainty (mg/ m3)**
ED NOVI SAD	Underground lines preparation workshop	benzene	0,01	3,25
		toluene	0,02	192
		n-hexane	0,16	72
	Underground lines workshop	vinyl chloride	0,10	7,77
	Workshop 110 kV	ethyl acetate	0,02	1400
		iso-propanol	0,16	980
		acetone	0,03	1210
	Workshop of public lighting	ethyl acetate	0,07	1400
		iso-propanol	0,06	980
		acetone	0,01	1210
		xylene	0,08	221
	Electrical repair workshop	benzene	0,15	3,25
		n-hexane	1,30	72
	Printing center	styrene	0,18	215
	Overhead lines workshop	toluene	0,01	192
		n-hexane	0,03	72
	SS Maintenance workshop 20/10/0,4 kV	iso-propanol	0,01	980
		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 workshop	ethyl acetate	0,01	1400
		iso-propanol	0,12	980
		acetone	0,02	1210

2.3.2. Safety

- **Training**

Training data are given in table 166.

Table 166

DISTRIBUTION AREA NOVI SAD						
Training in 2017						
No.	Branch	Number of employees	Planned for training		Trained	
			Number	%	Number	%
1.	ED Novi Sad	147	61	41,50	59	96,72
2	ED Subotica	103	22	21,36	20	90,91
3	ED Sombor	53	24	45,28	24	100,00
4	ED Zrenjanin	73	21	28,77	21	100,00
5	ED Ruma	52	6	11,54	6	100,00
6	ED Sremska Mitrovica	22	8	36,36	8	100,00
7	ED Pančevo	68	40	58,82	40	100,00
8	HQ	206	16	7,77	14	87,50
9	TOTAL: DISTRIBUTION AREA NOVI SAD	**724**	**198**	**27,35**	**192**	**96,97**

- **Work injuries**

The state of injuries in 2017 is presented in Table 167.

Table 167

DISTRIBUTION AREA NOVI SAD						
Work injuries in 2017						
Branch	Number of employees	Injuries - number of employees ratio				
		light	serious	fatal	Total	%
ED Novi Sad	147	3	0	0	3	2,04
ED Subotica	103	1	1	0	2	1,94
ED Sombor	53	0	0	0	0	0,00
ED Zrenjanin	73	1	0	0	1	1,37
ED Ruma	52	1	0	0	1	1,92
ED Sr. Mitrovica	22	0	0	0	0	0,00
ED Pančevo	68	2	0	0	2	2,94
HQ	206	8	0	0	8	3,88
TOTAL: DISTRIBUTION AREA NOVI SAD	**724**	**16**	**1**	**0**	**17**	**2,35**

2.3.3 . Health

Periodical medical examinations of employees shown in Table 168 are carried out regularly for new workers and the employees working under special conditions.

Table 168

DISTRIBUTION AREA NOVI SAD											
Work capability in 2017											
Branch /Facility	Employees number	Branch /Facility				Branch /Facility					
		Referred to examination		Examined/ Referred		Referred to examination		Examined/ Referred		Referred to examination	
		No.	%	No.	%	No.	%	No.	%	No.	%
ED Novi Sad	147	76	51,70	69	90,79	65	94,20	3	4,35	0	0,00
ED Subotica	103	52	50,49	52	100,00	52	100,00	0	0,00	0	0,00
ED Sombor	53	12	22,64	12	100,00	11	91,67	1	8,33	0	0,00
ED Zrenjanin	73	34	46,58	34	100,00	33	97,06	1	2,94	0	0,00
ED Ruma	52	24	46,15	24	100,00	23	95,83	1	4,17	0	0,00
ED Sr. Mitrovica	22	10	45,45	10	100,00	10	100,00	0	0,00	0	0,00
ED Pančevo	68	44	64,71	44	100,00	44	100,00	0	0,00	0	0,00
HQ	206	22	10,68	22	100,00	21	95,45	1	4,55	0	0,00
TOTAL: DISTRIBUTION AREA NOVI SAD	**724**	**274**	**37,85**	**267**	**97,45**	**259**	**97,00**	**7**	**2,62**	**0**	**0,00**

2.4. Public complaints

Public complaints in 2017 are shown in Table 169.

Table 169

DISTRIBUTION AREA NOVI SAD				
Public complaints in 2017				
Branch /Facility	Objection (number and date) and who has submitted	Subject of the objection	Measures taken	Note
ED SUBOTICA	No public complaints			
ED SOMBOR	No public complaints			
ED ZRENJANIN	By order of the inspector no. 140-501-52 / 2017-06-158 from 08/08/2017 which followed requests of citizens	TS "14" Zitiste	The analysis of the testing area and non-ionizing radiation performed	At two measurement points soil contamination with mineral oil has been detected.
ED NOVI SAD ED RUMA	By order of the inspector no. XIV-501-345/17 from 12/07/2017 which followed requests of citizens	TS „Laza Kostic“ Novi Sad	Measurement of el. field and magnet induction. In the vicinity of el.energetic plants and power lines in stationary mode	Based on the position of potential zones it was concluded that the levels of magnetic induction can not exceed the prescribed reference limit level even in the case of the maximum load of the transformer.

	By order of the inspector no. XIV-501-501-/17 from 21/08/2017 which followed requests of citizens	TS „ Jermenska“ Novi Sad	Measurement of el. field and magnet induction. In the vicinity of el.energetic plants and power lines in stationary mode	The tests were performed by measuring. The values of the strength of the el. field in the vicinity of the TS are negligible in the case of maximum load of the transformer reference threshold level can not be exceeded.
ED S.MITROVICA	No public complaints			
ED PANCEVO	No public complaints			
ED SUBOTICA	No public complaints			
DISTRIBUTION AREA NOVI SAD TOTAL:	3 public complaints			

3. DISTRIBUTION AREA KRALJEVO

Table 170 indicates the structure of all facilities and systems within DA Kraljevo.

Table 170

DISTRIBUTION AREA KRALJEVO												
Facilities and system in 2016												
Branch	**Electricity distribution substations**								**Distribution network length in km**			
	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 ARANDJELOVAC									110 kV	0,000	0,000	0,000
									35 kV	50.590	0,000	50.590
									20 kV	24.880	30.760	55.640
									10 kV	432.200	18.810	451.010
									1,0 kV	0,000	0,000	0,000
									0,4 kV	1.555,400	60.100	1.615,500
Total	0	0	0	2	8	66	445	**521**	**Total**	**2.063,070**	**109,670**	**2.172,740**
ED VALJEVO									110 kV	0,000	0,000	0,000
									35 kV	108,000	33,000	141,000
									20 kV	0,000	0,000	0,000
									10 kV	880,000	171,000	1.051,000
									1,0 kV	0,000	0,000	0,000
									0,4 kV	4.488,000	111,000	4.599,000
Total	0	0	3	0	18	0	912	**933**	**Total**	**5.476,000**	**315,000**	**5.791,000**
ED JAGODINA									110 kV	0,000	0,000	0,000
									35 kV	264,000	15,600	279,600
									20 kV	460,800	101,400	562,200
									10 kV	630,000	168,200	798,200
									1,0 kV	0,000	0,000	0,000
									0,4 kV	5.800,000	705,800	6.505,800
Total	2	0	3	2	31	154	1.286	**1.478**	**Total**	**7.154,800**	**991,000**	**8.145,800**
ED KRALJEVO									110 kV	27,480	0,000	27,480
									35 kV	182,438	10,100	192,538
									20 kV	92,000	20,000	112,000
									10 kV	936,792	232,.307	1.169,099
									1,0 kV	0,000	0,000	0,000
									0,4 kV	3.999,000	201,100	4.200,100
Total	2	0	3	1	21	170	1.072	**1.269**	**Total**	**5.237,710**	**463,507**	**5.701,217**
ED KRUSEVAC									110 kV	61,879	0,000	61,879
									35 kV	197,993	15,128	213,121
									20 kV	0,000	0,000	0,000
									10 kV	5,321	10,897	16,218
									1,0 kV	11,270	1,700	12,970
									0,4 kV	4,900	1,300	6,200
Total	0	0	1	4	22	0	12	**39**	**Total**	**281,363**	**29,025**	**310,406**

ED LAZAREVAC									110 kV	21,290	0,000	21,290
									35 kV	127,000	6,050	133,050
									20 kV	0,000	0,000	0,000
									10 kV	712,000	96,850	808,850
									1,0 kV	0,000	0,000	0,000
									0,4 kV	3.100,000	83,000	3.183,000
Total	0	0	1	1	12	0	804	**818**	**Total**	**3.960,290**	**185,900**	**4.146,190**
ED LOZNICA									110 kV	21,180	0,000	21,180
									35 kV	186,000	20,000	206,000
									20 kV	0,000	0,000	0,000
									10 kV	732,238	126,976	859,214
									1,0 kV	0,000	0,000	0,000
									0,4 kV	3.072,300	66,473	3.138,773
Total	0	0	2	2	17	0	909	**930**	**Total**	**4.011,718**	**213,419**	**4.225,167**
ED NOVI PAZAR									110 kV	32,630	0,000	32,630
									35 kV	92,000	0,600	92,600
									20 kV	6,000	4,000	10,000
									10 kV	630,000	70,000	700,000
									1,0 kV	0,000	0,000	0,000
									0,4 kV	1.680,000	16,000	1.696,000
Total	0	0	1	1	9	24	603	**638**	**Total**	**2.440,630**	**90,600**	**2.531,230**
ED UZICE									110 kV	0,000	0,000	0,000
									35 kV	373.623	25.231	398,854
									20 kV	0,000	0,000	0,000
									10 kV	2.205,170	350.590	2.555,760
									1,0 kV	0,000	674.608	674.608
									0,4 kV	6.504,035	0,000	6.504,035
Total	0	0	4	3	45	0	2.133	**2.185**	**Total**	**9.082,828**	**1.050,429**	**10.133,257**
ED CACAK									110 kV	1.166	0,000	1,166
									35 kV	298,025	40,579	338,604
									20 kV	0,000	0,000	0,000
									10 kV	1.657,212	269,466	1.926,678
									1,0 kV	0,000	0,000	0,000
									0,4 kV	6.207,656	212,753	6.420,409
Total	0	0	4	2	36	0	1.900	**1.942**	**Total**	**8.164,059**	**522,798**	**8.686,857**
ED SABAC									110 kV	0,000	0,000	0,000
									35 kV	94,000	27,000	121,000
									20 kV	635,000	97,000	732,000
									10 kV	277,000	67,000	344,000
									1,0 kV	0,000	0,000	0,000
									0,4 kV	2.248,000	170,000	2.418,000
Total	0	2	0	4	8	741	291	**1.046**	**Total**	**3.254,000**	**361,000**	**3.615,000**

TOTAL: DISTRIBUTION AREA KRALJEVO									110 kV	165,625	0,000	165,625
									35 kV	1.973,669	193,288	2.166,957
									20 kV	1.218,680	253,160	1.471,840
									10 kV	9.097,933	1.582,096	10.680,029
									1,0 kV	11,270	676,308	687,578
									0,4 kV	38.659,291	1.627,526	40.286,817
Total:	**4**	**2**	**22**	**22**	**227**	**1.155**	**10.367**	**11.799**	**Total:**	**51.126,468**	**4.332,378**	**55.458,846**

3.1. Overview and Permits Status

Overview and status of permits, licenses and other required approvals, as well as new applications for permits in 2017 are presented in Table 171.

Table 171

DISTRIBUTION AREA KRALJEVO			
Overview and status of permits in 2017			
Branch	**Obtained approvals and permits (number and date)**	**Applications for obtaining of new or extension of the existing permits**	**Note**
ED ARANDJELOVAC АРАНЂЕЛОВАЦ			
OHTL 10KV Krstaca-Plaskovac	-	ROP-TOP-29978-LOC-1/2017 No.353-64/17-02 08.11.2017	-
OHTL 10KV Livnica-Topola	ROP-TOP 3963-CPI-2/2017 No.351-244/17-02 09.05.2017	-	-
ED VALJEVO			
CL 10 kV for STS 10/0,4 kV "Klinci 5 - Rogljevići"	ROP-VAL-35022-ISAW-1/2016 06.01.2017.	-	-
CL 1 kV from KRO, Dr Pantića Uzun Mirkova Street to KPK1 and KPK2 on the facility of SGR "Zidar"	ROP-VAL-33713-ISAWHA-2/2017 13.01.2017.	-	-
MNN from STS 10/0,4 kV "Mratišić 3"	ROP-MIO-2960-ISAW-1/2017 14.02.2017.	-	-
STS 10/0,4 kV "Sovljak" - Kičer	ROP-UB-31248-ISAW-4/2017 21.02.2017.	-	-
CL 1 kV from TS 10/0,4 kV "Stevan Filipović 3" to KPK "TIK"	ROP-VAL-33118-ISAWHA-2/2017 10.02.2017.	-	-
OHTL 10 kV "Kamenica-Dragijevica"	ROP-OSE-33867-ISAW-1/2016 24.02.2017.	-	-
MNN from STS 10/0,4 kV "Vukona 1" – Terminal to Kožuar	ROP-UB-4899-ISAW-1/2017 06.03.2017.	-	-
MNN from STS 10/0,4 kV "Lončanik 2"	ROP-UB-2965-ISAWHA-2/2017 30.03.2017.	-	-
STS 10/0,4 kV "Raduša 3" and upgrading of insulated overhead medium voltage line	ROP-UB-2534-ISAWHA-2/2017 30.03.2017.	-	-
CL 1 kV from MBTS 10/0,4 kV "Vuka Karadžića 2" to new KPK on the facility "Agromaks" doo Ub	ROP-UB-18575-ISAWHA-3/2017	-	-

	04.08.2017.		
CL 1 kV from TS 10/0,4 kV "Prvi maj 4" – Park to KPK on the facility of Mišić Slobodan, Ub	ROP-UB-16060-ISAW-1/2017 12.06.2017.	-	-
OHTL 10 kV "Valjevo-Stave" from TS 35/10 kV "Valjevo11"	ROP-VAL-16489-ISAW-1/2017 19.06.2017.	-	-
MNN from the street cubicle KRO to residential and commercial building on cad. lot No. 3618 CM Valjevo	ROP-VAL-16067-ISAW-1/2017 16.06.2017.	-	-
CL 1 kV from TS TC 10/0,4 kV "Sindjelića blok" to KPK on the facility "Gradnja Beton ing", Valjevo	ROP-VAL-18520-ISAW-1/2017 05.07.2017.	-	-
CL 1 kV from TS TC 10/0,4 kV "Obilazni put 4" to KPK on the facility "Lider trade marketing", Valjevo	ROP-VAL-7709-ISAWHA-4/2017 13.07.2017.	-	-
CL 1 kV from KRO "MOST" to KPK on the residential and commercial building of the financier Danijela Stanković from Ub	ROP-UB-16063-ISAWHA-3/2017 03.08.2017.	-	-
MNN from STS 10/0,4 kV "Dročine 2" for connecting the facility of Velimirović Miroslava from Valjevo	ROP-VAL-18521-ISAWHA-2/2017 03.08.2017.	-	-
STS 10/0,4 kV SZR "Zvezda plast" Mihailović Momčilo PR, Sovljak	ROP-UB-21421-ISAWHA-2/2017 11.08.2017.	-	-
MBTS 10/0,4 kV "Okrug" – Pop Lukina and conn.lines 10 kV and 1 kV	ROP-VAL-18537-ISAW-2/2017 21.08.2017.	-	-
CL 1 kV for connecting RBS Stave2, VA58	ROP-VAL-22111-ISAWHA-2/2017 07.09.2017.	-	-
MNN from STS 10/0,4 kV "Vrelo 13" terminal for Djordjevići	ROP-UB-24018-ISAWHA-2/2017 11.09.2017.	-	-
STS10/0,4 kV "Vrelo 13" and conn. Overhead lines	ROP-UB-26618-ISAW-1/2017 14.09.2017.	-	-
MNN from STS 10/0,4 kV "Vrelo 11" – terminal for Matići	ROP-UB-26636-ISAW-1/2017 13.09.2017.	-	-
MNN from STS 10/0,4 kV "Vrelo 13" – terminal for Dordjevići	ROP-UB-24018-ISAWHA-2/2017 11.09.2017.	-	-
MNN from STS 10/0,4 kV "Žabari 4" – terminal for Stefanovići	ROP-VAL-27304-ISAW-1/2017 14.09.2017.	-	-
MNN from STS 10/0,4 kV "Klinci 3"	ROP-VAL-27306-ISAW-1/2017 15.09.2017.	-	-
MNN from STS 10/0,4 kV "Vragočanica 1" - Sušara	ROP-VAL-27308-ISAW-1/2017 15.09.2017.	-	-
CL 1 kV from MBTS 10/0,4 kV "Vuka Karadžića 2" to new KPK on the facility of Krstić Slaviša and Siniša from Ub	ROP-UB-18579-ISAWHA-3/2017 21.09.2017.	-	-
MNN from STS 10/0,4 kV "Donja Bukovica 2" – terminal for Tadići	ROP-VAL-3814-ISAWHA-2/2017 26.09.2017.	-	-
STS 10/0,4 kV SZR "Tulari 7", Tulari	ROP-UB-25575-ISAW-1/2017 25.08.2017.	-	-

CL 1 kV from TS 10/0,4 kV "Pop Lukina" to KPK on the facility at 48-50 Pantićeva Street	ROP-VAL-25038-ISAW-2/2017 28.09.2017.	-	-
CL 1 kV from TS 10/0,4 kV "Zimpa 1" to KPK on the Health Facility in Ub	ROP-UB-23451-ISAW-2/2017 28.09.2017.	-	-
CL1 kV from KRO "Dušana Danilovića 2" to KPK on the facility in Josipa Majera Street, Ub	ROP-UB-23453-ISAW-2/2017 28.09.2017.	-	-
MNN from STS 10/0,4 kV "Sremska" for connecting a residential facility of Radosavljević Željko	ROP-VAL-28904-ISAW-1/2017 02.10.2017.	-	-
CL 1 kV from KRO on cad.lot No. 32 to KPKI within MRO on cad.lot No. 33 CM Mionica Varoš	ROP-MIO-30901-ISAW-1/2017 12.10.2017.	-	-
OHTL 10 kV in Ostružnje	ROP-OSE-30193-ISAW-1/2017 13.10.2017.	-	-
CL 1 kV from TS 10/0,4 kV "Divčibare 7" to KRO "Divčibare 7-Volodja"	ROP-VAL-21423-ISAW-2/2017 13.10.2017.	-	-
CL 1 kV from TS 10/0,4 kV "Mionica 6" to pylon A Selo Mionica	ROP-MIO-17198-ISAWHA-3/2017 24.10.2017.	-	-
MNN from STS 10/0,4 kV "Beomužević 3" – terminal Miloševićs	ROP-VAL-32353-ISAW-1/2017 06.11.2017.	-	-
MNN from STS 10/0,4 kV "Pričević 1" – terminal towards Mirković Radovan	ROP-VAL-31986-ISAW-1/2017 07.11.2017.	-	-
CL 1 kV from TS 10/0,4 kV "Pantićeva 102" do KPK1 and KPK2 on the facility "Gradnja beton ing"	ROP-VAL-33127-ISAW-1/2017 13.11.2017.	-	-
MNN from STS 10/0,4 kV „Vrelo 11" – terminal for Matić Negoslava and for Jovičići	ROP-UB-33792-ISAW-1/2017 06.11.2017	-	-
OHTL 10 kV Osečenica-Divčibare, Tometino Polje	ROP-POZ-36752-ISAW-1/2017 27.11.2017.	-	-
CL 1 kV from TS 10/0,4 kV "Zubna ambulanta" to KPK on the building "Hala sportova"	ROP-VAL-25706-ISAW-3/2017 20.11.2017.	-	-
MNN from STS 10/0,4 kV "Ogladjenovac 3" - Sremci	ROP-VAL-27307-ISAW-1/2017 18.09.2017.	-	-
MNN from STS 10/0,4 kV "Sitarice" – terminal for Rakići and Zarići	ROP-VAL-35487-ISAW-1/2017 17.11.2017.	-	-
MBTS 10/0,4 kV "Divčibare 12"	ROP-VAL-33329-ISAW-1/2017 13.11.2017.	-	-
MNN from STS 10/0,4 kV "Vrelo 11" – terminal for Matići	ROP-UB-37413-ISAW-1/2017 04.12.2017.	-	-
CL 1 kV from the existing LV pole to KPK on the facility of Miloje Kosić	ROP-VAL-36968-ISAW-1/2017 01.12.2017.	-	-
MBTS 10/0,4 kV "Mionica 19" – KOC and conn.lines	ROP-MIO-34058-ISAW-2/2017 11.12.2017.	-	-

OHTL 10 kV Osečenica-Divčibare, Osečenica	ROP-MIO-39585-ISAW-1/2017 26.12.2017.	-	-
MNN from STS 10/0,4 kV "Miličinica 2" – terminal Donji Kranjani	ROP-VAL-31985-ISAW-1/2017 27.11.2017.	-	-
MNN from STS 10/0,4 kV "Pričević 5" – terminal Boškovići	ROP-VAL-32351-ISAW-1/2017 27.11.2017.	-	-
ED JAGODINA			
Cable line 1kV from TS 10(20)/0,4 kV Svilajnac 9-IMO 09041on cad.lot No. 6173/1 Cm Svilajnac	351-483/2015-IV/03 dated 05.01.2016	-	-
Cable line 1kV from TS 10(20)/0,4 kV Jagodina 100 - IMO 10051 on cad.lot No. 374 CM Jagodina	ROP-JAG-29859-USAW-2/2016 int.No. 351-261/145/2016-04 dated 12.12.2016	-	-
Double cable line 1kV from TS 10(20)/0,4 kV Jagodina 134 – KPK 13411,13412 on cad.lot No. 4126/1 CM Jagodina	ROP-JAG-34621-ISAW-2/2017 int.No. 351-8/145/2017-04 од 18.01.2017	-	-
Cable line 0,4kV from TS 10/0,4 kV "Dom omladine" to KPK PSO on cad.lot No. 1262 CM Ćuprija	ROP-CUP-30436-ISAW-2/2017 int.No. 351-304/2016-05-2	-	-
Cable line 1kV from TS 10(20)/0,4 kVJagodina 34 – IMO 34131 on cad.lot No. 3120/4 CM Jagodina	ROP-JAG-58-ISAW- 2/2017 int.No. 351-26/145/ 2017-04 dated 17.02.2017	-	-
Cable line 20kV from TS 10(20)/0,4 kV Svilajnac 44- TS 10(20)/0,4 kV Svilajnac 51	351-446/2015-IV/03 dated 04.12.2015	-	-
LV network in the area of TS 10(20)/0,4 kV Svilajnac 18	351-111/06-06 dated 08.05.2006	-	-
LV network in the area of TS 10(20)/0,4 kV Svilajnac 8	351-2527/2010-IV/03 dated 19.04.2010	-	-
Terminal cell 10 kV No.16 У ТС 35/10 kV Ćuprija 4, cable line 10 kV from TS TS 35/10 kV Ćuprija 4 to TS TC 10/0,4 kV ind.area Zmič and TS 10/0,4 kV ind.area Zmič Paraćin	351-28/2017-05-2 dated 20.02.2017	-	-
Cable line 1kV KPRO-KPK on cad.lot No. 1151/15 CM Svilajnac	351-1381/2017-IV/03 ROP-SVI- 9638-ISAW-1/2017 dated 12.04.2017	-	-
Cable lines 1kV from TS 10(20)/0,4 kV Jagodina 153 – KPK 15304 and KPK 15305 at 80, 82 and 84 Braće Dirak Street, Jagodina	351-208/2015-04 dated 09.06.2015	-	-
LV network in the area of TS 10(20)/0,4 kV Svilajnac 44	351-394/2013-IV/03 dated 16.10.2013	-	-
MV conn.cable lines and TS 10(20)/0,4 kV BISER KERAMIKA Jagodina	ROP-JAG-14588-ISAWHA-4/2017 int.No. 351-48H/145/2017-04 dated 28.03.2017	-	-
OHTL 10(20) kV from TS 10(20)/0,4 kV Glogovac 4 - TS 10(20)/0,4 kV Dražmirovac 1	351-376/2015-04 dated 22.10.2015	-	-
Cable line 1 kV from TS 10/0,4 kV Ravno to KPK on cad.lot No. 1549 CM Ćuprija	351-85/2017-05-2 dated 25.03.2017	-	-
Cable line 1 kV from 10(20)/0,4 kV Svilajnac 58-IMO 5804	351-3986/2017- IV/03 dated 15.06.2017	-	-
Double cable line 1kV from TS 10(20)/0,4 kV Jagodina 122 – IMO 12222	ROP-JAG-29722-ISAWHA-4/ 2017 int.No. 351-26/145/2017-04 dated 01.03.2017	-	-
Cable line 1kV from TS 10(20)/0,4 kV Jagodina 76 – IMO 7601 on cad.lot No. 813/1 CM Jagodina	ROP-JAG-2971-WA - 3/2017 int.No. 351-103/145/2017-04 dated 12.05.2017	-	-
OHTL 10(20) kV from TS 10(20)/0,4 kV Beočić 1(pole No. 5) – TS 10(20)/0,4 kV Beočić 3	351-303/2017-02 dated 20.03.2017	-	-

Cable line 1kV from TS 10(20)/0,4 kV Jagodina 91 – KPK 91061-PKPK 91062 at BB Braće Diraka Street Jagodina	ROP-JAG-5618-ISAW - 3/2017 int. No. 351-184/145/ 2017-04 dated 08.08.2017	-	-
Transformer station SBTS 10/0,4 kV Karadjordjevo brdo on cad.lot No. 3402 CM Paraćin	353-742/15-04 dated 14.07.2015	-	-
Cable line 1kV from TS 10(20)/0,4 kV Jagodina 103 –IMO on cad.lot No. 592 and 4531/5 CM Jagodina	ROP-JAG-14171-ISAW - 2/2017 int. No. 351-245/145/ 2017-04 dated 07.09.2017	-	-
Conn. OHTL 10(20) kV and SBTS 10(20)/0,4 kV Ribare 18	ROP-JAG-13634-ISAW - 2/2017 int. No. 351-185/145/ 2017-04 dated 08.08.201r	-	-
Cable line 10 kV and 1 kV from TS 10/0,4 kV Batinac 3 to terminal pylon	353-169/2017-05-02 dated 06.07.2017	-	-
Cable line 1kV from TS 10(20)/0,4 kV Jagodina 137 – IMO on cad.lot No. 4010 CM Jagodina	ROP-JAG-21723-ISAW - 1/2017 int.No.. 351-176/145/ 2017-04 dated 22.08.2017	-	-
Cable line 1kV from TS 10(20)/0,4 kV Jagodina 103 – KPK on cad.lot No. 671/32 CM Jagodina	351-230/145/2017-04 dated 08.09.2017	-	-
OHTL 10(20) kV from TS 10(20)/0,4 kV Duboka 1 – TS 10(20)/0,4 kV Duboka 2	351-384/2015-04 dated 30.10.2015	-	-
Transformer station MBTS 10/0,4 kV Staklenik on cad.lot No. 2198 CM Paraćin-city	353-954/14-04 dated 12.02.2015	-	-
Cable line 1 kV from TS 10(20)/0,4 kV Svilajnac 28 to KPK and IMO on cad.lot No. 753/2 CM Svilajnac	351-6971/2017-IV/03 ROP-SVI- 5723-ISAW-6/2017 dated 20.07.2017	-	-
Built transformer station 10/0,4 kV Čokolend, cad.lot No. 3309/8 CM Paraćin-city and conn.cable lines on cad.lot No. 3309/8, 3309/4, 5601/2 and 3265/7 CM Paraćin	353-365/2017-V - 04 ROP-PAR-14724-ISAW-2/2016 dated 07.06.2017	-	-
MV conn.cable lines and TS 10(20)/0,4 kV ALFA Jagodina	ROP-JAG-19815-ISAW-2/2017 int.No. 351-259/145/ 2017-04 dated 15.09.2017	-	-
OHTL 10 kV direction towards Batinac	351-97/15-05-2 dated 23.06.2015	-	-
LV network in the area of transformer station 10/0,4 kV Supska 4 and IMO PO of Neušić Dragiša	351-293/2017-05-2 dated 17.10.2017	-	-
Cable line 1kV from TS 10(20)/0,4 kV Jagodina 2 at 3 Kneza Miloša, Jagodina	ROP-JAG-14624-ISAW-2/2017 int. No. 351-205/145/ 2017-04 dated 18.08.2017	-	-
ED KRALJEVO			
Unit Vrnjačka Banja			
TS Cara Lazara 3 and conn. OHTL	351-8-131/2017-06	29.08.2017	-
TS Miločaj 8 and conn.OHTL	351-8-181/2017-06	15.12.2017	-
OHTL 10 kV TC Sokolja _ TS Dobre vode	351-8-123/2017-06	21.08.2017	-
CL 10 kV TS Ribnica – Water Supply Kon.Polje	351-8-95/2017-06	23.06.2017	-
OHTL 10kV TS Polumir – TS Ušće	351-8-15/2017-06	22.02.2017	-
	ROP-VBN-26683-ISAW-1/2017, 05.09.2017.	-	TRANSFORMER STATION MBTS 20/0,4 kV RUDJINCI FLUIDOTEHNIK
	ROP-VBN-14742-ISAW-1/2017, 26.05.2017.	-	TRANSFORMER STATION MBTS 20/0,4 kV VITOJEVAC FABRIKA
	ROP-VBN-35180-ISAW-1/2017, 16.11.2017.	-	CABLE LINE 20kV CRKVENO BRDO - ZVEZDA

	ROP-VBN-15722-ISAW-1/2017, 16.11.2017.	-	CABLE LINE 20kV BATINE LIVADE – SUNČANI BREG
	ROP-VBN-10553-ISAW-1/2017, 25.04.2017.	-	Low voltage network from TS Jelošnica
	ROP-VBN-15722-ISAW-1/2017, 05.06.2017.	-	Low voltage network from TS Stanišinci and school
	ROP-TRS-16552-ISAW-1/2017, 14.06.2017.	-	Low voltage network from TS Dublje reka
Cable line 10 kV "MBTS 10/0,4 kV Stara Strugara 2 - MBTS 10/0,4 kV Supnje 1"	351-408/15 dated 14.05.2015 (Phase1) and 351-46/17 (ROP-RAS-14112-ISAW-1/2017) dated 22.05.2017	-	Shifted to the 2018 Plan
Cable line 10 kV Mislopolje	351-125/17 (ROP-RAS-30484-ISAW-1/2017) dated 05.10.2017	-	Finished
Cable line 10 kV "Opštinska kuća – "C" Apartmani"	351-108/17 (ROP-RAS-27885-ISAW-1/2017) dated 15.09.2017	-	Finished
Cable line 10 kV "MBTS 10/0,4 kV Rudnica - Plavkovo"	351-109/17 (ROP-RAS-27953-ISAW-1/2017) dated 18.09.2017	-	Finished
Connection cable line 10 kV for MBTS 10/0,4 kV Jošanička Banja 2	351-39/17 (ROP-RAS-12070-ISAW-1/2017) dated 09.05.2017	-	Finished
Cable line 10 kV "TS 35/10 kV Raška 2 – Industrijska zona"	351-48/17 (ROP-RAS-14642-ISAW-1/2017) dated 30.05.2017	-	Under construction
Cable line 10 kV "TS 110/35/10 kV Kopaonik – Bačište – Suvi Jelak – Vodovod – Crvene Bare"	351-69/17 (ROP-RAS-18921-ISAW-1/2017) dated 29.06.2017	-	Finished
Reconstruction of MBTS 10/0,4 kV Depadans	351-131/17 (ROP-RAS-31091-ISAW-1/2017) date 12.10.2017	-	Under construction
MBTS 10/0,4 kV "Industrijska zona"	351-50/17 (ROP-RAS-15459-ISAW-1/2017) dated 02.06.2017	-	Finished
MBTS 10/0,4 kV "Jošanička Banja 2"	351-34/17 (ROP-RAS-10867-ISAW-1/2017) dated 26.04.2017	-	Finished
STS 10/0,4 kV "Kanići"	351-81/17 (ROP-RAS-21381-ISAW-1/2017) dated 20.07.2017	-	Under construction
STS 10/0,4 kV "Patričevići"	351-53/17 (ROP-RAS-16037-ISAW-1/2017) dated 08.06.2017	-	Shifted to the 2018 Plan
Reconstruction of TS 110/35 kV Raška	351-141/17 (ROP-RAS-32935-ISAW-1/2017) dated 25.10.2017	-	Construction of OHTL bay 110 kV Kopaonik
ED KRUŠEVAC			
1.Bunch 10 kV on the existing MNN pylons Jasika (Most) – Srnje Kruševac City	ROP-KRU-397-ISAW-1/2017 351-21/2017	-	-

	13.01.2017.		
2.Decision on execution of works for reconstruction of MNN from TS 10/0,4 kV "Kaonik 8" in Kaonik, Kruševac City	ROP-KRU-406-ISAWHA-2/2017 351-65/2017 25.01.2017.	-	-
3. Application for works as per Decision on execution of works for construction of TS 10/0,4 kV "Doljane 2 " with conn.line 10 kV in Doljane, Kruševac City	ROP-KRU-26545-WA-2/2017 351-96/2017 01.02.2017.	-	-
4. Decision on execution of works for reconstruction of MNN from TS 10/0,4 kV "Padež 3" in Padež, Kruševac City	ROP-KRU-2028-ISAW-1/2017 351-105/2017 03.02.2017.	-	-
5. Application for works for construction of 10/0,4 kV "Obrež 11" with conn.line 10 kV in Obrež, Varvarin	ROP-VAR-2178-WA-1/2017 351-9/2017 03.02.2017.	-	-
6. Application for works as per Decision on execution of works for reconstruction of MNN in Vitanovac, Kruševac City	ROP-KRU-2826-WA-1/2017 351-135/2017 10.02.2017.	-	-
7. Decision on execution of works for reconstruction of MNN from TS 10/0,4 kV "Stubal 2" in Stubal, Kruševac City	ROP-ALK-34859-ISAWHA-2/2017 351-205/2017-04 13.02.2017.	-	-
8. Decision on execution of works for reconstruction of MNN from TS 10/0,4 kV "Globare2" in Globar, Kruševac City	ROP-KRU-406-ISAW-1/2017 351-177/2017 01.02.2017.	-	-
9. Decision on execution of works for reconstruction of MNN from TS TC 10/0,4 kV "Ćelije 5" in Ćelije, Kruševac City	ROP-KRU-406-ISAW-1/2017 351-185/2017 01.02.2017.	-	-
10. Site information for construction of TS 10/0,4 kV "Cepak parking 1-2" in Kruševac, Kruševac City	ROP-KRU-2657-LOK-1/2017 350-74/2017 28.02.2017.	-	-
11. Site information for construction of cable line 10 kV from TS (110/35/10) 35/10 kV "Kruševac 3" direction toward Stari Aerodrom in Kruševac, Kruševac City	ROP-KRU-2823-LOK-1/2017 350-78/2017 20.03.2017.	-	-
12. Application for works as per Decision on execution of works for reconstruction of MNN in Kaonik village from TS 10/0,4 kV "Kaonik 8" Kruševac City	ROP-KRU-5559-WA-1/2017 351-234/2017 10.03.2017.	-	-
13. Application for works as per Decision on execution of works for reconstruction of MNN in Padež village from TS 10/0,4 kV "Padež 3", Kruševac City	ROP-KRU-5558-WA-1/2017 351-233/2017 10.03.2017.	-	-
14. Application for works as per Decision on execution of works for reconstruction of MNN in Stubal village from TS 10/0,4 kV "Stubal 2" Aleksandrovac Municipality	ROP-ALK-5553-WA-1/2017 351-234/2017 10.03.2017.	-	-
15. Application for works as per Decision on execution of works for construction of SBTS 10/0,4 kV "Vranštica 2 " by conn.OHTL 10 kV in Vranštica, Aleksandrovac Municipality	ROP-KRU-5545-WA-1/2017 351-233/2017 10.03.2017.	-	-
16. Decision on execution of works for construction of temporaryTS 10/0,4 kV "Stari Aerodrom" Kruševac City	ROP-KRU-5421-TCPI-1/2017 351-227/2017 13.03.2017.	-	-
17. Decision on construction of cable line 10 kV from TS (110/35/10) 35/10 kV "Kruševac 3" direction toward Stari Aerodrom in Kruševac, Kruševac City	ROP-KRU-5446-ISAW-1/2017 350-243/2017 16.06.2017.	-	-

18. Decision on construction of TC 10/0,4 kV "Cepak parking 1-2" in Kruševac, Kruševac City	ROP-KRU-5588ISAW-1/2017 350-237/2017 15.03.2017.	-	-
19 Application for works as per Decision on execution of works for reconstruction of MNN in Globare village from TS 10/0,4 kV "Globare 2" Kruševac City	ROP-KRU-6206-WA-1/2017 351-272/2017 20.03.2017.	-	-
20. Decision on construction of SBTS 10/0,4 kV "Ribare 8", Kruševac City	ROP-KRU-7147ISAW-1/2017 350-300/2017 29.03.2017.	-	-
20. Application for works as per Decision on execution of works for construction of new SBTS 10/0,4 kV "Ribare 8" Kruševac City	ROP-KRU-9328-WA-1/2017 351-396/2017 10.04.2017.	-	-
21. Application for works as per Decision on execution of works for construction of CL 10 kV from TS (110/35)35/10 kV "Kruševac 3", direction toward Stari Aerodrom, Kruševac City	ROP-KRU-6206-WA-1/2017 351-272/2017 20.03.2017.	-	-
22. Application for works as per Decision on execution of works for constructin of temporary TS 10/0,4 kV "Stari Aerodrom" Kruševac City	ROP-KRU-9590-WA-1/2017 351-412/2017 12.04.2017.	-	-
23. Decision on execution of works for construction of MNN from TS 10/0,4 kV "Pozlata" in Pozlata, Kruševac City	ROP-KRU-9505-ISAW-1/2017 351-406/2017 19.04.2017.	-	-
24. Decision on execution of works for construction of MNN from 10/0,4 kV "Majdevo 4" in Majdevo, Kruševac City	ROP-KRU-9506-ISAW-1/2017 351-407/2017 19.04.2017.	-	-
25. Decision on execution of works for construction of MNN from 10/0,4 kV "Grevci 2" in Grevci, Kruševac City	ROP-KRU-9533-ISAW-1/2017 351-409/2017 19.04.2017.	-	-
26. Application for works as per Decision on execution of works for reconstruction of MNN Jasika – Most – TS 10/0,4 kV "Srnje 1" Kruševac City	ROP-KRU-10451-WA-1/2017 351-461/2017 21.04.2017.	-	-
27. Application for works as per Decision on execution of works for construction of MNN from TS 10/0,4 kV "Pozlata" Kruševac City	ROP-KRU-11414-WA-1/2017 351-838/2017 28.04.2017.	-	-
28. Application for works as per Decision on execution of works for construction of MNN from TS 10/0,4 kV "Grevci 2 " Kruševac City	ROP-KRU-11419-WA-1/2017 351-840/2017 28.04.2017.	-	-
29. Application for works as per Decision on execution of works or construction of MNN from TS10/0,4 kV "Majdevo 4" Kruševac City	ROP-KRU-11426-WA-1/2017 351-841/2017 28.04.2017.	-	-
30. Decision on execution of works for construction of MNN from 10/0,4 kV "Rlica" in Rlica, Kruševac City	ROP-KRU-11567-ISAWHA-2/2017 351-969/2017 11.05.2017.	-	-
31. Decision on execution of works for construction of MNN from 10/0,4 kV "Veliki Šiljegovac 5" Kruševac City	ROP-KRU-12886-ISAW-1/2017 351-1064/2017 12.05.2017.	-	-
32. Decision on execution of works for construction of MNN from 10/0,4 kV "Ribare 5" Kruševac City	ROP-KRU-12897-ISAW-1/2017 351-1065/2017	-	-

	12.05.2017.		
33. Site information for construction of cable line 10 kV for TS 10/0,4 kV "Grkljane 2“ in Grkljan, Kruševac City	ROP-KRU-14093-LOK-1/2017 350-322/2017 19.06.2017.	-	-
34. Site information for construction of cable line 10 kV for TS 10/0,4 kV "Sebečevac 3“ in Sebečevac, Kruševac City	ROP-KRU-15795-LOK-1/2017 350-362/2017 23.06.2017.	-	-
35. Site information for construction of cable line 10 kV for TS 10/0,4 kV "Žabare 4“ in Žabare, Kruševac City	ROP-KRU-15862-LOK-1/2017 350-364/2017 26.06.2017.	-	-
36. Site information for construction of cable line 10 kV for TS 10/0,4 kV "Šašilovac 3“, Šašilovac, Kruševac City	ROP-KRU-17092-LOK-1/2017 350-401/2017 04.07.2017.	-	-
37. Site information for construction of of cable line 10 kV for TS 10/0,4 kV "Veliki Šiljegovac 3“, in Šiljegovac, Kruševac City	ROP-KRU-17176-LOK-1/2017 350-402/2017 04.07.2017.	-	-
38.Aplication for execution of works for construction of MNN from TS 10/0,4 kV "Ribare 5” Kruševac City	ROP-KRU-21936-WA-1/2017 351-2349/2017 25.07.2017.	-	-
39. Decision on construction of СБТС 10/0,4 kV “Konjuh 9“ with cable line 10 kV in Konjuh, Kruševac City	ROP-KRU-21498-ISAW-1/2017 350-2310/2017 25.07.2017.	-	-
40. Decision on reconstruction of cable line 10 kV from TS 110/3510 kV "KŠ 2" to TS 10/0,4 kV "Nova Merima“, Kruševac City	ROP-KRU-22418-ISAW-1/2017 351-2383/2017 01.08.2017.	-	-
41. Decision on construction of SBTS 10/0,4 kV “Sebečevac 3“ with cable line 10 kV in Sebečevac, Kruševac City	ROP-KRU-22906-ISAW-1/2017 350-2480/2017 02.08.2017.	-	-
42. Decision on execution of works for construction of MNN from 10/0,4 kV "Belasica” Kruševac City	ROP-KRU-23089-ISAW-1/2017 351-2568/2017 04.08.2017.	-	-
43. Decision on execution of works for construction of MNN from 10/0,4 kV "Padež 1” in Padež village, Kruševac City	ROP-KRU-23573-ISAW-1/2017 351-2783/2017 09.08.2017.	-	-
44. Decision on construction of SBTS 10/0,4 kV "Veliko Grkljane 2“ with cable line 10 kV in Grkljan, Kruševac City	ROP-KRU-23591-ISAW-1/2017 350-2820/2017 11.08.2017.	-	-
45. Decision on construction of SBTS 10/0,4 kV "Stanjevo 2 - Lačnjevci" with cable line 10 kV in Stanjevo, Aleksandrovac Municipality	ROP-ALEK-24474-ISAW-1/2017 351-1198/2017-04 16.08.2017.	-	-
46. Decision on construction of СБТС 10/0,4 kV “Žabare 4“ with cable line 10 kV in Žabare, Kruševac City	ROP-KRU-24510-ISAW-1/2017	-	-

	350-2951/2017 17.08.2017.		
47. Decision on execution of works for construction of MNN from 10/0,4 kV "Donja Pakašnica 4" in Pakašnica, Kruševac City	ROP-KRU-24755-ISAW-1/2017 351-3006/2017 17.08.2017.	-	-
48. Decision on construction of SBTS 10/0,4 kV "Veliki Šiljegovac 10" with cable line 10 kV in Šiljegovac, Kruševac City	ROP-KRU-27285-ISAW-1/2017 351-3399/2017 11.09.2017.	-	-
49. Aplication for execution of works for construction of TS 10/0,4 kV "Sebečevac 3", with conn.line 10 kV Kruševac City	ROP-KRU-28115-WA-1/2017 351-3709/2017 15.09.2017.	-	-
50. Decision on construction of SBTS 10/0,4 kV "Šašilovac 3" with cable line 10 kV in Šašilovac, Kruševac City	ROP-KRU-24471-ISAWHA-2/2017 351-3358/2017 06.09.2017.	-	-
51. Decision on construction of SBTS 10/0,4 kV "Lovci 3" with cable line 10 kV in Lovci, Kruševac City	ROP-KRU-27241-ISAW-1/2017 351-3378/2017 11.09.2017.	-	-
52. Aplication for execution of works for construction of TS 10/0,4 kV 'Veliko Grkljane 2" with conn.line 10 kV Kruševac City	ROP-KRU-28119-WA-1/2017 351-3710/2017 15.09.2017.	-	-
53. Aplication for execution of works for construction of TS 10/0,4 kV "Žabare 4" with conn.line 10 kV Kruševac City	ROP-KRU-28122-WA-1/2017 351-3711/2017 15.09.2017.	-	-
54. Aplication for execution of works for construction of CL 10 kV from TS "KRUŠEVAC 2" to TS "Nova Merima" Kruševac City	ROP-KRU-27803-WA-1/2017 351-3540/2017 14.09.2017.	-	-
55. Decision on execution of works for construction of MNN from 10/0,4 kV "Mali Kupci 4", in Kupci, Kruševac City	ROP-KRU-27659-ISAW-1/2017 351-3466/2017 13.09.2017.	-	-
56. Decision on execution of works for construction of MNN from 10/0,4 kV "Mali Kupci" in Kupci, Kruševac City	ROP-KRU-27393-ISAW-1/2017 351-3405/2017 12.09.2017.	-	-
57. Aplication for execution of works for construction of MNN from TS 10/0,4 kV "Donja Pakašnica 4" Kruševac City	ROP-KRU-30762-WA-1/2017 351-4551/2017 06.10.2017.	-	-
58. Decision on construction of SBTS 10/0,4 kV "GOBELJA 2" with cable line 1 kV in Kriva Reka, Brus	ROP-MSGI-23801-ISAWHA-2/2017 351-05-00086/2017-07 10.10.2017.	-	-
59. Application for works as per Decision on execution of works for construction of SBTS 10/0,4 kV "Stanjevo 2-Lačnjevci" with conn.line 10 kV , Aleksandrovac Municipality	ROP-ALK-32657-WA-1/2017 351-1338/2017-04 20.10.2017.	-	-
60. Site information for construction of cable line 10 kV for TS 10/0,4 kV "AERODRO-Lidl" Kruševac City	ROP-KRU-31993-LOC-1/2017 350-669/2017 06.11.2017.	-	-

61. Decision on construction of SKS 10 kV for SBTS 10/0,4 kV "Veliko Golovode-Mijatović" Kruševac City	ROP-KRU-32660-ISAWHA-2/2017 351-5154/2017 10.11.2017.	-	-
62 Decision on execution of works for construction of cable line 10 kV for TS 10/0,4 kV "AERODROM-Lidl" Kruševac City	ROP-KRU-35744-ISAW-1/2017 351-5256/2017 17.11.2017.	-	-
63.Application for execution of works for construction of cable line 10 kV for TS 10/0,4 kV "Aerodrom Lidl" Kruševac City	ROP-KRU-36738-WA-1/2017 351-5510/2017 27.11.2017.	-	-
64. Application for execution of works for construction of cable line (bunch)10 kV and reconstruction of MNN for TS 10/0,4 kV "V.Golovode 5 – Mijatović" Kruševac City	ROP-KRU-37763-WA-1/2017 351-5739/2017 05.12.2017.	-	-
65. Application for execution of works for reconstruction of MNN from TS 10/0,4 kV "Ćelije 5" Kruševac City	ROP-KRU-38769-WA-1/2017 351-5894/2017 14.12.2017.	-	-
66. Application for execution of works for construction of MNN from TS 10/0,4 kV "Rlica" Kruševac City	ROP-KRU-38772-WA-1/2017 351-5895/2017 14.12.2017.	-	-
67. Application for execution of works for construction of SBTS 10/0,4 kV "Veliki Šiljegovac 10 " with CL 10 kV and MNN Kruševac City	ROP-KRU-38773-WA-1/2017 351-5896/2017 14.12.2017.	-	-
68. Application for execution of works for reconstruction of MNN from TS 10/0,4 kV "Padež 1", Kruševac City	ROP-KRU-39336-WA-1/2017 351-6024/2017 20.12.2017.	-	-
69. Decision on execution of works for construction of cable line 10 kV for TS 10/0,4 kV "Brus Pezzini" Brus	ROP-BRU-39007-ISAW-1/2017 351-98/2017 21.12.2017.	-	-
70. Decision on execution of works for reconstruction of MNN from TS 10/0,4 kV "Zdravinje 4" Kruševac City	ROP-KRU-39411-ISAW-1/2017 351-6025/2017 21.12.2017.	-	-
71. Decision on execution of works for construction of cable line 10 kV from TS 10/0,4 kV "Ciglana" to pylon No. 10, terminal Betonjerka, Ćićevac	ROP-CIC-39404-ISAW-1/2017 351-51/17-05 22.12.2017.	-	-
72. Decision on execution of works for investment maintenance of MNN from TS 10/0,4 kV "Dom Zdravlja" Ćićevac	ROP-CIC-40151-ISAW-1/2017 351-53/2017 28.12.2017.	-	-
73. Application for commencement of works for investment maintenance of MNN from TS 10/0,4 kV "Dom Zdravlja" Ćićevac	ROP-CIC-40127-WA-1/2017 351-54/2017-05 28.12.2017.	-	-
ED LAZAREVAC			
CL 1 kV from TS 10/0,4 kV "Knez Lazar" Lazarevac	ROP-LAZ-7010-ISAW-2/2017 No. 351-292/2017 date 03.04.2017	-	-
CL 1 kV from TS 10/0,4 kV "Decija ambulanta" Lazarevac	ROP-LAZ-20817-ISAW-1/2017 No. 351-579/2017 date 20.07.2017	-	-
CL 10 kV, MBTS 10/0,4 kV "Stop-Shop" Lazarevac	ROP-LAZ-3382-ISAW-3/2017 No. 351-303/2017 date 28.03.2017	-	-

CL 1 kV from TS 10/0,4 kV "Severna magistrala" Lazarevac	ROP-LAZ-12173-GR-3/2017 No. 351-412/2017 date 17.05.2017	-	-
CL10 kV, MBTS 10/0,4 kV "Devix" Veliki Crljeni	ROP-LAZ-25127-ISAW—4-2017 No. 351-/2017 date 12.01.2017	-	-
CL 1 kV from TS 10/0,4 kV "Dula Karaklajica" Lazarevac	ROP-LAZ-24392-ISAW-9/2017 No. 351-737/2017 date 31.08.2017	-	-
TS 35/10 kV "Lazarevac 4"		-	-
CL 35 kV "Ocaga- Lazarevac 4"		-	-
CL 10 kV, MBTS 10/0,4 kV "Bazen" Lajkovac		-	-
ED LOZNICA			
CL 10kV for SBTS 10/0,4 kV "Hladnjača-Ribari" Ribari	353-4-122/2017-11 dated 19.05.2017	-	-
KBTS 10/0,4 kV, 630 kVA "Centar Slepčević" Slepčević	353-4-69/2017-11 dated 31.03.2017	-	-
MBTS 10/0,4 kV, 2x630 kVA "Vuka Karadžića" Loznica	351-600/2017-V dated 08.09.2017	-	-
OHTL 10kV for SBTS 10/0,4 kV "Zelenika fruits" D.Bukovica	351-15/17-04 dated 27.03.2017	-	-
Reconstruction of OHTL 10 kV from STS 10/0,4 kV "Erozija to STS 10/0,4 kV "Planinarski dom" on Gučevo Mountain	351-7/2017-V dated 17.01.2017	-	-
SBTS 10/0,4 kV "Ženeva" Prnjavor	353-4-157/2017-11 dated 15.06.2017	-	-
OHTL 10kV for SBTS 10/0,4 kV "Hladnjača" Lipnički Šor	351-301/2017-V dated 19.05.2017	-	-
SBST 10/0,4 kV "Rašće" Selanac	351-46/17-04 dated 05.09.2017	-	-
ED NOVI PAZAR			
Conn.line 10(20) kV "Zaguljača 2"	ROP-NPA-14891-ISAW-4/2017 dated 13.2.17	-	-
OHTL 10(20) kV "Paralovo 2"	ROP-NPA-20463-ISAW-4/2017 dated 8.9.17	-	-
MBTS 10(20)/0,4 kV "Zapad"	ROP-NPA-32479-ISAW-2/2016 dated 11.1.17	-	-
OHTL 10(20) kV TS Zatrić-TS Elmir	ROP-NPA-13215-ISAW-7/2017 od 14.3.17	-	-
TS and OHTL 10(20)/0,4 kV "Nedžad Bulić"	ROP-NPA-29756-ISAW-6/2017 dated 6.2.17	-	-
SBTS 10(20)/0,4 kV "Bajevica 3" – Čalaković Naser	ROP-NPA-600-ISAW-4/2017 dated 19.6.17	-	-
MBTS 10(20)/0,4 kV "Djukovac 1"	ROP-NPA-23767-ISAW-6/2017 dated 24.11.17	-	-
Transfering OHTL and LV cables to S.Kovačević street	ROP-NPA-30561-ISAWHA-7/2017 dated 13.7.17	-	-
OHTL and TS 10(20)/0,4 kV "Prelaz-Kašalj"	ROP-NPA-29732-ISAWHA-5/2017 dated 24.7.17	-	-
OHTL 10(20) kV "Lučna 1-Lučna 2"	ROP-NPA-27704-ISAW-5/2017 dated 29.8.17	-	-
OHTL and TS 10(20)/0,4 kV "Jasenovik"	ROP-NPA-35293-ISAW-1/2017 dated 17.11.17	-	-
OHTL and TS 10(20)/0,4 kV "Dedilovo"	ROP-NPA-34631-ISAW-1/2017 dated 13.11.17	-	-
OHTL 10(20) "Elmir Muratović-lučna 2"	ROP-NPA-38133-ISAW-1/2017 dated 13.12.17	-	-
OHTL 10(20) kV "Hadžet 2-3-4"	ROP-NPA-38047-APEL-2/2017 dated 26.12.17	-	-

SBTS 10(20)/0,4 kV "Miščiće"	ROP-NPA-38053-ISAW-1/2017 dated 13.12.17	-	-
SBTS 10(20)/0,4 kV "Ribnjak"	ROP-NPA-38756-ISAW-1/2017 dated 20.12.17	-	-
OHTL and TS 10(20)/0,4 kV "Ishrana"	ROP-NPA-38749-ISAW-1/2017 dated 20.12.17	-	-
OHTL 10(20) kV "Dolovo 3"	ROP-TUT-19425-ISAW-1/2017 dated 5.7.17	-	-
OHTL 10(20) kV "Djerekare 3"	ROP-TUT-33781-ISAW-1/2017 dated 7.11.17	-	-
OHTL 10(20) kV "S Blok Zornić"	ROP-TUT-22565-ISAW-1/2017 dated 4.8.17	-	-
Cable LV connection to the old office building Djondić / Kosančićeva Street	ROP-NPA-16905-ISAW-1/2017 dated 9.6.17	-	-
Cable LV connection to the old office building Trgo Kemo group d.o.o	ROP-NPA-37776-APEL-2/2017 dated 27.12.17	-	-
ED ČAČAK			
OHTL 35 kV Rudno-Devići	ROP-IVA-5112-LOC-1/2017 22.03.2017.	-	-
OHTL 35 kV from SHPP Rogopeč towards Rudno	ROP-IVA-5114-LOC-1/2017 22.03.2017.	-	-
CL 35 kV from TS 110/35 kV/kV "Gornji Milanovac 1" to TS 35/10 kV/kV "Spektar"	4-02-350-29/2017 28.02.2017.	-	-
CL 35 kV from TS 110/35 kV/kV "Gornji Milanovac 1" to TS 35/10 kV/kV "Spektar"	ROP-GML-2241-LOCH-2/2017 24.03.2017.	-	-
OHTL 35 kV for supplying TS 35/10 kV/kV "Spektar"	ROP-GML-8192-LOC-1/2017 11.04.2017.	-	-
OHTL 35 kV for supplying TS 35/10 kV/kV "Spektar"	ROP-GML-8192-ISAW-2/2017 21.12.2017.	-	-
CL 35 kV for supplying TS 35/10 kV/kV "Hipodrom"	ROP-CAC-32127-LOC-1/2017 03.11.2017.	-	-
OHTL 35 kV and 10 kV from TS 35/10 kV/kV "Kumanica" – Dajići (overground section)	ROP-IVA-888-ISAW-2/2017 22.03.2017.	-	-
OHTL 35 kV and 10 kV from TS 35/10 kV/kV "Kumanica" – Dajići (overground section)	ROP-IVA-888-WA-3/2017 26.04.2017.	-	-
OHTL 35 kV "Dajići-Devići", cable section from SHPP Rogopeč to pylon 81 for Rudno	ROP-IVA-5114-ISAW-2/2017 11.04.2017.	-	-
OHTL 35 kV "Dajići-Devići", cable section from SHPP Rogopeč to pylon 81 for Rudno	ROP-IVA-5114-WA-3/2017 26.04.2017.	-	-
OHTL 35 kV "Dajići-Devići", cable section from SHPP Rogopeč to pylon 87 to SHPP Rogopeč	ROP-IVA-889-WA-3/2017 26.04.2017.	-	-
OHTL 35 kV and 10 kV from TS 35/10 kV/kV "Kumanica"-Dajići (cable section)	ROP-IVA-890-WA-3/2017 26.04.2017.	-	-
TS 35/10 kV/kV "Hipodrom" in Preljina	ROP-CAC-13697-LOC-1/2017 31.05.2017.	-	-
TS 35/10 kV/kV "Hipodrom" in Preljina	ROP-CAC-13697-ISAW-2/2017 25.12.2017.	-	-
CL 35 kV "Čačak 2 - Centar"	ROP-CAC-20363-LOC-1/2016 26.07.2017.	-	-
CL 35 kV "Čačak 2 - Centar"	ROP-CAC-20363-ISAW-2/2017 11.08.2017.	-	-

CL 35 kV "Čačak 2 - Centar"	ROP-CAC-20363-WA-3/2017 14.09.2017.	-	-
SBTS 10/0,4 kV/kV "Kaluško brdo" with conn.OHTL 10 kV in Ivanjica	350-5/17-04 19.01.2017.	-	-
SBTS 10/0,4 kV/kV "Kaluško brdo" with conn.OHTL 10 kV in Ivanjica	ROP-IVA-1333-ISAW-1/2017 26.01.2017.	-	-
SBTS 10/0,4 kV/kV "Kaluško brdo" with conn.OHTL 10 kV in Ivanjica	ROP-IVA-1333-WA-2/2017 22.02.2017.	-	-
Reconstruction of connection OHTL 10 kV for TS 10/0,4 kV/kV "Ozića brdo" in Šarani	ROP-GML-2374-ISAWHA-2/2017 10.02.2017.	-	-
Reconstruction of connection OHTL 10 kV for TS 10/0,4 kV/kV "Ozića brdo" in Šarani	ROP-GML-2374-WA-3/2017 30.05.2017.	-	-
MBTS 10/0,4 kV/kV "Lomina" with conn.cables 10 kV and power cables 10 kV	ROP-CAC-17097-WA-5/2017 21.02.2017.	-	-
CL 10 kV "Prijevorska 3 – Trbušani"	ROP-CAC-2765-LOCH-2/2017 23.02.2017.	-	-
CL 10 kV "Prijevorska 3 – Trbušani"	ROP-CAC-2765-LOC-3/2017 23.05.2017.	-	-
CL 10 kV "Prijevorska 3 – Trbušani"	ROP-CAC-2765-ISAW-4/2017 01.09.2017.	-	-
CL 10 kV "Prijevorska 3 – Trbušani"	ROP-CAC-2765-WA-5/2017 14.09.2017.	-	-
OHTL 10 kV from TS 35/10 kV/kV "Kumanica" terminal for Erčege and Dajiće	ROP-IVA-2237-LOC-1/2017 22.02.2017.	-	-
OHTL 10 kV from TS 35/10 kV/kV "Kumanica" terminal for Erčege and Dajiće	ROP-IVA-2237-ISAW-2/2017 23.08.2017.	-	-
OHTL 10 kV from TS 35/10 kV/kV "Kumanica" terminal for Erčege and Dajiće	ROP-IVA-2237-WA-3/2017 15.09.2017.	-	-
OHTL 10 kV Tanaskovići 1 – Tanaskovići 2"	ROP-IVA-2238-LOC-1/2017 22.02.2017.	-	-
OHTL 10 kV Tanaskovići 1 – Tanaskovići 2"	ROP-IVA-2238-ISAW-2/2017 16.05.2017.	-	-
A section of OHTL 10 kV "Kumanica – Dajići – Devići"	ROP-IVA-886-LOC-1/2017 09.02.2017.	-	-
Reconstruction of OHTL 10 kV "Kumanica – Dajići"	ROP-IVA-888-LOC-1/2017 09.02.2017.	-	-
A section of OHTL 10 kV "Dajići – Devići" to SHPP Rogopeč	ROP-IVA-889-LOC-1/2017 09.02.2017.	-	-
A section of OHTL 10 kV "Kumanica – Dajići – Devići - Rudno"	ROP-IVA-890-LOC-1/2017 09.02.2017.	-	-
OHTL 10 kV from TS "Acon" to TS "Crown forest - Graditelj"	ROP-IVA-2772-LOC-1/2017 01.03.2017.	-	-
OHTL 10 kV from TS "Acon" to TS "Crown forest - Graditelj"	ROP-IVA-2772-ISAW-2/2017 15.03.2017.	-	-
Conn.double OHTL 10 kV for TS "Pekara polje"	4-02-350-40/2017 07.03.2017.	-	-
Conn.double OHTL 10 kV for TS "Pekara polje"	ROP-GML-6657-LOC-1/2017 30.03.2017.	-	-
Conn.double OHTL 10 kV for TS "Pekara polje"	ROP-GML-6657-ISAW-2/2017	-	-

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SBTS 10/0,4 kV/kV "Stambolići" with conn.line 10 kV in Ivanjica	350-66/17-04 16.03.2017.	-	-
SBTS 10/0,4 kV/kV "Stambolići" with conn.line 10 kV in Ivanjica	ROP-IVA-7389-LOC-1/2017 11.04.2017.	-	-
SBTS 10/0,4 kV/kV "Stambolići" with conn.line 10 kV and emergency disassembly of MNN in Ivanjica	ROP-IVA-21664-ISAW-1/2017 28.07.2017.	-	-
SBTS 10/0,4 kV/kV "Stambolići" with conn.line 10 kV and emergency disassembly of MNN in Ivanjica	ROP-IVA-21664-WA-2/2017 15.09.2017.	-	-
OHTL 10 kV from TS "RGM PAK" to TS "Česma Majdan"	ROP-GML-5509-LOC-1/2017 21.03.2017.	-	-
OHTL 10 kV from TS "RGM PAK" to TS "Česma Majdan"	ROP-GML-5509-ISAW-3/2017 10.05.2017.	-	-
OHTL 10 kV from TS "RGM PAK" to TS "Česma Majdan"	ROP-GML-5509-WA-4/2017 06.06.2017.	-	-
SBTS 10/0,4 kV/kV "Madžari" with connection OHTL 10 kV in Lisa settlement	ROP-IVA-4922-LOC-1/2017 21.03.2017.	-	-
SBTS 10/0,4 kV/kV "Madžari" with connection OHTL 10 kV in Lisa settlement with emergency disassembly of MNN	ROP-IVA-4922-ISAW-2/2017 05.04.2017.	-	-
SBTS 10/0,4 kV/kV "Madžari" with connection OHTL 10 kV in Lisa settlement with emergency disassembly of MNN	ROP-IVA-4922-WA-3/2017 26.04.2017.	-	-
SBTS 10/0,4 kV/kV "Antovići" on cad.lot No. 462 CM Prilipac with conn.OHTL 10 kV	ROP-POZ-6129-LOC-1/2017 28.03.2017.	-	-
SBTS 10/0,4 kV/kV „"Antovići" on cad.lot No. 462 CM Prilipac with conn.OHTL 10 kV	ROP-POZ-6129-ISAW-2/2017 07.04.2017.	-	-
SBTS 10/0,4 kV/kV "Antovići" on cad.lot No. 462 CM Prilipac with conn.OHTL 10 kV	ROP-POZ-6129-WA-3/2017 25.04.2017.	-	-
CL 10 kV "Ivanjica-Sadjavac 2" on the territory of Ivanjica	ROP-IVA-7725-LOC-1/2017 11.04.2017.	-	-
CL 10 kV "Ivanjica-Sadjavac 2" on the territory of Ivanjica	ROP-IVA-7725-ISAW-2/2017 09.05.2017.	-	-
CL 10 kV "Ivanjica-Sadjavac 2" on the territory of Ivanjica	ROP-IVA-7725-WA-3/2017 30.05.2017.	-	-
OHTL 10 kV for TS 10/0,4 kV/kV "Tijanje crkva"	ROP-LUC-7881-LOC-1/2017 11.04.2017.	-	-
OHTL 10 kV for TS 10/0,4 kV/kV "Tijanje crkva"	ROP-LUC-7881-ISAW-1/2017 20.06.2017.	-	-
OHTL 10 kV for TS 10/0,4 kV/kV "Tijanje crkva"	ROP-LUC-7881-WA-3/2017 11.07.2017.	-	-
MBTS 10/0,4 kV/kV "Studentski dom" with connection line 10 kV	ROP-SJE-9537-LOC-1/2017 24.04.2017.	-	-
MBTS 10/0,4 kV/kV "Studentski dom" with connection line 10 kV	ROP-SJE-9537-ISAW-2/2017 10.05.2017.	-	-
MBTS 10/0,4 kV/kV "Studentski dom" with connection line 10 kV	ROP-SJE-9537-ISAW-3/2017 23.05.2017.	-	-
MBTS 10/0,4 kV/kV "Studentski dom" with connection line 10 kV	ROP-SJE-9537-WA-4/2017 06.06.2017.	-	-

CL 10 kV "Ključka 2 - CER 1"	ROP-CAC-25036-ISAW-2/2017 11.05.2017.	-	-
CL 10 kV "Ključka 2 - CER 1"	ROP-CAC-25036-WA-3/2017 06.06.2017.	-	-
SBTS 10/0,4 kV/kV "PVC Profil Centar" with connection MV line 10 kV	ROP-CAC-15578-LOC-1/2017 06.06.2017.	-	-
SBTS 10/0,4 kV/kV „"PVC Profil Centar" with connection MV line 10 kV	ROP-CAC-15578-ISAWHA-3/2017 13.07.2017.	-	-
SBTS 10/0,4 kV/kV "PVC Profil Centar" with connection MV line 10 kV	ROP-CAC-15578-WA-4/2017 24.07.2017.	-	-
SBTS 10/0,4 kV/kV "Agrar Cemprom"	ROP-CAC-13366-LOC-1/2017 17.05.2017.	-	-
SBTS 10/0,4 kV/kV "Hladnjača Kačulice"	ROP-CAC-16544-ISAW-1/2017 13.06.2016.	-	-
SBTS 10/0,4 kV/kV "Hladnjača Kačulice"	ROP-CAC-16544-WA-2/2017 10.07.2016.	-	-
SBTS 10/0,4 kV/kV "Ševarice" Drenova	ROP-GML-18967-ISAW-1/2017 03.07.2017.	-	-
SBTS 10/0,4 kV/kV "Ševarice" Drenova	ROP-GML-18967-WA-2/2017 24.07.2017.	-	-
SBTS 10/0,4 kV/kV "Tijanje crkva"	ROP-LUC-5575-WA-2/2017 11.07.2017.	-	-
MBTS 10/0,4 kV/kV "Car Lazar" on cad.lot No. 1871 CM Čačak	958-519/2017-IV-2-01 27.06.2017.	-	-
SBTS 10/0,4 kV/kV "Agro zin" with conn.OHTL 10 kV in Gojna Gora	ROP-GML-22304-LOC-1/2017 04.08.2017.	-	-
SBTS 10/0,4 kV/kV "Agro zin" with conn.OHTL 10 kV in Gojna Gora	ROP-GML-22304-ISAW-2/2017 24.08.2017.	-	-
SBTS 10/0,4 kV/kV "Agro zin" with conn.OHTL 10 kV in Gojna Gora	ROP-GML-22304-WA-3/2017 15.09.2017.	-	-
MBTS 10/0,4 kV/kV "Čakarevići" with conn.OHTL 10 kV in Mrčajevci	ROP-CAC-21078-LOCH-2/2017 31.07.2017.	-	-
MBTS 10/0,4 kV/kV "Čakarevići" with conn.OHTL 10 kV in Mrčajevci	ROP-CAC-21078-ISAWHA-4/2017 21.09.2017.	-	-
MBTS 10/0,4 kV/kV "Čakarevići" with conn.OHTL 10 kV in Mrčajevci	ROP-CAC-21078-WA-5/2017 02.10.2017.	-	-
SBTS 10/0,4 kV/kV "Milekića put" with conn.mixed line 10 kV and 1 kV lines	ROP-LUC-26395-LOC-1/2017 22.09.2017.	-	-
SBTS 10/0,4 kV/kV "Milekića put" with conn.mixed line 10 kV and 1 kV lines	ROP-LUC-26395-ISAW-2/2017 26.10.2017.	-	-
Conn.line 10 kV for SBTS 10/0,4 kV/kV "Hladnjača Kačulice"	ROP-CAC-27751-LOC-1/2017 29.09.2017.	-	-

Connection OHTL 10 kV for TS 10/0,4 kV/kV "Nenel" on cad.lot. No. 2630/1CM Majdan	ROP-GML-27780-LOCH-2/2017 17.10.2017.	-	-
Connection OHTL 10 kV for SBTS 10/0,4 kV/kV "Livart"	ROP-LUC-24377-ISAW-2/2017 19.10.2017.	-	-
Connection OHTL 10 kV for SBTS 10/0,4 kV/kV "Livart"	ROP-LUC-24377-WA-3/2017 01.11.2017.	-	-
Connection CL 10 kV for TS 10/0,4 kV/kV "Agropartner" (cabling of the existing overground line 10 kV)	ROP-LUC-31612-LOC-1/2017 27.10.2017.	-	-
Connection CL 10 kV for TS 10/0,4 kV/kV "Agropartner" (cabling of the existing overground line 10 kV)	ROP-LUC-31612-ISAW-2/2017 22.11.2017.	-	-
Connection CL 10 kV for TS 10/0,4 kV/kV "Agropartner" (cabling of the existing overground line 10 kV)	ROP-LUC-31612-WA-3/2017 07.12.2017.	-	-
MBTS 10/0,4 kV/kV "Nasip" with connection CL 10 kV	ROP-LUC-33100-LOC-1/2017 21.11.2017.	-	-
MBTS 10/0,4 kV/kV "Nasip" with connection CL 10 kV	ROP-LUC-33100-ISAW-2/2017 01.12.2017.	-	-
MBTS 10/0,4 kV/kV "Nasip" with connection CL 10 kV	ROP-LUC-33100-WA-3/2017 01.12.2017.	-	-
SBTS 10/0,4 kV/kV "Vrelo" with connection line 10 kV	ROP-CAC-33801-ISAW-3/2017 05.12.2017.	-	-
SBTS 10/0,4 kV/kV "Vrelo" with connection line 10 kV	ROP-CAC-33801-WA-4/2017 14.12.2017.	-	-
Connection line 10 kV for TS 10/0,4 kV/kV "Nenel group" in Gornji Milanovac	ROP-GML-27780-ISAW-3/2017 20.12.2017.	-	-
MNN Facilities			
CL 1 kV from TS "Krcunova" on cad.lot No. 1671 and 1669/1 CM Čačak to KPK on the wall of the building on cad.lot 1676 and 1677 both in CM Čačak	ROP-CAC-34580-ISAW-2/2017 12.01.2017.	-	-
CL 1 kV from TS "Krcunova" on cad.lot No. 1671 and 1669/1 CM Čačak to KPK on the wall of the building on cad.lot 1676 and 1677 both in CM Čačak	ROP-CAC-34580-WA-3/2017 30.01.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Sretenovići" – terminals 1, 2 and 3 in Vrnčani and Donji Branetići	ROP-GML-2569-ISAWHA-2/2017 10.02.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Sretenovići" – terminals 1, 2 and 3 in Vrnčani and Donji Branetići	ROP-GML-2569-WA-3/2017 30.05.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Mišovića put" – terminal 5 in Gornji Milanovac	ROP-GML-3176-ISAW-1/2017 14.02.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Mišovića put" – terminal 5 in Gornji Milanovac	ROP-GML-3176-WA-2/2017 31.05.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Osećani" – 1, 3 and 4 in Beršići	ROP-GML-4493-ISAW-1/2017 01.03.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Osećani" – 1, 3 and 4 in Beršići	ROP-GML-4493-WA-2/2017 31.05.2017.	-	-

Reconstruction of MNN from PTS 10/0,4 kV/kV "Galič" terminals 1 and 2	ROP-GML-6965-ISAW-1/2017 24.03.2017.	-	-
Reconstruction of MNN from PTS 10/0,4 kV/kV "Galič" terminals 1 and 2	ROP-GML-6965-WA-2/2017 31.05.2017.	-	-
Connection CL 1 kV for a new Dormitory of secondary school students on cad.lot No. 1/1 CM Čačak and connection cable 1 kV for Primary School Vuka Karadžić on cad.lot No. 1/3 CM Čačak	ROP-CAC-6992-LOC-1/2017 05.04.2017.	-	-
Connection CL 1 kV for a new Dormitory of secondary school students on cad.lot No. 1/1 CM Čačak and connection cable 1 kV for Primary School Vuka Karadžić on cad.lot No. 1/3 CM Čačak	ROP-CAC-6992-ISAW-2/2017 12.04.2017.	-	-
Connection CL 1 kV for a new Dormitory of secondary school students on cad.lot No. 1/1 CM Čačak and connection cable 1 kV for Primary School Vuka Karadžić on cad.lot No. 1/3 CM Čačak	ROP-CAC-6992-WA-3/2017 25.04.2017.	-	-
Reconstruction of MNN from PTS 10/0,4 kV/kV "Bralovići" – terminals 1, 2, 3 and 4	ROP-GML-13599-ISAW-1/2017 22.05.2017.	-	-
Reconstruction of MNN from PTS 10/0,4 kV/kV "Bralovići" – terminals 1, 2, 3 and 4	ROP-GML-13599-WA-2/2017 06.06.2017.	-	-
Reconstruction of MNN from PTS 10/0,4 kV/kV "Dugo brdo" - terminal 4	ROP-GML-6127-WA-2/2017 30.05.2017.	-	-
Connection CL 1 kV from MBTS 10/0,4 kV/kV "SMŠ" to residential building on cad.lot 1879/8 CM Čačak	ROP-CAC-12003-ISAW-2/2017 31.05.2017.	-	-
Connection CL 1 kV from MBTS 10/0,4 kV/kV "SMŠ" to residential building on cad.lot 1879/8 CM Čačak	ROP-CAC-12003-WA-3/2017 20.06.2017.	-	-
Reconstruction of MNN from SBTS 10/0,4 kV/kV "Plastika" – terminal 1	ROP-GML-15985-ISAW-1/2017 08.06.2017.	-	-
Reconstruction of MNN from SBTS 10/0,4 kV/kV "Plastika" – terminal 1	ROP-GML-15985-WA-2/2017 22.06.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Stare gradine" - terminals 1 and 3	ROP-GML-18968-ISAW-1/2017 30.06.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Stare gradine" - terminals 1 and 3	ROP-GML-18968-WA-2/2017 24.07.2017.	-	-
MNN from the existing pylon on cad.lot No. 257/1 CM Slatina for power supply of the facility RHS "Slatinska banja" on cad.lot. No. 874 CM Slatina	ROP-CAC-18969-WA-2/2017 24.07.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "STŠ" – terminals 2 and 6	ROP-GML-17615-WA-2/2017 10.07.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "EMA" – terminal toward Srdanovići	ROP-GML-20725-ISAW-1/2017 13.07.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "EMA" – terminal toward Srdanovići	ROP-GML-20725-WA-2/2017 24.07.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Ozrem kula" – terminal 2 Sretenovići	ROP-GML-24375-ISAW-1/2017 17.08.2017.	-	-

Reconstruction of MNN from TS 10/0,4 kV/kV "Ozrem kula" – terminal 2 Sretenovići	ROP-GML-24375-WA-2/2017 14.09.2017.	-	-
Reconstruction of MNN, power supply for the existing customers and the end consumer radio-base station KG3355-01 Savinac	ROP-GML-24841-ISAW-1/2017 22.08.2017.	-	-
Reconstruction of MNN, power supply for the existing customers and the end consumer radio-base station KG3355-01 Savinac	ROP-GML-24841-WA-2/2017 12.09.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Ljubićska" to residential building on cad.lot No. 160/1 CM Čačak in Ratka Stefanovića Street	ROP-CAC-25946-LOC-1/2017 07.09.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Ljubićska" to residential building on cad.lot No. 160/1 CM Čačak in Ratka Stefanovića Street	ROP-CAC-25946-ISAW-2/2017 14.09.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Ljubićska" to residential building on cad.lot No. 160/1 CM Čačak in Ratka Stefanovića Street	ROP-CAC-25946-WA-3/2017 27.09.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Agrostroj" to the cooler on cad.lot No.2517/1 CM Čačak in Dragoslava Bojića Street	ROP-CAC-24212-ISAW-3/2017 20.09.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Agrostroj" to the cooler on cad.lot No.2517/1 CM Čačak in Dragoslava Bojića Street	ROP-CAC-24212-WA-4/2017 29.09.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Brajića selo" – terminal 3	ROP-GML-29540-ISAW-1/2017 28.09.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Brajića selo" – terminal 3	ROP-GML-29540-WA-2/2017 01.11.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Cerova" – terminals 1 and 6	ROP-GML-29749-ISAW-1/2017 04.10.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Cerova" – terminals 1 and 6	ROP-GML-29749-WA-2/2017 08.11.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Dmitrovići" – terminals 1, 2 and 3	ROP-GML-31407-ISAW-1/2017 18.10.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Dmitrovići" – terminals 1, 2 and 3	ROP-GML-31407-WA-2/2017 31.10.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Semedraž" – terminals 2 and 3	ROP-GML-31409-ISAW-1/2017 18.10.2017.	-	-
Reconstruction of MNN from TS 10/0,4 kV/kV "Semedraž" – terminals 2 and 3	ROP-GML-31409-WA-2/2017 31.10.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Univerzal" to the residential building on cad.lot No. 4930/27 CM Čačak	ROP-CAC-32286-LOCH-2/2017 07.11.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Univerzal" to the residential building on cad.lot No. 4930/27 CM Čačak	ROP-CAC-32286-WA-4/2017 04.12.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Pigova" to the residential-commercial building on cad.lot No. 562/1 CM Čačak in Pigova Street	ROP-CAC-34901-LOC-1/2017 20.11.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Pigova" to the residential-commercial building on cad.lot No. 562/1 CM Čačak in Pigova Street	ROP-CAC-34901-ISAW-2/2017 29.11.2017.	-	-

Connection CL 1 kV from TS 10/0,4 kV/kV "Pigova" to the residential and commercial building on cad.lot. No. 562/1 CM Čačak in Pigova Street	ROP-CAC-34901-WA-3/2017 08.12.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Mlin Donja Ježevica" to IMO on cad.lot No. 183/1 CM Ježevica	ROP-CAC-36276-LOC-1/2017 23.11.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Mlin Donja Ježevica" to IMO on cad.lot No. 183/1 CM Ježevica	ROP-CAC-36276-ISAWHA-3/2017 06.12.2017.	-	-
Connection CL 1 kV from TS 10/0,4 kV/kV "Mlin Donja Ježevica" to IMO on cad.lot No. 183/1 CM Ježevica	ROP-CAC-36276-WA-4/2017 15.12.2017.	-	-
Connection CL 1 kV for the residential and commercial building on cad. lot No. 1904/1 CM Čačak in Episkopa Nikifora Maksimovića Street	ROP-CAC-37347-LOC-1/2017 15.12.2017.	-	-
Connection CL 1 kV from TS 10/,4 kV/kV "Ševar" to IMM on cad.lot No. 748 CM Trbušani	ROP-CAC-39671-LOC-1/2017 27.12.2017.	-	-
ED UŽICE			
Unit Užice	351-267/17-02 dated 13.10.2017.	-	Switchyard 35kV Pora
Unit Užice	351-473/17-02 dated 12.10.2017.	-	Cable line 1kV for supplying RO-8 in Lj.Stojanovića Street
Unit Užice	351-499/17-02 dated 27.10.2017.	-	MBTS 10/0,4 kV Kneza Lazara with power cable line 10 kV
Unit Prijepolje	353-220/2016 dated 11.01.2017	-	Separating overground line 10kV for TS10/0,4kV "Kozičko polje", Velika Župa, Prijepolje
Unit Prijepolje	353-262/17 dated 03.04.2017.	-	Connection cable line 10kV for TS Svetlost 2
Unit Kosjerić	351-137/13-07 dated 16.05.2017	-	Issued by Valjevo City Facility: OHTL 10kV Donji Taor - Milovanovići
Unit Kosjerić	351-4990/2017 dated 16.10.2017	-	Issued by Valjevo City Facility: STS 10/0,4kV Milovanovići
Unit Arilje	ROP-ARI-6498-ISAWHA-2/2017 01 No. RIR-10/17 dated 12.04.2017	-	-
Unit Arilje	ROP-ARI-160-ISAW-1/2017 01 No.RIR-1/17 dated 11.01.2017	-	-
Unit Arilje	ROP-ARI-2900-LOC-1/2017 No. LU-9/17 dated 23.02.2017	-	-
Unit Arilje	ROP-ARI-3085-ISAWHA-2/2017 01 No. RIR-6/17 dated 24.03.2017	-	-

Unit Arilje	ROP-ARI-2890-ISAW-1/2017 01 No. RIR-4 dated 21.02.2017	-	-
Unit Nova Varoš	ROP-NVA-22547-ISAWHA-2/2017	-	Permit for building of OHTL and SBTS – Jadžići Bela Reka
Unit Čajetina	351-642/2017-03 dated 27. October 2017	-	TS 10/0,4 kV Tić Polje 2
Unit Čajetina	351-160/2017-03	-	TS 10/0,4kV Zova 2
Unit Čajetina	351-790/2014-03 dated 22 February 2017	-	TS 10/0,4kV Runja Glava and power OHTL 10 kV
Unit Požega	G.D. 03 351-69/25017 dated 27.03.2017.	-	-
ED ŠABAC			
PDTS 20(10)/0,4 kB SET in Majur	ROP-SAB-34737-TCPI-3/2017 dated 06.02.2017	-	-
Overground line 20 kV for power supply of BSTS and BSTS 10(20)/0,4 kV Jalovik 11 in Jalovik	ROP-VLA-1870-ISAW-1/2017 dated 07.02.2017	-	-
Overground line 20 kV for power supply of BSTS and BSTS 20/0,4 kV Noćaj 9 u Noćaju	ROP-SMI-6726-ISAW-1/2017 dated 24.03.2017	-	-
Double connection line 20 kV for power supply of MBTS Majur 46 in Majur	ROP-SAB-8511-ISAW-2/2017 dated 15.05.2017	-	-
Cable line 20 kV for power supply of BSTS 20/0,4 kV Belotić 11 in Belotić	ROP-BOG-26700-ISAWHA-2/2017 dated 28.09.2017	-	-
Cable line 20 kV for power supply of MBTS Žakića grm 4 and MBTS 20/0,4 kV Šakića grm 4 in Šabac	ROP-SAB-27745-ISAW-2/2017 dated 13.10.2017	-	-

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

In 2017, electromagnetic field measurements were not carried out in the environment on the territory of DA Kraljevo.

3.2.2. Environmental noise

In 2017, environmental noise measurements were not carried out in the environment on the territory of DA Kraljevo.

3.2.3. Waste

Characterization, categorization and partial sale of waste in 2017 is given in Table 172.

Table 172

DISTRIBUTION AREA KRALJEVO																	
Waste in 2017																	
No.	**RULES DEFINING WASTE CATEGORIES, ITS TESTING AND CLASSIFICATION** ***Issued in "Official Gazette of RS", № 56/2010 dated 10.8.2010***	**Index no.**	**Unit**	**Branch/Facility**													**Note**
				HQ	**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**	
				QUANATITIES													
1.	Sulfuric Acid	06 01 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 sulfuric acid
2.	Base KOH	06 02 04*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,380	0,000	0,000	0,000	0,000	0,000	**0,380**	Waste KOH
3.	Waste cartriges	08 03 18	t	0,000	0,000	0,000	0,000	0,000	0,000	0,150	0,000	0,050	0,300	0,000	0,000	**0.500**	Used cartriges
4.	Mineral non chlorinated motor oils, gearbox oil and lubrication oils	13 02 05*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,030	0,000	0,050	0,330	0,000	0,000	**0,410**	Motor oil
5.	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	1,070	0,000	0,000	**1,070**	PCB contaminated transformer oils
6.	Mineral non chlorinated oils for insulation and heat transfer	13 03 07*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	1,200	0,000	1,805	0,000	0,000	**3,005**	Transformer 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	0,760	0,000	0,000	**0,760**	Waste contaminated packaging from chemicals

8.	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing, which are contaminated with hazardous substances	15 02 02*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,514	0,000	0,000	**0,514**	Waste absorbent agents with oil and heavy fuel oil
9.	Waste tyres	16 01 03	t	0,000	0,000	0,662	0,000	0,000	0,000	0,008	0,000	0,200	3,665	0,300	0,300	**5,135**	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	5,400	0,000	0,000	**5,400**	Old vehicles
11.	Waste vhicles not containing liquid and other hazardous substances	16 01 06	t	0,000	0,000	0,000	0,000	5,960	6,600	0,000	0,000	2,500	27,080	4,500	0,720	**47,360**	Old vehicles
12.	Oil filters	16 01 07	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,092	0,200	0,000	**0,292**	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	0,148	0,000	0,000	**0,148**	Antifreeze
14.	Ferrous materials	16 01 17	t	0,000	0,000	0,000	0,000	0,000	0,000	0,100	0,000	0,150	0,360	0,000	0,000	**0,610**	Ferrous material (power switches breakers and disconnectors)
15.	Transformers and condensers containging PCB	16 02 09*	t	0,000	0,000	0,000	0,392	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,392**	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	1,197	1,600	0,900	0,000	0,000	0,000	0,800	12,140	0,000	0,000	**16,637**	Old transformers
17.	Rejected equipment including hazardous components other than the stated 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	0,000	0,000	0,000	0,000	0,000	Waste condenser batteries
18.	Lead-acid batteries	16 06 01*	t	0,000	0,000	0,000	0,000	0,430	0,000	0,000	0,000	0,150	0,190	0,000	0,040	**0,810**	Lead –acid batteries
19.	Nickel-cadmium batteries	16 06 02*	t	0,000	0,000	0,000	0,000	0,000	0,000	1,920	0,000	0,000	1,792	0,000	0,000	**3,712**	Waste nickel-cadmium batteries
20.	Waste oiled water	13 08 02* 16 10 01*	t	0,000	0,000	38,440	0,000	74,240	38,600	36,640	75,320	39,340	107,880	76,140	0,000	**486,580**	Oiled water

21.	Concrete	17 01 01	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	9,000	5,000	0,000	15,000	**29,000**	Old concrete piles
22.	Roof tiles and ceramics	17 01 03	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,514	0,000	0,000	**0,514**	Ceramics
23.	Insulation materials other than the stated in 17 06 01 and 17 06 03	17 06 04		0,000	0,000	14,000	0,000	0,000	0,000	0,524	0,500	0,200	4,081	0,000	0,000	**19,305**	Old insulators
24.	Plastic	17 02 03	t	0,000	0,000	0,019	0,000	0,000	0,000	0,044	0,000	0,010	0,204	0,000	0,000	**0,277**	Waste plastic
25. 1	Copper	17 04 01	t	0,000	0,000	0,000	0,000	0,073	0,000	0,000	0,004	0,000	5,384	0,000	0,000	**5,461**	Pure copper pieces and cooper wires
				0,000	0,000	0,000	0,000	0,000	0,000	2.495	0,000	0,000	0,1325	0,000	0,000	**2.627,5**	Light copper
26.	Aluminum	17 04 02	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,310	0,000	0,000	**0,310**	Waste aluminum
27.	Iron and steel	17 04 05	t	0,000	0,000	0,622	2,970	7,093	0,000	0,073	0,000	1,000	53,034	0,000	4,800	**69,592**	Waste parts of equipment in TS, etc
28.	Mixed metals (Al-Fe rope)	17 04 07	t	0,000	1,040	0,919	0,190	1,336,5	12,080	10,712	0,000	1,400	89,798	0,000	1,200	**118.676**	Al-Fe rope
29.	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	0,271	0,000	0,000	**0,548**	Oiled Al cables
				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**	Oiled Cu cables
30.	Cables other than the stated in 17 04 10	17 04 11	t	0,000	0,000	0,000	0,000	0,000	0,000	0,127	0,000	0,015	0,290	0,000	0,000	**0,432**	Waste aluminum cables
				0,000	0,000	0,000	0,000	0,000	0,000	0,072	0,000	0,000	0,000	0,000	0,000	**0,072**	Waste copper cables
31.	Soil and stones containing hazardous substance	17 05 03*		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**	Oiled soil and stones

32.	Waste containing asbestos	17 06 05*	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**	Asbestos plates
33.	Paper and cardboarad	20 01 01	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,400	0,000	0,000	**0,400**	Old paper and cardboard
34.	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	0,015	0,005	0,000	0,010	**0,030**	Waste fluorescent tubes
35.	Rejected electric and electronic equipment other than the stated in 20 01 21 and 20 01 23 containing hazardous componenets	20 01 35*	t	0,000	0,000	0,915	1,600	0,000	0,000	0,050	0,000	0,400	0,940	0,400	0,000	**4,305**	Computers,monitors
36.	Rejected electric and electronic equipment other than the stated in 20 01 21, 20 01 23 and 20 01 35	20 01 36	t	0,000	0,000	0,000	0,000	0,000	0,000	0,082	0,000	0,200	0,440	0,500	0,050	**1,272**	Induced meters
37.	Wood cintaing hazardous substances	20 01 37*	t	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,300	14,630	0,000	0,800	**15,730**	Waste water proof poles-black water-proofing
38.	Wood other than in 20 01 37	20 01 38	t	0,000	22,000	0,000	0,000	0,000	0,000	0,000	0,000	5,250	120,350	0,000	4,000	**151,600**	Waste water proof poles-green water-proofing
39.	Bulky waste	20 03 07	t	0,000	0,000	0,050	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	**0,050**	Old joinery, etc.

3.2.4. Surface, Groundwater and Soil Monitoring

In DA Kraljevo, surface, ground waters and soil were not monitored in 2017.

3.3. Working Environment Monitoring, Health and Safety

2017 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**

Noise measurement in working environment was not performed in 2017.

- **Electromagnetic fields in working environment**

Electromagnetic fields measurements were not performed in 2017.

- **Working environment parameters**

Working environment parameters were not measured in 2017.

3.3.2. Safety

- **Training**

It is carried out in accordance with the Occupational Safety Qualification and Knowledge Improvement Program. Testing of knowledge 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 Table 173, also including the training of new employees, as well as knowledge testing of employees for narrowly professional occupations.

Table 173

DISTRIBUTIONAL AREA KRALJEVO					
Training in 2017					
Branch/Facility	**Number of employees**	**For training**		**Trained**	
		No.	**%**	**No.**	**%**
ED Aranđelovac	36				
Health and Safety training		36	100,00	36	100,00
ED Valjevo	53				
Health and Safety training		25	47,17	25	100,00
ED Jagodina	75				
Health and Safety training		18	24,00	18	100,00

Fire protection training		18	24,00	18	100,00
ED Kraljevo	73				
Health and Safety training		39	53,42	39	100,00
ED Kruševac	101				
Health and Safety training		0	0,00	0	0,00
Fire protection training		101	100,00	101	100,00
ED Lazarevac	46				
Health and Safety training		46	100,00	46	100,00
ED Loznica	69				
Health and Safety training		69	100,00	69	100,00
ED Novi Pazar	44				
Health and Safety training		0	0,00	0	0,00
Training for use of electrical fitter safety belt		30	68,18	30	100,00
ED Užice	138				
Health and Safety training		31	22,46	31	100,00
Fire protection training		28	20,29	28	100,00
ED Čačak	126				
Health and Safety training		4	3,17	4	100,00
ED Šabac	46				
Health and Safety training		46	100,00	46	100,00
HQ	126				
Health and Safety training		0	0,00	0	0,00
TOTAL: DISTRIBUTION AREA KRALJEVO	**934**	**491**	**52,57**	**491**	**100,00**

- **Work injuries**

Data on work injuries in 2017 are given in Table 174.

Table 174

DISTRIBUTION AREA KRALJEVO						
Work injuries in 2017						
Branch/Facility	**Number of employees**	**Work injuries in relation to the number of employees**				
		Light	**Serious**	**Fatal**	**Total**	**%**
ED Aranđelovac	36	1	0	0	1	2,78
ED Valjevo	53	1	0	0	1	1,89
ED Jagodina	75	1	0	0	1	1,33
ED Kraljevo	73	0	1	0	1	1,37
ED Kruševac	101	1	0	0	1	0,99
ED Lazarevac	46	1	0	0	1	2,17

ED Loznica	69	1	0	0	1	1,45
ED Novi Pazar	44	0	0	0	0	0,00
ED Užice	138	0	0	0	0	0,00
ED Čačak	126	0	0	0	0	0,00
ED Šabac	46	0	0	0	0	0,00
HQ of DA	127	1	1	0	2	1,57
TOTAL: DISTRIBUTION AREA KRALJEVO	**934**	**7**	**2**	**0**	**9**	**0,96**

3.3.3. Health

Резултати периодичних прегледа дати су у Табели 175.

Table 175

DISTRIBUTION AREA KRALJEVO											
Health in 2017											
Branch/Facility	**Number of employees**	**Periodic examination**				**Work capability**					
		Referred to examination		**Examined/ Referred**		**Capable**		**Limited capability**		**Not capable**	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
ED Aranđelovac	36	25	69,44	24	96,00	22	91,67	1	4,17	0	0,00
ED Valjevo	53	25	47,17	25	100,00	19	76,00	6	24,00	0	0,00
ED Jagodina	75	51	68,00	51	100,00	51	100,00	0	0,00	0	0,00
ED Kraljevo	73	55	75,34	55	100,00	49	89,09	6	10,91	0	0,00
ED Kruševac	101	61	60,40	61	100,00	61	100,00	0	0,00	0	0,00
ED Lazarevac	46	31	67,39	31	100,00	30	96,77	1	3,23	0	0,00
ED Loznica	69	56	81,16	53	94,64	38	71,70	15	28,30	0	0,00
ED Novi Pazar	44	41	93,18	41	100,00	37	90,24	4	9,76	0	0,00
ED Užice	138	104	75,36	104	100,00	89	85,58	15	14,42	0	0,00
ED Čačak	126	90	71,43	90	100,00	67	74,44	22	24,44	1	1,11
ED Šabac	46	34	73,91	34	100,00	21	61,76	13	38,24	0	0,00
HQ of DA	127	16	12,60	16	100,00	14	87,50	2	12,50	0	0,00
TOTAL: DISTRIBUTION AREA KRALJEVO	**934**	**589**	**63,06**	**585**	**99,32**	**498**	**85,13**	**85**	**14,53**	**1**	**0,17**

3.4. Public complaints

There were no public complaints in 2017.

4. DISTRIBUTION AREA KRAGUJEVAC

Table 176 shows structure of all facilities and systems within DA Kragujevac.

Table 176

DISTRIBUTION AREA KRAGUJEVAC												
Facilities and systems in 2017												
Branch	Electricity distribution substations								Distribution network			
	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 KRAGUJEVAC									110 kV	0,000	0,000	0,000
									35 kV	193,000	34,000	227,000
									20 kV	0,000	0,000	0,000
									10 kV	1.177,500	552,000	1.729,500
									1,0 kV	0,000	0,000	0,000
									0,4 kV	4.204,190	806,921	5.011,111
Total no	1	0	1	5	13	0	894	**914**	**Total:**	**5.574,690**	**1.392,921**	**6.967,611**
ED POŽAREVAC									110 kV	0,000	0,000	0,000
									35 kV	253,300	36,140	289,440
									20 kV	0,000	0,000	0,000
									10 kV	1.056,960	230,240	1.287,200
									1,0 kV	0,000	0,000	0,000
									0,4 kV	4.089,640	466,210	4.555,850
Total no	0	0	4	0	23	0	896	**933**	**Total:**	**5.399,900**	**732,590**	**6.132,490**
ED SMEDEREVO									110 kV	2,060	0,000	2,060
									35 kV	179,552	24,040	203,590
									20 kV	0,000	0,000	0,000
									10 kV	835,629	211,430	1.047,057
									1,0 kV	0,000	0,000	0,000
									0,4 kV	2.679,967	73,610	2.753,573
Total no	1	0	4	0	25	0	962	**992**	**Total:**	**3.697,208**	**309,072**	**4.006,280**
TOTAL: DISTRIBUTION AREA KRAGUJEVAC									110 kV	2,060	0,000	2,060
									35 kV	625,850	94,180	720,030
									20 kV	0,000	0,000	0,000
									10 kV	3.069,789	993,670	4.063,459
									1,0 kV	0.000	0,000	0,000
									0,4 kV	10.973.790	1.346,741	12.320,531
TOTAL:	**2**	**0**	**9**	**5**	**61**	**0**	**2.752**	**2.839**	**Total:**	**14.671,489**	**2.434,591**	**17.106,080**

4.1. Permits Overview and Status

Overview and status of permits, licenses and other required approvals as well as new requests for obtaining permits in 2017 are presented in Table 177.

Table 177

DISTRIBUTION AREA KRAGUJEVAC			
Permits Overview and Status in 2017			
Branch	**Obtained approvals and permits (Number and date)**	**Applications for obtaining new or extending existing permits**	**Note**
ED KRAGUJEVAC			
10 kV cable lines for connection of SS 795 "Centar Izvrsnosti univerziteta"	ROP-KRG-6021-ISAW-1/2017 16.03.2017.	-	Decision on works approval
Construction of MBTS no.734 "Korićani M3" on KP 14796/2 KO:KG3	ROP-KRG-7054-ISAW-1/2017 06.04.2017.	-	Decision on works approval
Construction of 10 kV DV from SS 1028 "Trska" to SS 1025 "Medna" with accompanying 1 kV overhead lines	ROP-RAC-8154-ISAWHA-2/2017 11.04.2017.	-	Decision on works approval
Construction of 1 kV cable line for connection of First Aid Station in Šumarice	ROP-KRG-7597-ISAW-2/2017 12.04.2017.	-	Decision on works approval
1 kV cable lines for conn. of buss.fac. in Beogradska bb street – Sweet Art to KP 10412/22 and 10412/19 KO:KG 4	ROP-KRG-10397-ISAW-1/2017 28.04.2017.	-	Decision on works approval
Construction of MBTS no.1604 "Slatina" Lapovo on KP 5137 KO Lapovo	351-37/17-02 12.05.2017.	-	Decision on works approval
1 kV cable lines for conn. of fac. in Nemanjina Street no.1 and 8 to KP 2845 and KP 2810 KO:KG 3	ROP-KRG-12698-ISAW-1/2017 12.05.2017.	-	Decision on works approval
1 kV cable lines for conn. of fac. in Svetozara Markovića Street no.25,27,29 to KP 3648 and KP 3651/1 KO:KG 3	ROP-KRG-12691-ISAW-1/2017 15.05.2017.	-	Decision on works approval
1 kV cable lines for conn. of fac. in (construction of free-standing RMO) Belodrimska-Bunjevačka Street to KP 6829 KO:KG 4	ROP-KRG-14294-ISAW-1/2017 15.05.2017.	-	Decision on works approval
Construction of SBTS no.200800 "Rečani", Gornje Grbice on KP 474 KO Gornje Grbice, with connection to DV and LV network	ROP-KRG-16842-ISAW-1/2017 14.06.2017	-	Decision on works approval
Construction of steel-lattice tower "Lipova glava" on KP 201/2 KO Lipnica	ROP-NKC-17029-ISAWHA-2/2017 351-1037/2017-02 29.06.2017.	-	Decision on works approval
Construction of SBTS no.200782 "Grošnica škola" on KP 5398 KO:KG2, and LV network	ROP-KRG-19737-ISAW-1/2017 07.07.2017.	-	Decision on works approval
Construction of SBTS no.242173 "Vrbljani" Grabovac on KP 195 KO Grabovac with connecting DV	ROP-NKC-19762-ISAWHA-1/2017 351-1125/2017-02 10.07.2017.	-	Decision on works approval
Construction of 0.42 kV LV network in area of SS 200657 "Anastasa Jovanovića" for the connection of new customers on KP 15628, 15588, 15568, 15564 KO:KG 1	ROP-KRG-19763-ISAW-1/2017 10.07.2017.	-	Decision on works approval
Construction of 10 kV underground line from SS 10/0,4 kV no.501 to SS 10/0,4 kV "KG UZOR" no.796 on KP 1516/60 KO:KG 1	ROP-KRG-15481-ISAW-3/2016 19.08.2016.	-	Decision on works approval

1 kV cable lines for conn.of facil. in Cetinjska Street no.6 on KP 2663/1 KO:KG 3	ROP-KRG-21375-ISAW-1/2017 01.08.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in Kosovska Street no.12 on KP 5237 KG 1	ROP-KRG-565-ISAW-1/2017 18.01.2017	-	Decision on works approval
Construction of MBTS no.781 "Veliko polje-igralište" on KP 777/6 KO:KG2	ROP-KRG-707-ISAW-1/2017 23.01.2017.	-	Decision on works approval
DV for connection of SBTS 10/0,42 kV 250 kVA no. 778 "Čumić Limovac Bojnjača"	ROP-KRG-32427-CPIH-2/2017 27.01.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 2A Slovenačkih pobunjenika Street on KP 2209/1 KO:KG3	ROP-KRG-1364-ISAW-1/2017 30.01.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 1 Cetinjska Street on KP 2680/1 KO:KG3	ROP-KRG-1365-ISAW-1/2017 31.01.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 12 Kamenička Street on KP 2598/4 KO:KG 3	ROP-KRG-1820-ISAW-1/2017 10.02.2017.	-	Decision on works approval
Construction of 35 kV underground lines in Ilićevo (relocation) on KP 1483 KO:KG1 "RENDE"	ROP-KRG-1369-ISAW-1/2017 14.02.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 50-52 D.M.Bene Street on KP 2508/1 KO:KG 3	ROP-KRG-5066-ISAW-1/2017 08.03.2017.	-	Decision on works approval
35 kV cable lines from KP 10517/1 to the pole in Marka Zagorca Street, relocation of part of DV Kragujevac-Knić for Supernova	ROP-KRG-4886-CPI-1/2017 10.03.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 10 Obilićeva Street II and III phase on KP 5339/7 KO:KG 3	ROP-KRG-5069-ISAW-1/2017 13.03.2017.	-	Decision on works approval
Construction of SBTS no.2172 "Vrbeta Đorđevići" on KP 452/2 KO:Vrbeta and 10 kV overhead line for SBTS connection	ROP-NKC-5652-ISAW-1/2017 Int.no.351-433/2017-02 14.03.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 97 Dragoljuba Milovanovića Bene Street on KP 2288/1 KO:KG 3	ROP-KRG-21672-ISAW-1/2017 01.08.2016.	-	Decision on works approval
Construction of 10 kV underground overhead line for SBTS 242167 "Varošica"-Bumbarevo brdo	ROP-NKC-24205-ISAW-1/2017 351-1340/2017-02 15.08.2017..	-	Decision on works approval
1 kV cable lines for conn.of facil. in 32b Jovana Ristića Street on KP 5496 KO:KG 1	ROP-KRG-25102-ISAW-1/2017 23.08.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 3 Andre Marinkovića Street on KP 4390 KO:KG 3	ROP-KRG-25101-ISAW-1/2017 23.08.2017.	-	Decision on works approval
Construction of SBTS no. 200798 "Albanija" Jovanovac on KP 1082 KO Jovanovac with connecting DV	ROP-KRG-24188-ISAW-1/2017 23.08.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 10 Kočićeva Street on KP 5158/1 KO:KG 1	ROP-KRG-27597-ISAW-1/2017 13.09.2017.	-	Decision on works approval
Relocation of 10 and 1 kV cable lines SS 1001 "Centar" in Rača, Njegoševa Street	ROP-RAC-29653-ISAW-1/2017 Int.no. 351-2273/2017-IV-02-1 03.10.2017.	-	Decision on works approval

1 kV cable lines for conn.of facil. in 13 Kamenička Street on KP 2525/1 KO:KG 3	ROP-KRG-30543-ISAW-1/2017 06.10.2017.	-	Decision on works approval
Construction of SBTS no.200799 "Cvetojevac-Ašanin" Cvetojevac on KP 903 KO Cvetojevac, with connection to DV and LV network	ROP-KRG-32303-ISAW-1/2017 26.10.2017.	-	Decision on works approval
10 kV cable lines for connection of MBTS no.211604 "Slatina" Lapovo with accompanying 1 kV cable lines in Karađorđeva and Solunska Street	ROP-LAP-33317-ISAW-1/2017 351-233/17-02 02.11.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 7 Nemanjina Street on KP 2849 and 2848 KO:KG 3	ROP-KRG-34749-ISAW-1/2017 09.11.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in Sloboda bb Street on KP 10473/4 KO:KG 4 Legat Nikole Koke Jankovića	ROP-KRG-35579-ISAW-1/2017 16.11.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 20 Vojvode Putnika Street on KP 3229 KO:KG 3	ROP-KRG-35910-ISAW-1/2017 17.11.2017.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 57 Dragoljuba Milovanovića Bene Street on KP 3229 KO:KG 3	ROP-KRG-35912-ISAW-1/2017 21.11.2017.	-	Decision on works approval
1 kV cable lines for conn.of newly designed RO 1 RO 2 in Save Kovačevića Street and facilities in 20-22 Save Kovačevića Street on KP 3966/5 KO:KG 3	ROP-KRG-38715-ISAW-1/2017 08.12.2017.	-	Decision on works approval
1 kV cable lines for conn.of hospitality business facility in 2 Sveti Đorđe Square (bakery Vega) on KP 3907 KO:KG 3	ROP-KRG-38035-ISAW-1/2017 15.12.2017.	-	Decision on works approval
Construction of SB TS 10/0,42 kV/kV,250kVA, no.200805 "Opornica-vikend naselje" on KP 980/1 KO Opornica and 10 kV underground cable line for coneection of substation	ROP-KRG-39037-ISAW-1/2017 18.12.2017.	-	Decision on works approval
Reconstruction and upgrade of business facility – Dispatching Center KG 03 on KP 3808/3 KO:KG3 in 15 Nikole Pašića Street	ROP-KRG-6145-CPI-4/2016 XVIII 3510-123GD/16-OP 30.11.2016.	-	Decision on works approval
1 kV cable lines for conn.of facil. in 12 Cara Lazara Street on KP 2894 KO:KG 3	ROP-KRG-1416-ISAW-1/2018 23.01.2018.	-	Decision on works approval
10 kV cable lines foe conn. of substation no. 200796 "Promogradnja" and conn. of facil. Lamela L1-L5 in 3 Nikole Pašića Street on KP 3830,3819/2,3825 and 3824 KO:KG 3	ROP-KRG-34371-ISAW-3/2017 28.12.2017.	-	Decision on works approval
35 kV underground line and telecommunication line for internal communication from SS 35/10 kV Palanka 3 to SS 35/10 kV Palanka 4	ROP-SPA-18751-CPI-1/2017 04.07.2017.	-	Construction permit
ED POŽAREVAC			
Reconstruction of the part of 10 kVoverhead line for Vlaški Do and reconstruction of the part of low voltage network in Vlaški Do – 10 kV overhead line	351-73/2016-02 dated 14.10.2016.	-	Decision on works approval
Construction of MBTS 10/0,4 kV "Slatina" with connecting 10 kV line and LV cable line in Petrovac na Mlavi – 10 kV overhead lines	350-192/17-01 dated 1.3.2017.	-	Decision on works approval
10 kV line from SS 10/0,4 kV "Dunavac 7" to SS 10/0,4 kV "Prvomajska" with part of low voltage network 0,4 kV in Kostolac – 10 kV overhead lines	04-351-616/2016 dated 3.10.2016.	-	Decision on works approval
10 kV overhead line from KBTS 10/0,4 kV "Gložana" to BSTS 10/0,4 kV "Voluja preko Peka 2" and part of LV network in Voluja and Gložana - 10 kV overhead lines	No: ROP-KUC-10819-ISAW-1/2017; No: 351-127/17-02 dated 3.5.2017.	-	Decision on works approval

10 kV overhead line from KBTS 10/0,4 kV "Gložana" to BSTS 10/0,4 kV "Voluja preko Peka 2" and part of LV network in Voluja and Gložana - 10 kV overhead lines	No.: ROP-KUC-10819-ISAW-1/2017; No.: 351-127/17-02 dated 3.5.2017	-	Decision on works approval
10 kV overhead-underground line Smoljinac –Kasidol with the reconstruction of the part of low voltage network – from Kasidol to Smoljinac - 10 kV overhead lines	No: ROP-PZR-37110-ISAW-1/2017; No: 04-351-819/2017 dated 7.12.2016 and No: ROP-MCR-37109-ISAW-1/2017; No: 351-85/17 dated 29.11.2017	-	Decision on works approval
BSTS 10/0,4 kV "Boževac vodoizvorište" with 10 kV connection line and reconstruction of the part of LV network in Boževac - 10 kV overhead lines	No: ROP-MCR-27111-ISAW-1/2016; No: 351-139/16 dated 24.10.2016.	-	Decision on works approval
BSTS 10/0,4 kV "Ždrelo jezero 2" with 10 kV connection line and LV cable line 0,4 kV - 10 kV overhead lines	No: 350-1190/17-01 dated 6.12.2017.	-	Decision on works approval
Underground 10 kV line SS 35/10 kV "Veliko Gradište 3" - SS 10/0,4 kV "Aerodrom" - SS 10/0,4 kV "Rezervoar kod repetitora" - SS 10/0,4 kV "Beli Bagrem" as well as SS 10/0,4 kV "Aerodrom" and SS 10/0,4 kV " Rezervoar kod repetitora " in Srebrno jezero village - 10 kV cable lines	351-1710/2016-06 dated 5.12.2016	-	Decision on works approval
Underground 10 kV line SS 35/10 kV " Veliko Gradište 3" – steel-lattice towerr for 10/0,4 kV MBTS supply "Vodoizvorište Ostrvo"	351-228/2015-06 dated 7.10.2015	-	Decision on works approval
10 kV line from SS 10/0,4 kV "Dunavac 7" to SS 10/0,4 kV "Prvomajska" with part of low voltage network 0,4 kV in Kostolac - 10 kV cable lines	04-351-616/2016 dated 3.10.2016	-	Decision on works approval
10 kV overhead-underground line Smoljinac –Kasidol with the reconstruction of the part of low voltage network – from Kasidol to Smoljinac - 10 kV overhead lines	No: ROP-PZR-37110-ISAW-1/2017; No: 04-351-819/2017 dated 7.12.2016 and No: ROP-MCR-37109-ISAW-1/2017; No: 351-85/17 dated 29.11.2017	-	Decision on works approval
10/0,4 kV BSTS "Ždrelo jezero 2" with 10 kV connection line and LV cable line 0,4 kV - 10 kV cable lines	No: 350-1190/17-01 dated 6.12.2017.	-	Decision on works approval
Underground 10 kV line SS 35/10 kV "Veliko Gradište 3" - SS 10/0,4 kV "Aerodrom" - SS 10/0,4 kV "Rezervoar kod repetitora" - SS 10/0,4 kV "Beli Bagrem" as well as SS 10/0,4 kV "Aerodrom" and SS 10/0,4 kV " Rezervoar kod repetitora " in Srebrno jezero village - 10/0,4 kV substations	351-1710/2016-06 dated 5.12.2016	-	Decision on works approval
Construction of 10/0,4 kV MBTS "Slatina" with 10 kV connection line and LV cable line in Petrovac na Mlavi - 10/0,4 kV substations	350-192/17-01 dated 1.3.2017	-	Decision on works approval
10/0,4 kV BSTS "Boževac vodoizvorište" with 10 kV connection line and reconstruction of part of LV network in Boževac - 10/0,4 kV substations	No: ROP-MCR-27111-ISAW-1/2016; No: 351-139/16 dated 24.10.2016	-	Decision on works approval
10/0,4 kV BSTS "Lučica 2" with low voltage 0,4 kV cable line in Lučica - 10/0,4 kV substations	No: ROP-PZR-37112-ISAW-1/2017; No: 04-351-818/2017 dated 7.12.2016	-	Decision on works approval
10/0,4 kV BSTS "Ždrelo jezero 2" with 10 kV connection line and LV cable line 0,4 kV - 10/0,4 kV substations	No: 350-1190/17-01 dated 6.12.2017	-	Decision on works approval
Reconstruction of part of 10 kV overhead line for Vlaški Do and reconstruction of part of low voltage network in Vlaški Do - 0,4 kV overhead line	351-73/2016-02 dated 14.10.2016	-	Decision on works approval
Construction of 10/0,4 kV MBTS "Slatina" with 10 kV connection line and LV cable line in Petrovac na Mlavi - 0,4 kV overhead lines	350-192/17-01 dated 1.3.2017	-	Decision on works approval
10 kV line from SS 10/0,4 kV "Dunavac 7" to SS 10/0,4 kV "Prvomajska" with part of low voltage network 0,4 kV in Kostolac - 0,4 kV overhead lines	04-351-616/2016 dated 3.10.2016	-	Decision on works approval

LV network from 10/0,4 kV STS "Kalinovac 2" towards Kisiljevo in Kisiljevo village - 0,4 kV overhead lines	351-643/2017-06 dated 16.3.2017	-	Decision on works approval
10 kV overhead line from 10/0,4 kV KBTS "Gložana" to 10/0,4 kV BSTS "Voluja preko Peka 2" and part of LV network in Voluja and Gložana - 0,4 kV overhead lines	No: ROP-KUC-10819-ISAW-1/2017; No: 351-127/17-02 dated 3.5.2017	-	Decision on works approval
10 kV overhead-underground line Smoljinac –Kasidol with the reconstruction of the part of low voltage network – from Kasidol to Smoljinac - 0,4 kV overhead lines	No: ROP-PZR-37110-ISAW-1/2017; No: 04-351-819/2017 dated 7.12.2016 and No: ROP-MCR-37109-ISAW-1/2017; No: 351-85/17 dated 29.11.2017	-	Decision on works approval
10/0,4 kV BSTS "Boževac vodoizvorište" with 10 kV connection line and reconstruction of part of LV network in Boževac - 0,4 kV overhead lines	No: ROP-MCR-27111-ISAW-1/2016; No: 351-139/16 dated 24.10.2016	-	Decision on works approval
Reconstruction of part of 10 kV overhead line for Vlaški Do and reconstruction of part of low voltage network in Vlaški Do - 1 kV cable line	351-73/2016-02 dated 14.10.2016	-	Decision on works approval
Construction of 10/0,4 kV MBTS "Slatina" with 10 kV connection line and LV cable line in Petrovac na Mlavi - 1 kV cable lines	350-192/17-01 dated 1.3.2017	-	Decision on works approval
LV network from 10/0,4 kV STS "Kalinovac 2" towards Kisiljevo in Kisiljevo village - 1 kV cable lines	351-643/2017-06 dated 16.3.2017	-	Decision on works approval
10 kV overhead line from 10/0,4 kV KBTS "Gložana" to 10/0,4 kV BSTS "Voluja preko Peka 2" and part of LV network in Voluja and Gložana - 1 kV cable lines	No: ROP-KUC-10819-ISAW-1/2017; No: 351-127/17-02 dated 3.5.2017	-	Decision on works approval
10/0,4 kV BSTS "Lučica 2" with low voltage 0,4 kV cable line in Lučica - 1 kV cable lines	No: ROP-PZR-37112-ISAW-1/2017; No: 04-351-818/2017 dated 7.12.2016	-	Decision on works approval
ED SMEDEREVO			
10kV overhead line (10+0,4kV mixed line) from SS 10/0,4kV Ćir Antina to SS 10/0,4kV Jugovo	ROP-SMD-33763-ISAWHA-2/2016, 6.1.2017	-	Decision on works approval
10kV overhead line (10kV single line) from SS 10/0,4kV Ćir Antina to SS 10/0,4kV Jugovo	ROP-SMD-33763-ISAWHA-2/2016, 6.1.2017	-	Decision on works approval
10kV overhead line (10+0,4kV mixed line) from SS 10/0,4kV Starca Vujadina 2 to SS 10/0,4kV Starca Vujadina 1	ROP-SMD-13830-ISAW-1/2017, 26.5.2017	-	Decision on works approval
Underground cable line 10 kV for connecting KBTS 10/0,4 "JOSIPA FAJLA"	ROP-SMD-25859-ISAW-1/2016, 10.10.2016	-	Decision on works approval
KBTS 10/0,4kV " JOSIPA FAJLA" Smederevo	ROP-SMD-25859-ISAW-1/2016, 10.10.2016	-	Decision on works approval
MBTS 10/0,4 PREVOZ	ROP-SMD-10893-ISAWHA-2/2017,26.5.2017	-	Decision on works approval
STS 10/0,4 Starca Vujadina 2	ROP-SMD-13830-ISAW-1/2017, 26.5.2017	-	Decision on works approval
0,4 kV overhead line (10+0,4kV mixed line) from SS 10/0,4kV Ćir Antina to SS 10/0,4kV Jugovo	ROP-SMD-33763-ISAWHA-2/2016, 6.1.2017	-	Decision on works approval
0,4 kV overhead line (10+0,4kV mixed line) from SS 10/0,4kV Starca Vujadina 2 to SS 10/0,4kV Starca Vujadina 1	ROP-SMD-13830-ISAW-1/2017, 26.5.2017	-	Decision on works approval
MBTS 10/0,4kV VATROGASNI DOM	351-468/2015-05, 11.01.2016.	-	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 fields

Measurements of electric and magnetic fields size in the environment are carried out in 2017.

Location:

1.SS 35 / 10 kV Požarevac 3 - within permissible limits
2. SS 35/10 kV Kragujevac 3 – within permissible limits

4.2.2. Environmental Noise

Measurements of environmental noise were not carried out in 2017.

4.2.3. Waste

Waste amounts generated in Distribution Area Kragujevac in 2017 are presented in Table 178.

Table 178

DISTRIBUTION AREA KRAGUJEVAC								
Waste in 2017								
No.	**RULES DEFINING WASTE CATEGORIES, ITS TESTING AND CLASSIFICATION** Published in "Official Gazete RS", № 56/2010 dated: 10th August 2010	**Index number**	**measurement unit**	**Branch**				**Note**
				ED KRAGUJEVAC	**ED POŽAREVAC**	**ED SMEDEREVO**	**TOTAL: DISTRIBUTION AREA KRAGUJEVAC**	
				QUANTITIES				
1.	Mineral non chlorinated motor oils for gears and lubrication	13 02 05*	t	0,000	0,000	0,000	**0,000**	-
2.	Oils for insulation and heat transportation containing PCB	13 03 01*		3,480	9,060	0,000	**12,540**	-
3.	Mineral non chlorinated oils for insulation and heat transportation	13 03 07*	t	0,000	0,000	0,000	**0,000**	Tariff oil
4.	Other emulsions	13 08 02*		35,020	38,160	57,920	**131,100**	Water containing oil from oil pits
5.	Paper and cardboard packaging	15 01 01	t	4,340	0,000	0,000	**4,340**	Paper and cardboard
6.	Wooden packaging	15 01 03	t	0,000	0,000	0,000	**0,000**	Wooden packaging
7.	Packaging containing residual hazardous substances or is contaminated by hazardous substances	15 01 10*	t	0,000	0,000	0,029	**0,029**	Waste contaminated PVC packaging used for chemicals
			t					Waste metal packaging from used oils and lubricants
8.	Absorbents, filter materials (including oils filters not specified otherwise), wiping cloths, protection clothes, contaminated by hazardous substances	15 02 02*	t	0,000	0,000	0,000	**0,000**	Waste absorption agent with oil and heavy fuel oil
9.	Waste tires	16 01 03	t	1,920	0,000	1,189	**3,109**	Auto tires
10.	Coloured metals	16 01 18	t	0,316	3,260	0,000	**3,576**	Copper residues (racks, ropes and wires)
11.	Transformers and condensers containing PCB	16 02 09*	t	0,000	0,000	0,000	**0,000**	Waste and used transformers with PCB oil
12.	Discarded equipment containing hazardous components other than specified in 16 02 09 to 16 02 12	16 02 13*	t	0,000	0,000	0,000	**0,000**	Laed batteries
13.	Lead batteries	16 06 01*	t	0,000	0,000	0,300	**0,300**	Accu-bateries
14.	Ni-Cd batteries	16 06 02*	t	0,000	0,030	0,810	**0,840**	
15.	Concrete	17 01 01	t	71,170	1,000	6,390	**78,560**	Old concrete poles, pole foundations

16.	Tiles and ceramics	17 01 03	t	3,050	3,960	3,900	**10,910**	(porcelain insulators)
17.	Wood	17 02 01	t	0,000	1,222	9,300	**10,522**	Wooden poles - green
18.	Copper, bronze, brass	17 04 01	t	0,000	0,000	0,000	**0,000**	Cu, brass
19.	Aluminium	17 04 02	t	0,560	0,000	0,000	**0,560**	-
20.	Iron and steel	17 04 05	t	12,680	4,470	15,580	**32,730**	Waste parts of SS
21.	Mixed metals	17 04 07	t	1,540	10,610	20,348	**32,498**	Mixed metals, AlČe rope
22.	Cables containing oil, oil tar and other hazardous substances	17 04 10*	t	0,000	0,000	0,000	**0,000**	
23.	Cables different than listed in 17 04 10	17 04 11	t	0,000	1,030	5,761	**6,791**	Waste aluminum cables
24.	Soil and stones containing dangerous substances	17 05 03*	t	0,000	10,260	0,000	**10,260**	Oily soil and gravel
25.	Paper and cardboard	20 01 01	t	3,870	6,160	1,610	**11,640**	-
26.	Fluorescent tubes and other waste containing mercury	20 01 21*	t	0,783	0,000	0,035	**0,818**	-
27.	Discarded electric and electronic equipment other than specified in 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	t	0,387	0,900	0,361	**1,648**	Discarded electronin and electric equipment
28.	Discarded electric and electronic equipment other than specified in 20 01 21, 20 01 23 and 20 01 35	20 01 36	t	0,000	4,940	3,233	**8,173**	Electronic and induction meters, disconnectors, lamps and power switches
29.	Wood containing hazardous substances	20 01 37*	t	0,000	0,000	8,233	**8,233**	Impregnated wooden poles
30.	Wood other than specified in 20 01 37	20 01 38	t	15,350	2,085	5,680	**23,115**	Commercial waste

4.2.4. Surface, Ground Waters and Soil Monitoring

Monitoring of surface and groundwater as well as monitoring of soil in 2017 was not carried out.

4.3. Working Environment Monitoring, Health and Safety

2017 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
  - work injuries
- **Health**

4.3.1. Working Environment Monitoring

- **Working environment noise measurements**

There were no working environmental noise measurements performed in 2017.

- **Working environment electromagnetic fields**

Measurements were not performed in 2017.

- **Working environment parameters**

Working environment parameters are presented in Table 179.

Table 179

DISTRIBUTION AREA KRAGUJEVAC			
Working environment parameters in 2017			
Elektrodistribucija Kragujevac	- Testing of chemical and physical harmfulness, lightning, micro climate in all facilities of the Branch for 2017 summer period. - measurement of non-ionizing radiation in the working environment	-	-
Elektrodistribucija Požarevac	- Testing of chemical and physical harmfulness, lightning, micro climate in all facilities of the Branch for 2017 summer period - measurement of non-ionizing radiation in the working environment	-	-
Elektrodistribucija Smederevo	- Testing of chemical and physical harmfulness, lightning, micro climate in all facilities of the Branch for 2017 summer period. - measurement of non-ionizing radiation in the working environment	-	-

Note: Testing of other working envirnoment parameters in 2017 were not carried out.

4.3.2. Safety

- **Traning**

Training data are given in Table 180.

Table 180

DISTRIBUTION AREA KRAGUJEVAC					
Training in 2017					
Branch /Facility	**Number of employees**	**For training**		**Trained**	
		№	**%**	**№**	**%**
Training of employees who according to the employment contract work for other employer	64	18	28,13	18	100,00
Fire protection training and testing		64	100,00	64	100,00
Elektrodistribucija Požarevac	58				
Training of employees who according to the employment contract work for other employer		9	15,52	9	100,00
Fire protection training and testing		58	100,00	58	100,00
Elektrodistribucija Smederevo	77				
Training of employees who according to the employment contract work for other employer		4	5,19	4	100,00
Fire protection training and testing		77	100,00	77	100,00
DA HQ	103	103	100,00	103	100,00
TOTAL: DISTRIBUTION AREA KRAGUJEVAC	**302**	**333**	**110,26**	**333**	**100,00**

Note: Number of training is greater than the number of employees, because a number of employees came in more types of training.

Additional training: Introducing contractors with dangers and harmfulness, H&S measures and rules of behaviour – 150 employeed with contractors. Training of contractors' employees is carried out in Kragujevac in H&S Division in Kragujevac for the entire distribution area Kragujevac.

- **Work injuries**

The status of injuries for 2017 is presented in Table 181.

Table 181

DISTRIBUTION AREA KRAGUJEVAC						
Work injuries in 2017						
Branch /Facility	**Number of employees**	**Injuries related to the number of employees**				
		Light	**Difficult**	**Fatalities**	**Total**	**%**
DA HQ	103	4	0	0	4	3,88
ED Kragujevac	64	2	0	0	2	3,12
ED Požarevac	58	0	0	0	0	0,00
ED Smederevo	77	1	0	0	1	1,30
TOTAL: DISTRIBUTION AREA KRAGUJEVAC	**302**	**7**	**0**	**0**	**7**	**2,32**

4.3.3. Health

Periodical medical examinations of employees shown in Table 182.

Table 182

DISTRIBUTION AREA KRAGUJEVAC											
Work capability in 2017											
Branch /Facility	**Number of employees**	**Previous and periodical examination**				**Work capability**					
		Referred to examination		**Examined**		**Capable**		**Limited capability**		**Unable**	
		број	**%**	**број**	**%**	**број**	**%**	**број**	**%**	**број**	**%**
ED Kragujevac	64	46	71,88	46	100,00	27	58,70	19	41,30	0	0,00
ED Požarevac	58	44	75,86	44	100,00	42	95,45	2	4,55	0	0,00
ED Smederevo	77	48	62,34	48	100,00	40	83,33	8	16,67	0	0,00
DA HQ Kragujevac	103	20	19,42	20	100,00	15	75,00	5	25,00	0	0,00
TOTAL: DISTRIBUTION AREA KRAGUJEVAC	**302**	**158**	**52,32**	**158**	**100,00**	**124**	**78,48**	**34**	**21,52**	**0**	**0,00**

4.4 Public Complaints

Public complaints are given in Table 183.

Table 183

DISTRIBUTION AREA KRAGUJEVAC				
Public complaints in 2017				
Branch /Facility	**Complaint (number and date) and submitted by whom**	**Subject of complaint**	**Measures undertaken**	**Note**
ED Kragujevac	Upon complaint from the residents in 9A Nikole Pašića Street the Minutes from the Inspector for Environmental Protection no. XV 02-501-232/17 dated 12.09.2017 was submitted	Complaint refers to SS 35/10 kV no. 3, The source of non-ionizing radiation in 15A Nikole Pašića Street	Non-ionizing radiation was measured by the Nikola Tesla Institute – report No. 317411-L dated 6.10.2017	Results within permissible limits.
ED Požarevac	There were no public complaints	-	-	-
ED Smederevo	There were no public complaints	-	-	-
HQ	There were no public complaints	-	-	-

5. DISTRIBUTION AREA NIS

Table 184 presents the structure of all facilities within the system of Distribution Area Nis.

Table 184

DISTRIBUTION AREA NIS												
Facilities and systems in 2017												
Branch	Electricity distribution substations								Distribution network in km			
	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 ZAJECAR									110 kV	0,000	0,000	0,000
									35 kV	579,590	17,840	597,430
									20 kV	0,000	0,000	0,000
									10 kV	2.220,720	408,610	2.629,330
									1,0 kV	0,000	0,000	0,000
									0,4 kV	5.184,050	267,930	5.451,980
Total	0	0	10	2	50	0	1.661	**1.723**	**Total:**	**7.984,360**	**694,380**	**8.678,740**
ED PROKUPLJE									110 kV	0,000	0,000	0,000
									35 kV	172,680	9,900	182,580
									20 kV	0,000	0,000	0,000
									10 kV	806,720	87,250	893,970
									1.0 kV	0,000	0,000	0,000
									0.4 kV	2.096,980	93,690	2190,670
Total	0	0	2	0	14	0	624	**640**	**Total:**	**3076,380**	**190,840**	**3267,220**
ED NIS									110 kV	0,000	0,000	0,000
									35 kV	204,630	36,690	241,320
									20 kV	0,000	0,000	0,000
									10 kV	917,850	651,420	1.569,270
									1.0 kV	0,000	0,000	0,000
									0.4 kV	4.394,270	486,370	4.880,640
Total	3	0	3	1	27	0	1.477	**1.511**	**Total**	**5.516,750**	**1.174,480**	**6.691,230**
ED PIROT									110 kV	0,000	0,000	0,000
									35 kV	184,000	32,550	216,550
									20 kV	0,000	0,000	0,000
									10 kV	739,290	94,830	834,120
									1.0 kV	0,000	0,000	0,000
									0.4 kV	1.348,740	154,200	1.502,940
Total	0	0	3	0	19	0	504	**526**	**Total**	**2.272,030**	**281,580**	**2.553,610**
ED LESKOVAC									110 kV	0,000	0,000	0,000
									35 kV	339,030	1,580	340,610
									20 kV	0,000	0,000	0,000
									10 kV	1.617,700	272,100	1.889,750
									1,0 kV	0,000	0,000	0,000
									0,4 kV	3.851,100	142,300	3.993,400
Total	2	0	3	2	32	0	1.241	**1.280**	**Total**	**5.807,830**	**415,930**	**6.223,760**

ED VRANJE									110 kV	0,000	0,000	0,000
									35 kV	126,500	12,300	138,800
									20 kV	0,000	0,000	0,000
									10 kV	1.444,000	184,200	1.628,200
									1.0 kV	0,000	0,000	0,000
									0.4 kV	2.972,050	116,000	3.088,050
Total	2	0	1	3	11	0	957	**974**	**Total**	**4.542,550**	**312,50**	**4.855,050**
TOTAL: DISTRIBUTION AREA NIS									110 kV	0,000	0,000	0,000
									35 kV	1.606,430	110,860	1.717,290
									20 kV	0,000	0,000	0,000
									10 kV	7.746,280	1.698,360	9.444,640
									1.0 kV	0,000	0,000	0,000
									0.4 kV	19.847,190	1.260,490	21.107,680
Total	**7**	**0**	**22**	**8**	**153**	**0**	**6.464**	**6.654**	**Total**	**29.199,890**	**3.069,710**	**32.269,610**

Note: Data provided on 31st December 2017. 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. Overview and Status of Permits

Review and statuses of permits, licenses and other required approvals as well as new requests for obtaining permits in 2017 are presented in Table 185.

Table 185

DISTRIBUTION AREA NIŠ			
Overview and Permits Status in 2017			
Branch	**Obtained approvals and permits (Number and Date)**	**Applications for obtaining new or extending existing permits**	**Note**
ED ZAJEČAR			
Transmission line 10 kV "Poštar Klizište"	ROP-ZAJ-33535-ISAWHA-2/2017 13.01.2017.	-	Zaječar
STS 10/0.4 kV "Topolnica 1"	ROP-MAJ-34113-ISAWHA-2/2017 14.01.2017.	-	Majdanpek
STS 10/0.4 kV "Alun 4"	ROP-KLA-765-ISA W-1/2017 19.01.2017.	-	Kladovo
LV from STS 10/0.4 kV "Crepana-Krivelj"	ROP-BOR-706-ISA WHA-2017 03.02.2017.	-	Bor
STS 10/0.4 kV "Faca Valjeji"	ROP-BOLJ-1613-ISA WHA-2/2017 02.02.2017.	-	Boljevac
STS 10/0.4 kV "Tanda 2"	ROP-BOR-887-ISA WHA-2/2017 19.01.2017.	-	Bor
STS 10/0.4 kV "Kulma Peru"	ROP-MAJ-2758-ISA W-1/2017 13.02..2017	-	Majdanpek
LV network "Prevalja"-Zlot	ROP-BOR-2927-ISA W-1/2017 24.02.2017	-	Bor
STS 10/0.4 kV "GINDUŠA"	ROP-ZAJ-4333-ISA W-1/2017 08.03.2017.	-	Zaječar

STS 10/0.4 κV “Štubik”	ROP-NEG-1208-ISA W-1/2017 26.01.2017.	-	Negotin
LV network “VKF”-Zlot	ROP-BOR-4749-ISA W-1/2017 15.03.2017.	-	Bor
STS 10/0.4 kV “Malazija 3”	ROP-BOR-15139-ISA W-2017 14.3.2017	-	Bor
STS 10/0.4 kV “Ozing”	ROP-SBN-5889-ISA W-1/2017 20.03.2017.	-	Sokobanja
LV network “Beljevina 3”-Zlot	ROP-BOR-5663-ISA W-1/2017 15.03.2017.	-	Bor
LV network “Vizak-Tanda”-Bor	ROP-BOR-6211-ISA W-1/2017 21.03.2017.	-	Bor
STS 10/0.4 kV “Šarkamen”	ROP-NEG-15853-ISA W-1/2017 05.06.2017.	-	Negotin
STS 35/0.4 kV “Oreškovica”	ROP-MAJ-15852-ISA W-1/2017 09.06.2017.	-	Majdanpek
Connection transmission line 10 kV for STS Kulma Peru	ROP-MAJ-15869-ISA W-1/2017 09.06.2017.	-	Majdanpek
LV network “Vizak Tanda”-Bor location B	ROP-BOR-15355-ISA WHA-2/2017 15.06.2017	-	Bor
LV network from STS “Krlinac”-Zlot	ROP-BOR-14270-ISA W-1/2017 06.06.2017.	-	Bor
STS 10/0.4 kV “Livađe”	ROP-ZAJ-13656-ISA WHA-2/2017. 29.05.2017.	-	Zaječar
LV network “Stopanja”-Zlot	ROP-BOR-15859-ISA W-1/2017 15.06.2017.	-	Bor
10 kV cable line Jugopetrol	ROP-BOL-20504-ISA W-1/2017 14.07.2017	-	Boljevac
LVN Milošev Krak-Metovnica	ROP-BOR-20581-ISA W-1/2017 21.07.2017	-	Bor
LNV Svetosavska relocation	ROP-BOL-20802-ISA W-1/2017 19.07.2017.	-	Boljevac
LNV Galonja-Zlot	ROP-BOR-21386-ISA W-1/2017 28.07.2017.	-	Bor
STS 10/0.4 kV “Veliko polje Krupaja”	ROP-YAG-22911-ISA W-1/2017 03.08.2017.	-	Žagubica
LVN Zlapce-Zlot 3	ROP-BOR-22956-ISA W-1/2017 09.08.2017.	-	Bor
LVN Suvi Potok-Šarbanovac	ROP-BOR-24026-ISA W-1/2017	-	Bor
Ivana Milutinovića 40, Zaječar	ROP-YAJ-23171-ISA WHA-2/2017	-	Zaječar

	21.08.2017		
ED NIŠ			
Network extension from TS “Braće Ignjatović 2”	351-146/2017-06 dated 13.03.2017.	-	-
Low voltage network extension from TS “Moše Pijade”	351-957/2017-06 dated 12.12.2017.	-	-
Network extension from SRO to SRO from TS 10/0.4 kV “Zlatiborska 3”	351-1/243-2017-06 dated 16.08.2017.	-	-
Construction SRO from TS 10/0.4 kV “Sajmište 6”	351-574/2017-06 dated 18.08.2017.	-	-
Construction SRO from TS 10/0.4 kV “Sretena Mladenovića”	351-396/2017-06 dated 22.06.2017.	-	-
Construction low voltage exit from TS 10/0.4 kV “7 juli 1”	351-502/2017-06 dated 20.07.2017.	-	-
ED PROKUPLJE			
BSTS Gornja Straža 1 – Ilić, TS 10/0.4 kV	ROP-PRO-11211-ISAW-1/2017 28.04.2017	-	-
BSTS Mađerlak, TS 10/0.4 kV	ROP-BLA-15525-ISAW-1/2017 07.06.2017.	-	-
BSTS Sokolica, TS 10/0.4 kV	ROP-PRO-7680-ISAW-1/2017 29.03.2017.	-	-
MBTS Dom Zdravlja, TS 10/0.4 kV	ROP-PRO-27333-ISAW-1/2017 13.09.2017	-	-
10 kV line for BSTS Mađerlak	ROP-BLA-15525-ISAW-1/2017 07.06.2017.	-	-
Connection line 10 kV BSTS Sokolica	ROP-PRO-7680-ISAW-1/2017 29.03.2017.	-	-
Connection line 10 kV for MBTS Dom Zdravlja	ROP-PRO-27333-ISAW-1/2017 13.09.2017	-	-
LV line 0.4 kV for MBTS Dom Zdravlja	ROP-PRO-27333-ISAW-1/2017 13.09.2017	-	-
Cables LV network Međuhana	ROP-BLA-15525-ISAW-1/2017 07.06.2017.	-	-
LV Sokolica	ROP-PRO-7680-ISAW-1/2017 29.03.2017.	-	-
LV network extension in Lukomir village	ROP-ZRA-6599-ISAWH-2/2017 03.4.2017	-	-
ED PIROT			
Construction of 35 kV switchgear “Vrgudinac” with conn. 35 kV line (decision on use permit)	351-104/2017-IV/02 od 13.02.2017.	-	Bela Palanka
Extension LV network in Gnjilan (site information)	03-У-350/628-17 од 25.10.2017.	-	Pirot
Construction of 10 kV switchgear “Zvonce” with conn. 10 kV line (decision on use permit)	351-24/2017-02 од 10.03.2017.	-	Babušnica
Construction of MV unit and 10 kV line for TS “JCG” (usage permit)	03-У-351-1877/2017 од 14.12.2017.	-	Pirot
Construction of STS 10/0.4 kV with conn. 10 kV CL (usage permit)	03-У-351-1219/2017 од 21.09.2017.	-	Pirot

ED LESKOVAC			
Decision on works approval on the investment maintenance on part of TL 35 kV "Belo Polje – Surdulica 1"	ROP-SUR-34983-ISAWHA-2/2017, Br.351-1-2/17-03, од 06.01.2017.	-	Surdulica Municipality
Work submission for decision on works on investment maintenance on part of TL 35 kV "Belo Polje – Surdulica 1"	ROP-SUR-34983-WA-3/2017, Br.351-1-2/17-03, од 06.01.2017.	-	Surdulica Municipality
Site information for construction of TS 10/0.4 kV "Ljuba Nenadović" with LV terminal, in Leskovac	ROP-LES-13720-LOCH-2/2017, Br.351-1-10/17-03, од 02.02.2017.	-	City of Leskovac
Decision of works approval on construction TS 35/10 kV "Grdelica-Nova" in function of high-way E-75, Oraovica, Grdelica	ROP-MSGI-6324-ISAWHA-4/2017, Br.351-05-00056/2017-07, од 14.08.2017.	-	Republic of Serbia, Ministry of Construction, Transport and Infrastructure
Work submission od construction of TS 35/10 kV "Grdelica-Nova" in function of high-way E75, Oraovica, Grdelica	ROP-MSGI-6324-WA-7/2017, Br.351-06-00099/2017-07, од 11.09.2017.	-	Republic of Serbia, Ministry of Construction, Transport and Infrastructure
Decision on works approval on construction 10 kV cable line from TS 10/0.4 kV "Industrijska Nova" to TS 400/220/110 kV "Leskovac 2", in Leskovac	ROP-LES-18400 - ISAW-1/2017, Br.351-13856/17-02, од 04.07.2017.	-	City of Leskovac
Site information (the old ones have expired) for construction of overhead TL 35 kV from Vlasotince to Tegošnice, length 20.7 km	ROP-VLS-34029-LOC-1/2017 Br.03-353-146/2017, од 21.11.2017.	-	Vlasotince Municipality
Site information (the old ones have expired) for construction of overhead TL 35 kV from Tegošnice to Sastav Reka, length 7.3 km	ROP-CTR-34000-LOC-1/2017 Br.353-11/2017-05, од 28.11.2017.	-	Crna Trava Municipality
Decision on works approval on construction STS 10/0.4 kV "CENTUM", power of 250 kVA and conn. line 10 kV, in Leskovac	ROP-LES-1282 - ISAWHA-2/2017, Br.351-11766/17-02, од 09.02.2017.	-	City of Leskovac
Works submission on construction STS 10/0.4 kV "CENTUM", power of 250 kVA and conn. line 10 kV, in Leskovac	ROP-LES-1282 -WA-3/2017, Br.351-11812/17-02, од 20.02.2017.	-	City of Leskovac
Decision on usage permit of the facility STS 10/0.4 kV "CENTUM", power of 250 kVA and conn. line 10 kV, in Leskovac	ROP-LES-1282 -IUP-5/2017, Br.351-11950/17-02, од 21.03.2017.	-	-
ED VRANJE			
Decision on construction permit for legalisation of TS 35/10 kV "Vladičin Han 1"	IV Број: 351-1203/17-03	-	Vladičin Han
Decision on works approval on construction STS 10/0.4 kV "Osatica" with conn. line 10 kV in village Moštanica	ROP-VRE-22323-ISAW-1/2017	-	Vranje
Decision on works approval on construction STS 10/0.4 kV "Smiljević 2" with conn. line 10 kV in village Smiljević	ROP-VRE-36801-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

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 grounwater quality**
- **Soil quality**

5.2.1. Electromagnetic fields

Environmental electromagnetic fields measuring at the territory of DA Niš was not carried out in 2017.

5.2.2. Environmental Noise

Environmental Noise measuring at the territory of DA Niš was not carried out during 2017.

5.2.3. Waste

Waste production in 2017 is presented in Table 186 according to the Serbian waste management regulations

Table 186

DISTRIBUTION AREA NIS											
Waste in 2017											
No.	**Rules defining waste categories, its testing and classification Official Gazette of RS No 56/10 dated: 10th August 2010**	**Index number**	**Unit**	**Branch**						**Total**	**Note**
				ED ZAJECAR	**ED PROKUPLJE**	**ED NIS**	**ED PIROT**	**ED LESKOVAC**	**ED VRANJE**	**DISTRIBUTION AREA NIS**	
				Amounts							
1	Mineral non-chlorinated motor oils, oils for gears and lubrication oils	13 02 05*	t	**0,144**	0,000	0,000	0,060	0,000	0,000	**0,204**	Motor oil
2	Mineral non-chlorinated oils for insulation and heat transfer	13 03 07*	t	**0,200**	0,000	0,000	0,310	0,000	0,000	**0,510**	Transformer oil
3	Waste not otherwise specified	13 08 99*	t	**0,000**	0,000	0,000	0,100	0,000	0,000	**0,100**	Oily soil and absorbents
4	Wooden packaging	15 01 03	t	**1,650**	0,000	0,000	0.300	0,000	0,000	**1,950**	(wooden packaging)
5	Waste tires	16 01 03	t	**1,855**	0,06	0,000	0,250	0,000	0,000	**2,165**	Car and truck tires
6	Discarded vehicles not containing fluids or other hazardous components	16 01 06	t	**1,544**	0,000	17	7,200	0,000	0,000	**25,744**	Old vehicles without hazardous fluids
7	Ferrous materials	16 01 17	t	**0,530**	0,000	0,000	0,000	0,000	0,000	**0,530**	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	**0,368**	0,000	0,000	0,210	0,000	0,000	**0,578**	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	0,200	0,000	0,000	**0,200**	Transformers. cable heads
10	Lead batteries	16 06 01*	t	**0,660**	0,18	0,000	0,120	0,000	0,000	**0,960**	Batteries
11	Ni-Cd batteries	16 06 02*	t	**0,002**	0,000	0,000	0,000	0,000	0,000	**0,002**	Ni-Cd batteries
12	Concrete	17 01 01	t	**0,000**	0,000	0,000	10,000	0,000	5,680	**15,680**	Old concrete columns. column foundation
13	Tiles and ceramics	17 01 03	t	**1,490**	0,000	0,000	0,400	0,000	0,000	**1,890**	(porcelain insulators)
14	Copper, bronze, brass	17 04 01	t	**0,311**	0,000	0,000	0,000	0,000	0,000	**0,311**	Copper
15	Aluminium	17 04 02	t	**4,040**	0,000	0,000	0,300	0,000	2,214	**6,554**	Waste wire – aluminium-steel
16	Iron and steel	17 04 05	t	**2,190**	0,000	0,000	0,200	0,000	0,000	**2,390**	Pieces
17	Cables other than specified in 17 04 10	17 04 11	t	**1,070**	0,000	0,000	0.500	0,000	0,000	**1,570**	Waste cables with plastic protection

18	Paper and card board	20 01 01	t	**0,700**	0,000	0,000	0,700	0,000	0,000	**1,400**	Paper and card board
19	Fluorescent pipes and other waste containing mercury	20 01 21*	t	**0,025**	0,000	0,000	0,005	0,000	0,000	**0,030**	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	**1,390**	0,000	0,000	0,000	0,000	0,000	**1,390**	(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	**0,262**	0,100	1,500	0,000	0,000	0,000	**1,862**	(computers, monitors)
22	Wood containing hazardous substances	20 01 37*	t	**0,000**	0,000	0,000	0,000	0,000	8,600	**8,600**	(impregnated wooden poles)

5.2.4. Surface, Ground Waters and Soil Monitoring

In 2017 emptying and disinfection of the oily pits were conducted in the area of the Branch Zaječar in TS 110/35/6 kV "Veliki Krivelj" and device for monitoring the liquids level in the oily pit was installed based on a framework agreement for the provision of services "maintaining the existing oily bunds, drains and oily pits and improvement of liquid hazardous waste management system with the delivery of related hardware and software", according to conducted PP No 180-16 (pilot project in DA Niš).

In 2017 in the area of the Branches Niš, Leskovac, Vranje and Pirot soil monitoring was performed in the vicinity of the oily pits of TS 110/35 kV, but we have not received the results yet.

5.3. Working Environment Monitoring, Occupational Health and Safety

Occupational Health and Safety Reports for 2017 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 2017 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.

Measurement results are presented in Table 187.

Table 187

DISTRIBUTION AREA NIŠ			
Noise in working environment in 2017			
Branch	**Location**	**Registered noise level in working premises in ((dB) (A))**	**Permitted noise level in (dB (A))**
ED LESKOVAC	Measurings were not performed in 2017		
ED PIROT	Measurings were not performed in 2017		
ED ZAJEČAR	Measurings were not performed in 2017		
ED VRANJE	Measurings were not performed in 2017		
ED PROKUPLJE	Measurings were not performed in 2017		

ED NIŠ	Calibration room, Counter hall	59	85
	Calibration room, Laboratory for meters testing	67	85
	Calibration room, Meters service	65	85
	Calibration room, Meters service – 1. floor	62	85
	Calibration room, Timers service 1	60	85
	Calibration room, Timers service 2	65	85
	Calibration room, Office 1	58	85
	Calibration room, Office 2	58	85
	Dispatch centre, Counter hall	65	85
	Dispatch centre, PDC office Niš	62	85
	Dispatch centre, Hall-dispatch centre	60	85
	Dispatch centre, Call centre	54	85
	Dispatch centre, Department for planning and operational management	55	85
	Dispatch centre, Management HQ	54	85
	Dispatch centre, Department for MIZ and automatisation DEES Sector for management	58	85
	Dispatch centre, MIZ and automatisation DC	55	85
	Dispatch centre, KSO hall	56	85
	Dispatch centre, Dispatch centre office	58	85

- **Working Environment Vibrations**

During 2017 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 of Calibration room and Dispatch centre. The measured results show that the vibrations are not harmful.

Measurement results are presented in Table 188.

Table 188

DISTRIBUTION AREA NIŠ			
Vibrations in working environment in 2017			
Branch	**Measuring location**	**Measured level of mechanical vibrations (м/s2)**	**Daily limit value for the exposure of the whole body (м/s2)**
ED LESKOVAC	Measurings were not performed in 2017		
ED PIROT	Measurings were not performed in 2017		
ED ZAJECAR	Measurings were not performed in 2017		
ED VRANJE	Measurings were not performed in 2017		
ED PROKUPLJE	Measurings were not performed in 2017		
ED NIS	Calibration room, Counter hall	Vibrations are not harmful	
	Calibration room, Laboratory for meters testing	Vibrations are not harmful	
	Calibration room, Meters service	Vibrations are not harmful	
	Calibration room, Meters service – 1. floor	Vibrations are not harmful	
	Calibration room, Timers service 1	Vibrations are not harmful	
	Calibration room, Timers service 2	Vibrations are not harmful	
	Calibration room, Office 1	Vibrations are not harmful	
	Calibration room, Office 2	Vibrations are not harmful	
	Dispatch centre, Counter hall	Vibrations are not harmful	
	Dispatch centre, PDC office Niš	Vibrations are not harmful	
	Dispatch centre, Hall-dispatch centre	Vibrations are not harmful	
	Dispatch centre, Call centre	Vibrations are not harmful	
	Dispatch centre, Department for planning and operational management	Vibrations are not harmful	
	Dispatch centre, Management HQ	Vibrations are not harmful	
	Dispatch centre, Department for MIZ and automatisation DEES Sector for management	Vibrations are not harmful	
	Dispatch centre, MIZ and automatisation DC	Vibrations are not harmful	
	Dispatch centre, KSO hall	Vibrations are not harmful	
	Dispatch centre, Dispatch centre office	Vibrations are not harmful	

- **Working Environment Chemical Hazards**

During 2017 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 of Calibration room and Dispatch centre. The measured results show that chemical hazards are not harmful.

Measurement results are presented in the Table 189.

Table 189

DISTRIBUTION AREA NIŠ			
Chemical hazards in working environment in 2017			
Branch	**Measuring location**	**Measured value (mg/m3)**	**LV (TLV) (mg/m3)**
ED LESKOVAC	Measurings were not performed in 2017		
ED PIROT	Measurings were not performed in 2017		
ED ZAJECAR	Measurings were not performed in 2017		
ED VRANJE	Measurings were not performed in 2017		
ED PROKUPLJE	Measurings were not performed in 2017		
ED NIS	Calibration room, Counter hall	Chemical hazards are not harmful	
	Calibration room, Laboratory for meters testing	Chemical hazards are not detected	
	Calibration room, Meters service	Chemical hazards are not detected	
	Calibration room, Meters service – 1. floor	Chemical hazards are not detected	
	Calibration room, Timers service 1	Chemical hazards are not detected	
	Calibration room, Timers service 2	Chemical hazards are not detected	
	Calibration room, Office 1	Chemical hazards are not harmful	
	Calibration room, Office 2	Chemical hazards are not harmful	
	Dispatch centre, Counter hall	Chemical hazards are not detected	
	Dispatch centre, PDC office Niš	Chemical hazards are not detected	
	Dispatch centre, Hall-dispatch centre	Chemical hazards are not detected	
	Dispatch centre, Call centre	Chemical hazards are not detected	
	Dispatch centre, Department for planning and operational management	Chemical hazards are not detected	
	Dispatch centre, Management HQ	Chemical hazards are not detected	
	Dispatch centre, Department for MIZ and automatisation DEES Sector for management	Chemical hazards are not detected	
	Dispatch centre, MIZ and automatisation DC	Chemical hazards are not detected	
	Dispatch centre, KSO hall	Chemical hazards are not detected	
	Dispatch centre, Dispatch centre office	Chemical hazards are not detected	

- **Working environment electromagnetic fields**

During 2017 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 190.

Table 190

DISTRIBUTION AREA NIŠ					
Electromagnetic fields in working environment in 2017					
Branch	**Subject testing**	**Measured V/m**		**Allowed V/m**	
		Measured V/m	**Allowed V/m**	**Measured hT**	**Allowed hT**
ED PIROT	Measurings were not performed in 2017	---	---	---	---
ED LESKOVAC	Measurings were not performed in 2017	---	---	---	---
ED ZAJEČAR	Measurings were not performed in 2017	---	---	---	---
ED VRANJE	Measurings were not performed in 2017	---	---	---	---
ED PROKUPLJE	Measurings were not performed in 2017	---	---	---	---

ED NIŠ	Calibration room, Counter hall	Low frequency EM field was not detected			
	Calibration room, Laboratory for meters testing	Low frequency EM field was not detected			
	Calibration room, Meters service	Low frequency EM field was not detected			
	Calibration room, Meters service – 1. floor	Low frequency EM field was not detected			
	Calibration room, Timers service 1	Low frequency EM field was not detected			
	Calibration room, Timers service 2	Low frequency EM field was not detected			
	Calibration room, Office 1	Low frequency EM field was not detected			
	Calibration room, Office 2	Low frequency EM field was not detected			
	Dispatch centre, Counter hall	Harmful radiation are not harmful			
	Dispatch centre, PDC office Niš	Harmful radiation are not harmful			
	Dispatch centre, Hall-dispatch centre	559.6	559.6	559.6	559.6
	Dispatch centre, Call centre	Harmful radiation are not harmful			
	Dispatch centre, Department for planning and operational management	Harmful radiation are not harmful			
	Dispatch centre, Management HQ	Harmful radiation are not harmful			
	Dispatch centre, Department for MIZ and automatisation DEES Sector for management	Harmful radiation are not harmful			
	Dispatch centre, MIZ and automatisation DC	Harmful radiation are not harmful			
	Dispatch centre, KSO hall	865	865	865	865
	Dispatch centre, Dispatch centre office	Harmful radiation are not harmful			

- **Working environment parameters**

In DA Niš the testing of working environment parameters for winter period in 2017 was carried out by the Institute "1. Maj" – Niš. All checked working environment parameters for summer period with results of measurements meet working criteria.

Parameters monitoring of temperature, relative humidity and velocity for winter period in 2017 in DA Niš is given in Table 191.

Table 191

DISTRIBUTION AREA NIŠ					
Temperature, relative humidity and velocity					
Branch ED NIŠ					
№	**Measuring location**	**Monitoring**			**Note**
		t *C	**Rv %**	**Vm/s**	**Зона комфора**
1.	Calibration room, Counter hall	23,4	60,5	0,07	Within zone
2.	Calibration room, Laboratory for meters testing	23,8	49,0	0,05	Within zone
3.	Calibration room, Meters service	23,0	49,1	0,04	Within zone
4.	Calibration room, Meters service – 1. floor	21,8	54,0	0,04	Within zone
5.	Calibration room, Timers service 1	22,1	47,4	0,08	Within zone
6.	Calibration room, Timers service 2	22,6	48,1	0,07	Within zone
7.	Calibration room, Office 1	23,4	49,2	0,07	Within zone
8.	Calibration room, Office 2	23,4	51,0	0,08	Within zone
9.	Dispatch centre, Counter hall	23,6	37,7	0,05	Within zone
10.	Dispatch centre, PDC office Niš	23,8	34,5	0,07	Within zone
11.	Dispatch centre, Hall-dispatch centre	23,9	37,8	0,07	Within zone
12.	Dispatch centre, Call centre	22,0	38,1	0,07	Within zone
13.	Dispatch centre, Department for planning and operational management	22,5	32,8	0,05	Within zone
14.	Dispatch centre, Management HQ	22,1	42,9	0,08	Within zone

15.	Dispatch centre, Department for MIZ and automatisation DEES Sector for management	22,3	42,2	0,08	Within zone
16.	Dispatch centre, MIZ and automatisation DC	21,6	45,3	0,05	Within zone
17.	Dispatch centre, KSO hall	15,6	49,5	0,05	Within zone
18.	Dispatch centre, Dispatch centre office	23,8	37,5	0,06	Within zone
Branch ED Pirot					
Temperature, relative humidity and velocity					
№	**Measuring location**	**Monitoring**			**Note**
		t *C	**Rv %**	**Vm/s**	**Зона комфора**
	Measurings were not performed in 2017	---	---		Measurings were not performed in 2017
Branch ED Leskovac					
Temperature, relative humidity and velocity					
№	**Measuring location**	**Monitoring**			**Note**
		t *C	**Rv %**	**Vm/s**	**Зона комфора**
	Measurings were not performed in 2017	---	---		Measurings were not performed in 2017
Branch ED Zaječar					
Temperature, relative humidity and velocity					
№	**Measuring location**	**Monitoring**			**Note**
		t *C	**Rv %**	**Vm/s**	**Зона комфора**
	Measurings were not performed in 2017	---	---		Measurings were not performed in 2017
Branch ED Vranje					
Temperature, relative humidity and velocity					
№	**Measuring location**	**Monitoring**			**Note**
		t *C	**Rv %**	**Vm/s**	**Зона комфора**
	Measurings were not performed in 2017	---	---		Measurings were not performed in 2017
Branch ED Prokuplje					
Temperature, relative humidity and velocity					
№	**Measuring location**	**Monitoring**			**Note**
		t *C	**Rv %**	**Vm/s**	**Зона комфора**
	Measurings were not performed in 2017	---	---		Measurings were not performed in 2017

Monitoring parameters of illumination for winter period in 2017 in DA Niš is give in Table 192.

Table 192

DISTRIBUTION AREA NIŠ					
Illumination					
Branch ED Niš					
№	**Measuring location**	**Monitoring**			**Note**
		Illumination	Average illumination (lx)		Illumination
			Measured	Request by SRPS	
1.	Calibration room, Counter hall	combined	310	150-300	sufficient
2.	Calibration room, Laboratory for meters testing	combined	765	150-300	sufficient
3.	Calibration room, Meters service	combined	850	150-300	sufficient
4.	Calibration room, Meters service – 1. floor	combined	630	150-300	sufficient
5.	Calibration room, Timers service 1	combined	273	150-300	sufficient
6.	Calibration room, Timers service 2	combined	338	150-300	sufficient
7.	Calibration room, Office 1	combined	247	150-300	sufficient
8.	Calibration room, Office 2	combined	288	150-300	sufficient
9.	Dispatch centre, Counter hall	combined	173	150-300	sufficient
10.	Dispatch centre, PDC office Niš	combined	783	150-300	sufficient
11.	Dispatch centre, Hall-dispatch centre	combined	880	150-300	sufficient
12.	Dispatch centre, Call centre	combined	980	150-300	sufficient
13.	Dispatch centre, Department for planning and operational management	combined	609	150-300	sufficient
14.	Dispatch centre, Management HQ	combined	748	150-300	sufficient
15.	Dispatch centre, Department for MIZ and automatisation DEES Sector for management	combined	810	150-300	sufficient
16.	Dispatch centre, MIZ and automatisation DC	combined	235	150-300	sufficient
17.	Dispatch centre, KSO hall	combined	88	80-150	sufficient
18.	Dispatch centre, Dispatch centre office	combined	730	150-300	sufficient
Branch ED Pirot					
Illumination					
№	**Measuring location**	**Monitoring**			**Note**
		Illumination	Illumination (lx)		Illumination
			Measured	Sufficient	
	Measurings were not performed in 2017	---	---	---	---
Branch ED Leskovac					
Illumination					
№	**Место мерења**	**Monitoring**			**Note**
		Illumination	Illumination (lx)		Illumination
			Measured	Sufficient	
	Measurings were not performed in 2017	---	---	---	---
Branch ED Zajecar					
Illumination					
№	**Место мерења**	**Monitoring**			**Note**
		Illumination	Illumination (lx)		Illumination
			Measured	Sufficient	
	Measurings were not performed in 2017	---	---	---	---
Branch ED Vranje					
Illumination					
№	**Место мерења**	**Monitoring**			**Note**
		Illumination	Illumination (lx)		Illumination
			Measured	Sufficient	
	Measurings were not performed in 2017	---	---	---	---

Branch ED Prokuplje					
Illumination					
№	**Место мерења**	**Monitoring**			**Note**
		Illumination	Illumination (lx)		Illumination
			Measured	Sufficient	
	Measurings were not performed in 2017	---	---	---	---

5.3.2. Safety

- **Training**

Training report is presented in Table 193.

Table 193

DISTRIBUTION AREA					
Training in 2017					
Branch	**Number of employees**	**For training**		**Trained**	
		No	%	**No**	%
ED Niš	**138**				
Safety training		130	94,20	130	100,00
Safety training on overhead lines		2	1,45	2	100,00
ED Leskovac	**79**				
Safety training		79	100,00	79	100,00
Safety training on overhead lines		2	2,53	2	100,00
ED Zaječar	**118**				
Safety training		79	66.95	79	100.00
Safety training-transfer to new position		2	1,69	2	100,00
Safety training on overhead lines		3	2,54	3	100,00
ED Vranje	**31**				
Safety training		38	122,58	38	100,00
Knowledge testing in HSTP		24	77,42	24	100,00
Safety training with new equipment for works on heights-safety harness		16	51,61	16	100,00
Safety training on overhead lines		4	12,90	4	100,00
ED Pirot	**32**				
Safety training		23	71,87	23	100,00
Safety training-transfer to new position		10	31,25	10	100,00
Safety training with new equipment for works on heights-safety harness		7	21,87	7	100,00
Safety training on overhead lines		2	6,25	2	100,00
ED Prokuplje	**43**				
Safety training		43	100,00	43	100,00
Knowledge testing in HSTP		26	60,47	26	100,00
Safety training with new equipment for works on heights-safety harness		15	34,88	15	100,00
Safety training on overhead lines		33	76,74	33	100,00
Introduction to manual and risk: work on ladders		23	53,49	23	100,00
Management DA Niš	**129**				
Safety training		87	67,44	87	100,00

Training and testing of employees in fire protection		87	67,44	87	100,00
TOTAL NUMBER OF TRAINING OF EMPLOYEES IN 2017 DA NIŠ					
Safety training	**570**	479	84,04	479	100,00
Knowledge testing in HSTP		50	8,77	50	100,00
Safety training with new equipment for works on heights-safety harness		38	6,67	38	100,00
Testing of employees in fire protection		87	15,26	87	100,00
Safety training-transfer to new position		12	2,11	12	100,00
Safety training on overhead lines		46	8,07	46	100,00
Introduction to manual and risk: work on ladders		23	4,04	23	100,00

Note: Number of employees is calculated on 31st December 2017. 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%.

Additional trainings which are not connected with permanently employed in DA Niš but which they were conducted in 2017 are presented in Table 194.

Table 194

DISTRIBUTION AREA NIŠ				
Additional trainings which are not connected with permanently employed in DA Niš but which they were conducted in 2017				
Branch/Object	**For training**		**Trained**	
	№	**%**	**№**	**%**
ED Niš				
Safety training for employees under the contract on temporary works	20	100,00	20	100,00
ED Vranje				
Safety training for employees under the contract on temporary works	5	100,00	5	100,00
Training of employees from the department of technical services Vranje as management support	12	100,00	12	100,00
ED Prokuplje				
Safety training for employees under the contract on temporary works	5	100,00	5	100,00
Training of employees from the department of technical services Prokuplje as management support	15	100,00	15	100,00
Management DA Niš				
Safety training for employees under the contract on temporary works	13	100,00	13	100,00
Acquainting contractors with dangers and hazards, OSH measures and rules of conduct	872	100,00	872	100,00
Acquainting students and pupils at practice with OSH measures and rules of conduct	4	100,00	4	100,00
Acquainting visitors and service providers with OSH measures and rules of conduct	46	100,00	46	100,00
TOTAL: DISTRIBUTION AREA NIŠ				
Safety training for employees under the contract on temporary works	43	100,00	43	100,00
Training of employees from the department of technical services Niš	27	100,00	27	100,00
Acquainting contractors with dangers and hazards, OSH measures and rules of conduct	872	100,00	872	100,00
Acquainting students and pupils at practice with OSH measures and rules of conduct	4	100,00	4	100,00
Acquainting visitors and service providers with OSH measures and rules of conduct	46	100,00	46	100,00

- **Work injuries**

- The number of injuries in 2017 is presented in Table 195.

Table 195

DISTRIBUTION AREA NIS						
Work injuries in 2017						
Branch	**Number of employees**	**Work injuries in relation to the number of employees**				
		light	**light**	**light**	**light**	**light**
ED Nis	**138**	2	0	0	2	1,45
ED Leskovac	**79**	2	0	0	2	2,54
ED Zajecar	**118**	2	1	0	3	2,22
ED Vranje	**31**	0	0	0	0	0,00
ED Pirot	**32**	0	1	0	1	3,13
ED Prokuplje	**43**	1	0	0	1	2,33
HQ DA Nis	**129**	1	0	0	1	0,78
TOTAL: DISTRIBUTION AREA NIS	**570**	**8**	**2**	**0**	**10**	**1,75**

5.3.3. Health protection

Periodic medical examinations of employees, presented in Table 196. They are performed regularly for all newly employed workers and workers on working places with special working conditions.

Table 196

DISTRIBUTION AREA NIŠ											
Work capability of the employees in 2017											
Branch	**Number of employees**	**Periodic examination**				**Work capability**					
		Referred to examination		**Examined**		**Capable**		**Limited capability**		**Incapable**	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
ED Nis	138	92	66,67	88	95,65	80	90,91	4	4,55	4	4,55
ED Leskovac	79	45	56,96	45	100,00	41	91,11	4	8,89	0	0,00
ED Zajecar	118	81	68,64	81	100,00	57	70,37	25	30,86	0	0,00
ED Vranje	31	24	77,42	24	100,00	22	91,67	2	8,33	0	0,00
ED Pirot	32	30	93,75	29	96,67	23	79,31	5	17,24	1	3,45
ED Prokuplje	43	24	55,81	24	100,00	22	91,67	2	8,33	0	0,00
Management DA Niš	129	14	10,85	14	100,00	13	92,86	1	7,14	0	0,00
TOTAL DISTRIBUTION AREA NIS	**570**	**310**	**54,39**	**305**	**98,39**	**258**	**84,59**	**43**	**14,10**	**5**	**1,64**

Note: During the year, the number of employees was higher than shown in the table, but it was gradually reduced. Percentage is calculated based on the number of employees taken on 31st December 2017|.

5.4. Public Complaints

There were no public complaints in 2017.

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, steps taken to address these.

Power Generation Facilities

For each Power Plant:

- C 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
Particulate Matter		
Sulphur Dioxide (CO_2)		
Nitrogen Oxides NO_x (NO_2)		

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.135/04, 36/2009, 36/2009-other law, 82/2009, 43/2011- Constitutional Court decision and 14/2016)
2. Law on Environmental Impact Assessment "Official Gazette RS", No. 135/04 and 88/2010
3. Law on environmental impact strategic assessment ("Official Gazette RS", no. 135/04 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. Noise Protection Act ("Official Gazette RS" no. 36/2009 and 88/2010)
7. Act on Ionizing Radiation Protection and on Nuclear Safety ("Official Gazette RS", no. 36/2009 and 93/2012)
8. Law on non-ionizing radiation protection ("Official Gazette RS", no. 36/2009)
9. Law on packaging and packaging waste ("Official Gazette RS", no. 36/2009)
10. Law on Biocidal Products ("Official Gazette RS", no. 36/2009, 88/2010, 92/2011 25/2015)
11. Law on chemicals ("Official Gazette RS", no. 36/2009,88/2010, 92/2011 and 93/2012 and 25/2015)
12. Law on waste management ("Official Gazette RS", no. 36/2009, 88/2010 and 14/2016)
13. Law on Environmental Protection ("Official Gazette RS", no. 36/2009, 88/2010, 91/2010 14/2016)
14. Water Law ("Official Gazette RS", no. 30/02010 and 93/2012)
15. Law on meteorological and hydrological activities ("Official Gazette RS", no. 88/2010)
16. Law on transportation of hazardous load ("Official Gazette RS", no. 88/2010)
17. Law on protection and sustainable use of fish stocks, ("Official Gazette RS", No.36/09)
18. Law on Mining and Geological Research ("Official Gazette RS", No. 88/2011)
19. 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)
20. Agricultural Land Law ("Official Gazette RS", No. 62/2006, 65/2008 and 41/2009)
21. Law on forests ("Official Gazette RS", No. 30/2010, 93/2012 and 89/2015)
22. 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)
23. Occupational Safety and Health Protection Law („Official Gazette RS", No. 101/2005 and 91/2015)

REGULATIONS

1. 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),
2. Decree 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 ("Official Gazette RS", No. 71/2010, 6/2011)
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)
8. Regulation on zones and agglomerations classification ("Official Gazette RS", no. 58/2011 and 98/2012)

9. Regulation determining program of air quality control in national network (“Official Gazette RS”, no. 58/2011)
10. 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 list of non-hazardous waste not requiring a permit, with the documentation accompanying cross-border movement ("Official Gazette RS", No. 102/10)
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)
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)
18. 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)
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 Amendment to Regulation on criteria and conditions for return, exemption or reduction of fees for environmental pollution ("Official Gazette RS", No. 24/2010)
24. Regulation on Determination of Activities with Impact on the Environment ("Official Gazette RS", No.109/2009 and 8/10)
25. Regulation on Criteria for Determination of Fees for the Protection and Improvement of the Environment and the Highest Value of the Fee ("Official Gazette RS", No. 111/09)
26. 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 “Official Gazette RS”, No. 84/05
27. Regulation on Content of the Program for Adaptation Measures of the Existing facilities or Activities by Prescribed Conditions ("Official Gazette RS", No. 84/2005)
28. Regulation on types of activities and facilities for which the integrated permit is issued (“Official Gazette RS”, no.135/04)
29. 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),
30. Regulation on amount and conditions for allocation of stimulation funds ("Official Gazette RS", No. 88/2009, 67/2010,101/2010,86/2011 and 35/2012)

31. 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, 41/2013, 3/2014, 81/2014 and 31/2015)
32. Regulation on termination of the Regulation on way and procedures for management of waste containing asbestos ("Official Gazette RS", No. 74/10)
33. Regulation on waste oil management ("Official Gazette RS", No. 60/2008 and 8/2010)
34. 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)
35. Regulation amending the air quality monitoring conditions and requirements regulation ("Official Gazette RS", no. 75/2010)
36. 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)
37. Regulation on emission limit values in waters and deadlines for the achievement thereof ("Official Gazette RS", No. 67/11 and 48/12)
38. 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)
39. Regulation on establishing the program for systematic testing of non-ionizing radiation levels in the environment for the period from 2015 to 2016 ("Official Gazette RS", no. 105/2015)
40. 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)
41. Regulation on types of pollution, criteria for calculation of compensation for environmental pollution and persons liable, amount and method for calculation and payment of compensation ("Official Gazette RS", No. 113/2005, 6/2007, 8/2010, 102/2010,15/2012, 91/2012, 30/2013 and 25/2015)
42. Regulation on criteria for determination of the environmental protection compensation and the highest amount of compensation ("Official Gazette RS", № 111/09)

RULES

1. Regulation 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. 69/2005
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. 72/09)
17. Rules on form of request for the issuance of permit for waste storage, treatment and disposal ("Official Gazette RS", no.72/2009)
18. Rules on form of request for the issuance of permit for waste storage, treatment and disposal ("Official Gazette RS", no.72/2009)
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. 96/2009)
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. 95/2010)
22. Rules on the form of the document on hazardous waste transport and instructions how to fill in the form („Official Gazette RS", 114/2013)
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. 104/09)
27. Rules on manner and procedure for management end-of-life vehicles ("Official Gazette RS", No. 98/10)
28. 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 how to destroy medicines, auxiliary medical devices and medical devices ("Official Gazette FRY", no. 16/1994, and 22/1994 – correct. , "Official Gazette Serbia and Montenegro", no. 1/2003, Constitutional Charter and "Official Gazette RS", no. 78/2010 – other rules)
32. 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. 98/10
33. 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)
34. Rules on devices and waste containing PCB ("Official Gazette RS", no. 37/2011)
35. Instructions defining preventive measures for safe keeping, storage, i.e. use of extremely hazardous chemicals ("Official Gazette RS", no. 94/2010)
36. Rules on import and export of extremely hazardous chemicals ("Official Gazette RS", 89/2010,15/2013 and 114/2014)
37. Rules on the content of the safety list ("Official Gazette RS", No. 100/11)
38. Rules on chemical registry ("Official Gazette RS", No. 100/2011, 16/2012, 47/2012, 15/2013, 115/2013 and 1/201on 5)
39. Rules on bans and restrictions of production, placement on the market and use of chemicals ("Official Gazette of RS", no. 90/2013 and 25/2015)
40. Rules on the criteria to identify substances as PBT or vPvB ("Official Gazette ES" no. 23/2010)

41. Rules on permits allowing transactions, i.e. on permits allowing the use extremely hazardous chemicals ("Official Gazette RS", no. 94/2010, 55/2011 and 15/2013)
42. Rules on detergents („Official Gazette RS" no. 25/2015)
43. 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)
44. Rules on the manner of chemical record keeping ("Official Gazette", no. 31/2011)
45. Rules on classification, packaging, labelling and advertising of certain chemicals and products ("Official Gazette RS", no. 59/2010, 25/2011 and 5/2012)
46. 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)
47. 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)
48. List of substances of high concern ("Official Gazette RS", No. 94/2013)
49. 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 ("Official Gazette RS", 74/2010, 116/2012 and 58/2014)
50. 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)
51. Rules on water facilities/ structures cadaster ("Official Gazette RS", no. 34/2011)
52. Rules on the content and manner of keeping the register of issued integrated permits ("Official Gazette RS" no. 69/2005)
53. Rules on the content, layout and manner of completing the application for integrated permit ("Official Gazette RS", no. 30/2006)
54. Rules on the content and layout of integrated permit ("Official Gazette RS", no. 30/2006)
55. 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
56. Rulebook on the limits of exposure to non-ionizing radiation ("Official Gazette of the RS", no. 104/2009)
57. 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)
58. Rulebook on the content of records of the sources of non-ionizing radiation of special interest ("Official Gazette of the RS" No. 104/2009)
59. 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)
60. 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)
61. 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)
62. 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)
7. 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 contracts", № 2/99)
7. Law ratifying The United Nations Framework Convention on Climate Change, with Annexes ("Official Journal of SRJ - International Treaties ", No. 2/97)
8. 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 on Long-term 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 Journal of SFRY "- International Treaties, No. 16/90
26. Law Ratifying the Convention on physical protection of nuclear material "Official Journal of SFRY "- International Treaties, No. 9/85
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 occupational health services "Official Gazette SRJ "- International Treaties, No. 14/89
35. Law Ratifying the Convention for safe use of asbestos "Official Gazette SRJ "- International Treaties, No. 4/89
36. Law Ratifying the European Convention for the Protection of the Archaeological Heritage "Official Gazette SRJ "- International Treaties, No. 9/90
37. Law Ratifying the European Convention for the Protection of the Architectural Heritage "Official Gazette SRJ "- International Treaties, No. 4/91
38. 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
CHPP	Combined Heat and Power Plant
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–OCM	Thermal Power Plant – Open Cast Mine
CHPP	Combined Heat and Power Plant
SS	Substation
TPM	Total Particulate Matters
HPP	Hydro Power Plant