

Cadastre of Air Emission Sources

Emitter	Parametar	Proposed ELVs for the thermal waste treatment facility of the subject Waste-to-Energy Plant ¹	Unit	Reference Method	Averaging Period According to BAT
Boiler unit emission source <i>Coordinates:</i> [Lat/Long] 44.284570 22.616845	Volumetric flow	/	Nm ³ /h	/	Continuous
	Temperature	/	°C	/	
	N ₂ O	/	mg/Nm ³	SRPS EN ISO 21258:2011	Once per year
	Benzo[a]pyrene	/	mg/Nm ³	No EN standards	Once per year
	Total particulate matter	5	mg/Nm ³	General EN standards and EN 13284-2	Daily average
	Cd+Tl	0,02	mg/Nm ³	EN 14385	Average over sampling period
	Sb+As+Pb+Cr+Co+Cu+Mn+Ni+V	0,3	mg/Nm ³	EN 14385	Average over sampling period
	HCl	6	mg/Nm ³	General EN standards	Daily average
	HF	1	mg/Nm ³	General EN standards	Daily average or average over sampling period
	SO ₂	30	mg/Nm ³	General EN standards	Daily average
	NO _x	120	mg/Nm ³	General EN standards	Daily average
	CO	50	mg/Nm ³	General EN standards	Daily average
	NH ₃	10	mg/Nm ³	General EN standards	Daily average
	TVOC	10	mg/Nm ³	General EN standards	Daily average
	Dioxins and furans (PCDD/F)	0,04	ng I-TEQ/Nm ³	EN 1948-1, EN 1948-2, EN 1948-3	Average over sampling period
		0,06		EN 1948-1, EN 1948-2, EN 1948-4	Long-term sampling (limit not applicable if emission is proven to be sufficiently stable)
	Hg	20	µg/Nm ³	General EN standards and EN 14884	Daily average or average over sampling period

Emitter	Parametar	Proposed ELVs for the thermal waste treatment facility of the subject Waste-to-Energy Plant ¹	Unit	Reference Method	Averaging Period According to BAT
		10			Long-term sampling
1. Emission source of the waste pre-treatment filtration system and activated carbon filter Coordinates: [Lat/Long] 44.285472 22.617081	Particulate matter	5	mg/Nm ³	EN 13284-1	Once every six months
	TVOC (<i>BAT-AEL applies only when the organic compounds in question are identified as relevant in the waste gas stream, based on the inventory referred to in BAT 3 WT</i>)	30	mg/Nm ³	EN 12619	Once every six months
	Organic compounds, expressed as total carbon	20	mg/Nm ³	-	-
2. Emission source of the stabilization and solidification process filtration system Coordinates Coordinates: [Lat/Long] 44.284418 22.616549	Particulate matter	5	mg/Nm ³	EN 13284-1	Once every six months

¹ The proposed emission limit values (ELVs) are based on BAT conclusions (BATC) and are stricter than the values prescribed by the regulations of the Republic of Serbia. The final ELVs are determined within the process of issuing the Integrated Pollution Prevention and Control (IPPC) permit, after the trial operation period of the plant, taking into account the BAT conclusions applicable to the demonstrated production process of the facility (after commissioning).

Emitter Cadastre for Water Emissions

Emitter	Parameter	Proposed ELVs for wastewater discharge from the flue gas treatment system of the subject waste-to-energy facility ¹	Unit	Reference Method	Minimum Monitoring Requirement
1. Wastewater from the flue gas treatment system of the thermal treatment plant	Total Suspended Solids (TSS)	30	mg/l	EN 872	Daily
	Total Organic Carbon (TOC)	40	mg/l	EN 1484	Monthly
	As	0,05	mg/l	Various EN standards (e.g. EN ISO 11885, EN ISO 15586 or EN ISO 17294-2)	Monthly
	Cd	0,03	mg/l		
	Cr	0,1	mg/l		
	Cu	0,15	mg/l		
	Hg	0,01	mg/l		
	Ni	0,15	mg/l		
	Pb	0,06	mg/l		
	Sb	0,9	mg/l		
	Ti	0,03	mg/l		
	Zn	0,5	mg/l		
	Dioxins and Furans (PCDD/F)	0,05	ng-I-TEQ/l	No EN standard	Once every 6 months (if emission stability is demonstrated)

¹ The proposed emission limit values (ELVs) are based on BATC and are stricter than those prescribed by the regulations of the Republic of Serbia. The final ELVs are determined as part of the Integrated Permit (IPPC) issuance process, following the commissioning and trial operation period of the facility, taking into account the BAT conclusions relevant to the demonstrated production process of the plant (post start-up).

Emitter	Parameter	ELV ¹	Unit	Reference Method	Minimum Monitoring Frequency According to the Rulebook on the Manner and Conditions for Measuring the Quantity and Testing the Quality of Wastewater and Its Impact on the Recipient and the Content of the Report on Performed Measurements ("Official Gazette of RS", no. 18/2024)
2. <i>Atmospheric potentially oil-contaminated wastewater at the outlet of the oil derivative separator (2 units):</i>	Temperature	30	°C	SRPS H.Z1.106	Four times per year
	pH	6,5-9	/	SRPS EN ISO 10523	
	Biochemical Oxygen Demand (BOD ₅)	40	mgO ₂ /l	SRPS EN ISO 1899-2	
	Chemical Oxygen Demand (COD)	150	mgO ₂ /l	SRPS ISO 6060	
	Hydrocarbon Index	10	mg/l	SRPS EN ISO 9377-2	
3. <i>Sanitary–foul (domestic) wastewater after treatment in the bio-disc unit</i>	Biochemical Oxygen Demand (BOD ₅) ^{2,5,6}	25 40 ³	mgO ₂ /l	SRPS EN ISO 1899-2	One time per year
	Chemical Oxygen Demand (COD) ⁵	125	mgO ₂ /l	SRPS ISO 6060	
	Total Suspended Solids (TSS) ^{4,7}	35 (more than 10 000 PE) 60(2000 do 10 000 PE)	mg/l	SRPS EN ISO 9308	

¹ According to the Decree on Limit Values of Pollutant Emissions into Water and Deadlines for Their Achievement ("Official Gazette of RS", no. 67/2011, 48/2012, and 1/2016)

² This parameter may be substituted by another: total organic carbon (TOC) or total chemical oxygen demand (total COD), provided that a correlation between BOD₅ and these parameters can be established.

³ If it can be demonstrated that the discharged wastewater after treatment will not negatively affect the quality of the watercourse.

⁴ Suspended solids are not a mandatory parameter.

⁵ Homogenized, unfiltered, non-decanted sample

⁶ Addition of nitrification inhibitor.

⁷ Filtration of a representative sample through a 0.45 µm membrane filter. Drying at 105 °C and weighing.