



Environment – Quarterly Report – 2nd Quarter 2013

Groundwater and surface water monitoring system

Monitoring system of underground water is centered on plant operation impact on underground water. The surface water quality is monitored in Kotrcina stream at two stream profiles.

Monitoring place	Marking	Pollution parameters
Bore	SM-1, SM-2, SM-3, SM-4, SM-5, PM-1, PM-2, PM-4, PM-7, PM-8, PM-9, PM-10, PM-11, PM-13	temperature, level, pH, conductivity, CHSk-Mn, NEL-IR, BTEX, TOC
Creek - Kotrcina	PV-1, PV-2	temperature, pH, oxygen, conductivity, CHSK-Mn, nitric nitrogen, NEL-IR, BTX, benzene, toluene, xylene, ethylbenzene, hydrocarbon index, TOC
Rainwater sewage <i>(behind oil separator)</i>	DK-2 KIA	NEL-IR



Indexes of industrial waste water contamination

Quantity of industrial waste water discharged into the public sewerage: 99,321.00 m³.

Index	pH	COD _{Cr}	BOD ₅	Soluble Substances	N total	P total
Unit		mg/l	mg/l	mg/l	mg/l	mg/l
Public sewerage limit	6-9	800	400	2,500	70	10
Concentration of pollutants*	8.29	451.00	136.00	1,290.00	15.90	0.51

* Indexes are set by qualified spot sample



Air protection

Kia Motors Slovakia s.r.o. is operating following air pollution sources dividing based on public notice No.410/2012 Coll.:

Large air pollution source	Middle air pollution sources
Paint shop	Press shop
Vehicle process center (VPC)	Body shop
Tank farm	Assembly shop
	Engine shop
	Canteen
	Main office
	Section 6 (Utility buildings)
	Fuel station

During the trial operation there was realized the first authorized emission measurement on the air pollution sources that has obligation of emission measurement based on legislation. The results confirmed the observance of emission limits by all measured air pollution sources.



On June 4 – 5, 2013 there was carried out the authorized periodical measurement of emissions to verify compliance with the set emission limits on some exhausts in object SO 750 Vehicle process centre. The measurement confirmed that the emission limits were complied with.

Exhaust	Pollutant	Emission limit [mg.m ⁻³]	Average measured value [mg.m ⁻³]	Result
V1	particulates	3	<0,4	COMPLIANCE
	TOC	50	22,5	COMPLIANCE
V2	particulates	3	<0,3	COMPLIANCE
	TOC	50	25,4	COMPLIANCE
V4	particulates	3	<0,3	COMPLIANCE
	TOC	50	6,3	COMPLIANCE
V5	particulates	3	<0,3	COMPLIANCE
	TOC	50	7,9	COMPLIANCE
V6	particulates	3	<0,4	COMPLIANCE
	TOC	50	10,8	COMPLIANCE
V7	particulates	3	<0,4	COMPLIANCE
	TOC	50	10,9	COMPLIANCE

Status conditions expressing the mass concentration of 0° C, 101.3 kPa and wet gas

The requirement to comply with the emission limit by:

particulates - § 32. 4 Ministry of Environment Decree no. 410/2012 Coll.

TOC - § 29. 2 Ministry of Environment Decree no. 410/2012 Coll.



On June 25 – 27, 2013 there was carried out the authorized periodical measurement of emissions to verify compliance with the set emission limits on some exhausts in object SO 200 Body Shop and SO 400 Assembly Shop. The measurement confirmed that the emission limits were complied with.

Exhaust	Pollutant	Emission limit [mg.m ⁻³]	Average measured value [mg.m ⁻³]	Result
SO 200 Body Shop				
V1	particulates	150	1	COMPLIANCE
	2. group 3. subgroup	5	<1	COMPLIANCE
	5. group 1. subgroup	0,1	<0,1	COMPLIANCE
	HF	5	<1	COMPLIANCE
V2	particulates	150	1	COMPLIANCE
	2. group 3. subgroup	5	<1	COMPLIANCE
	5. group 1. subgroup	0,1	<0,1	COMPLIANCE
	HF	5	<1	COMPLIANCE
V3	particulates	150	1	COMPLIANCE
	2. group 3. subgroup	5	<1	COMPLIANCE
	5. group 1. subgroup	0,1	<0,1	COMPLIANCE
	HF	5	<1	COMPLIANCE
V4	particulates	150	1	COMPLIANCE
	2. group 3. subgroup	5	<1	COMPLIANCE
	5. group 1. subgroup	0,1	<0,1	COMPLIANCE
	HF	5	<1	COMPLIANCE



V5	particulates	150	1	COMPLIANCE
	2. group 3. subgroup	5	<1	COMPLIANCE
	5. group 1. subgroup	0,1	<0,1	COMPLIANCE
	HF	5	<1	COMPLIANCE
V6	particulates	150	1	COMPLIANCE
	2. group 3. subgroup	5	<1	COMPLIANCE
	5. group 1. subgroup	0,1	<0,1	COMPLIANCE
	HF	5	<1	COMPLIANCE
V7	particulates	150	1	COMPLIANCE
	2. group 3. subgroup	5	<1	COMPLIANCE
	5. group 1. subgroup	0,1	<0,1	COMPLIANCE
	HF	5	<1	COMPLIANCE
SO 400 Assembly shop				
V1	particulates	3	2	COMPLIANCE

Values of mass concentrations in $\text{mg}\cdot\text{m}^{-3}$ are expressed under standard state conditions ($p = 101,325$, $t = 0^\circ\text{C}$) dry gas, the object SO 400 wet gas

Requirements for compliance with the emission limit under § 32. 4 Ministry of Environment Decree no. 410/2012 Coll.



Waste management

Kia Motors Slovakia s.r.o. is generating hazardous and other wastes by car production. Their amount and disposal method in the 2nd quarter 2013 is described in following table.

Wastes	Amount in t	Utilization in %	Disposal in %
Hazardous	1,248.38	13.29	86.71
Others	13,371.34	98.73	1.27
Total	14,619.72	91.53	8.47

Based on the Act No. 119/2010, obliged person – Kia Motors Slovakia s.r.o. ensures collection, recovery and recycling of packaging at its own expense.