1. Case Study:

INVESTIGATIONS ON ENVIRONMENT POLLUTION BY THE BIGGEST POLLUTANTS



Case study 1: POLLUTION

This case study includes available information on conducted investigations into the environment condition in the vicinity of the biggest pollutants. It shows that the Ministry of Tourism and Environment Protection avoided submitting information on particular companies, and that the Public Institution "Center for Ecotoxicological Investigations" - CETI denied having conducted investigations previously submitted to us by the Ministry.

On December 5 2008 MANS asked from the Ministry of Tourism and Environment Protection the latest reports on the state of the environment in the vicinity of the Thermal Power Plant Pljevlja, the brown coal mine Berane and the Coal mine Pljevlja.

Then, on February 15 2008 we asked from the Ministry the latest reports on the state of the environment in the vicinity of Aluminium Plant Podgorica, the Port of Bar, Adriatic Shipyard and Ironworks Nikšić.

Along with the front pages of the reports, the Ministry also submitted pages including conclusions and comments of the obtained results which indicate the degree of pollution; their summary is included in the table below, while complete documents submitted by the Ministry are included in Annex 1.

1.1 Aluminium Plant Podgorica — On April 11 2008 the Ministry submitted 9 reports of CETI from 2007 and one from 2006.

Date of sampling	Type of investigation	Location	Results
23 XI 2007	Emission measurements of alumina quantity on the ventilation outlet of lime silo	Alumina plant	Filter plant retained lime particles with a high efficiency
22 XI 2007	Emission measurements of harmful and hazardous matters in flue gas from the calcination furnace	Calcination furnace	Avearage measured value of dust matter concentration is above the border value of emission, although overhaul was performed immediately before measurements, while carbon-monoxide concentrations are low
18 V 2007	Additional emission measurements of alumina quantity on the silo ventilation outlet	Electrolysis	Dust quantities higher than the presecribed ones are not emitted

Aluminium
Plant
Podgorica

Ironworks

Coal mine
Pljevlja

TPP Pljevlja

Port of Bar

Brown coal mine
"Berane"

Adriatic
shipyard.

24 V 2007	Additional emission measurements of harmful and dangerous matter in waste gas from the rotation furnace	Silumina Plant	Dust matters exceed by 12,5 times the prescribed concentration, although this is a new commissioned fiiter plant
05 XII 2006	Emission measurements of harmful and dangerous matter in waste gas	,,Coarse clinker", Silumina plant	Quantities of dust higher than the prescribed ones are emitted, dust removal device is not sufficiently efficient
09 - 11 V 2007	Additional emission measurements of harmful and dangerous matter in waste gas from five furnaces	Smelting plant	Current solution of waste gas leading off from the viewpoint of atmosphere air quality and in particular of the working environment air is unacceptable , replacement of the system is recommended
24 XII 2007	Imission measurements of floating particles in the air	КАР	Floating particles concentration exceeds the prescribed norms north of the red muck basin in the vicinity of Energy plant
28. XI 2007.	Imission measurements of floating particles in the air	КАР	Floating particles concentration does not exceed the prescribed norms
13 - 20. XI 2007.	Imission measurements of harmful and dangerous matter in flue gas from calcination furnaces	КАР	In all measurement sites the content of HF and particle fluorides as well as the values of polycyclic aromatic hydrocarbon exceeded the prescribed norms while the total value of floating particles only occasionally exceeded the norms prescribed by the law
27. X 2007.	Imission measurements of floating particles in the air	KAP	Do not exceed the prescribed norms

1.2 Ironworks Nikšić - MANS did not obtain an answer from the Ministry referring to pollution by Ironworks, although that request for information was submitted on the same date as the requests referring to pollution by KAP and the Port of Bar, which the Ministry responded to.

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Ironworks

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The Port of Bar

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1.3 Coal mine Pljevlja – the Ministry submitted data on imission measurements of harmful and dangerous matters in the air in the vicinity of the Coal mine Pljevlja from April 2006 done by CETI.

Date of sampling	Type of investigation	Location	Results
From April 16 unitl April 19 2006	Imission measurements of harmful and dangerous matters in the	"Jagnjilo"	In all the measurement sites the content of floating particles exceeds allowed limits from 2.5 times with crushing plant up to 23 times at the pouring over belt.
		"Potrlica"	All the measured values below the prescribed ones except the slightly increased content of ground ozone and methane.
	air	"Borovica"	Increased content of floating particles from 1,3 to 3,5 times on the location of entrance into the mine, as well as somewhat increased methane content in all measurement locations.

1.4 Thermal Power Plant Pljevlja - The Ministry submitted data on imission measurements of harmful and dangerous matters in the air around the Thermal Power Plant "Pljevlja" from June 2005 done by CETI.

Date of sampling	Type of investigation	Results
From June 02 until June 09 2005	Imission measurements of harmful and dangerous matters in the air	In the first 3 days of measuring the mass concentration of floating particles exceeded the norms prescribed by the law although the thermal power plant was at halt. The following four days the content of floating particles did not exceed the norms prescribed by the law in any measurement location. After the thermal power plant started operation the content of all fluorides in all measurement locations exceeded the prescribed border values by 1,2 to 2 times . Mean values of polycyclic aromatic hydrocarbons in the floating particles samples exceed the prescribed norms by 1,7 to 2,3 times.

According to the reports of the CETI submitted by the Ministry, imission measurements of harmful and dangerous matters in the air in the area surrounding Coal mine and the Thermal Power Plant Pljevlja were not performed in the circumstances which would make possible realistic presentation of content values of floating particles in the air. Measurements in the vicinity of the Mine were performed after a longer rainy period which influenced the measured low concentrations of dust and gases, while unfavourable weather conditions (rain and wind of opposite direction in relation to the TPP) influenced the data on pollution in the vicinity of the TPP, Pljevlja".

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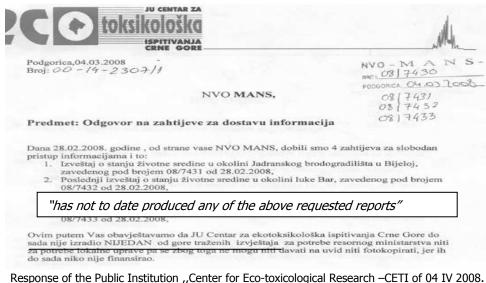
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1.5 Port of Bar — On March 27 2008 the Ministry submitted a response which allows access to data on imission measurements of harmful and dangerous matters in the air in the vicinity of the Port of Bar done by CETI. On that occasion we were submitted a report of the Ecology Inspection on measures undertaken which shows that Ecology Inspection made decisions no 07-02-10 and 07-02-12 by which "Port of Bar" ltd. and "Nimont" ltd it orders execution of measures of air pollution imissions. However, the Ministry submitted only the report referring to "Nimont" ltd, but not for Port of Bar ltd., although the Ministry decision states that access to that information is allowed.

- **1.6. Brown coal mine "Berane"** Instead of investigation of pollution the Ministry submitted a notice of the Ecology Inspection as of December 14 2007.
- **1.7 Adriatic Shipyard** MANS did not obtain a response form the Ministry which refers to pollution by the Adriatic Shipyard, although that request for information was submitted on the same date as the requests referring to pollution by KAP and the Port of Bar which the Ministry responded.

After receiving a response from the Ministry, the following information was asked from the Public Institution "Center for Eco-toxicological Research of Montenegro", reports on the state of the environment in the vicinity of the Thermal Power Plant "Pljevlja", Adriatic Shipyard in Bijela, the Port of Bar and Ironworks Nikšić.

On April 04 2008, Public Institution "Center for Eco-toxicological Research of Montenegro" submitted a response stating that CETI **did not produce any of the required reports** for the needs of the competent ministry or local government.



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