



Current status of mercury in the BiH with regards to legal and institutional framework, production, trade, use, emissions, waste, prevention and control measures and the identification of future challenges

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- Key pieces of legislation relevant to water monitoring are each entities' Law on Water (FBiH 70/06 and RS 50/06 and 92/09).
 - two water agencies for the Sava River and Adriatic Sea Basin are responsible for establishment and management of the water management data processing system
 - the laws oblige all other legal bodies, institutions, companies that use water or are engaged in public water supply (public utility companies) or discharge wastewater, to install devices for measuring and control of water quality and quantity and to carry out measuring and testing, to keep proper records and to submit data to the FBiH PCWAs and RS MoAFW, respectively.

- Regulation on Dangerous and Harmful Substances in Water
- Regulation on Types and Contents of Plans of Protection against Harmful Effects of Waters
- Regulation on Water Classification
 - 0,02 mikro g/l (I and II class) and 1,0 (III and IV)
- Regulation on Watercourse Categorization

- These rulebooks define standards, monitoring mechanisms and guidelines for various spheres of activity, including water protection, protection of aquatic facilities and systems, protection of private and public water wells, water quality monitoring, water supply, and wastewater. They were developed according to EU standards, and are therefore mostly consistent with them.

The most important norms and standards on water resources management according to the laws and sub-laws cited are:

- Rulebook on Drinking Water Safety (0,001 mg/l)
- Rulebook on Sanitary Protection Zones of Drinking Water Sources

- “Rulebook on conditions for waste water discharge into natural waters and public sewerage discharged into surface recipients or in the municipal sewage system **0,01 mg/l – for 5 year! 2012-2017**

priority substances annual conc. for annual conc. Limit for limit for
 Inland surface for other surface surface other surface
 waters water water water

| Br | Supstanca | Identificira na kao prioriteto rizična supstanca | CAS ("Chemical Abstract Service") broj | Srednja godišnja koncentracija za kopnene površinske vode (µg/l) | Srednja godišnja koncentracija za ostale površinske vode (µg/l) | Maksimalno dopuštena koncentracija za kopnene površinske vode (µg/l) | Maksimalno dopuštena koncentracija za ostale površinske vode (µg/l) |
|----|----------------------|--|--|--|---|--|---|
| 21 | Živa i njeni spojevi | + | 7439-97-6 | 0,05 | 0,05 | 0,07 | 0,07 |

| Parametar | Jedinica mjere | Granične vrijednosti emisije industrijskih otpadnih voda koje se ispuštaju u | |
|-------------|----------------|--|----------------------------|
| | | površinska vodna tijela | javni kanalizacioni sistem |
| 32 Živa, Hg | mg/l | 0,01 | 0,01 |

- Environmental law and relevant Rulebooks which are in the force at the moment in Bosnia and Herzegovina do contain neither limit range, nor industry specific limit value for mercury emission. Therefore, there is a single limit value for mercury emission applicable to all industries on the territory of Bosna and Herzegovina.

- No Hg monitoring in river, Groundwater, lakes, etc. Laboratory analysis Hg only if that issued by the environment permits
- A number of companies in BiH (e.g. the Cement Factory Kakanj; the Pharmaceutical Company Bosnalijek SA; the Power Utility Company SA; and the Power Utility Company HZ HB) monitor their discharges.

- soil monitoring does not exist in the country. Efforts are limited to ad hoc observations on the scope of projects, soil quality evaluations, studies and other activities performed by such institutions as the Institute for Agropedology in Sarajevo, the Agriculture Institute of Banja Luka and the Agronomy Institute of Mostar. One example includes the inventory of the post-war land resource situation in BiH, implemented under the Food and Agriculture Organization (FAO) project in 2007. Another example is a pilot project being implemented in several RS municipalities by the RS Agriculture Institute, to identify parameters, plots and pollutants for soil monitoring.

- **Air Quality**
- • Rulebook on Air Quality Monitoring, No. 12/05
- • Rule Book on Limit Values of Air Quality, No. 12/05
- **Waste**
- **Water Law**, No. 70/06
- • Government Regulation on Dangerous and hazardous Substances in Water, n.a.
- • Rulebook on limit values of dangerous and hazardous substances for waters discharged from the public sewage system into the natural recipient after their sewage system treatment, n.a.

Hg in the Air

- **Network of air-quality monitoring stations doesn't measure Hg**

- The Law on Waste Management specifies that the landfill permit shall state the type of landfill concerned (municipal or hazardous) and a list of the types and quantity of waste to be accepted.
- Majority of existing dumpsites, as well as newly constructed regional landfills, are receiving a variety of types of waste, not limited to municipal waste, including hazardous household waste, medical, animal, and industrial waste.

- Specific by-laws and regulations on the handling of hazardous waste, except those for the transboundary movement of hazardous waste, do not yet exist, and there are no regulations or by-laws on handling and treatment of E-waste. According to the sanitary landfill operators, such waste is not accepted, and only a certain number of computer parts are recycled by the industrial waste recycling companies

- In BiH, there is no separate collection system for hazardous materials, i.e. batteries, mercury, etc. and everything ends up in landfills or dumpsites. There are 25 registered municipal landfills in RS and 50 in FBiH. Only a few landfills, i.e. in FBiH, Uborak in Mostar, Tešanj, Smiljevići in Sarajevo, and Mošćanica in Zenica, and in RS, Bosanska Lupa, Bijeljina and Banja Luka, are categorized as sanitary or, at least, controlled landfills. According to the Law on Waste Management, it was decided that municipal landfills should all be closed by 2008, and only sanitary regional landfills would be used. However, according to government sources, the time limit proposed has been postponed until 2012.

- Countrywide in BiH, 10-15 per cent of illegal dumpsites have recently been closed, although there are estimates of 1,100 dumpsites still in use. These figures are often indicated in government documents. There is no inventory of illegal dumpsites, but according to the FBiH State of the Environment report, there are almost 2,000 “inventoried illegal” landfills in the entity. It is forbidden to dispose of hazardous industrial materials in landfills (Law on Waste Management), however in practice this is not strictly followed. Furthermore, hazardous waste from households, such as mercury and batteries, is not separately collected and treated and thus ends up in dumpsites. A number of such dumpsites are located close to riverbanks. This, combined with recent small-scale flooding in mountainous areas, caused the blossoming of the so-called “Balkan flowers” - used plastic bags and PET bottles hanging from trees and floating down rivers in beautiful mountain regions.

- Under the 2000 Strategy for Waste Management in BiH, it was decided to construct 16 regional landfills. It was also decided that open municipal landfills would be closed by 1 January 2008, which has now
- been extended to 2010, as all waste would have to be transported to the new regional sanitary landfills. Some of the regional landfills are cross-entity ones, i.e. the Moscanica landfill in Zenica in FBiH is used by both FBiH and RS municipalities.
- With the World Bank loan, the rehabilitation and construction of six regional landfills started (phase 1, June 2002 – June 2010, US\$ 26 million) in Sarajevo, Zenica, Tuzla, Bihać, Banja Luka, and Bijeljina. However, no consensus on selecting the locations of the Tuzla and Bihać landfills was reached during the period, so these two projects are on hold.

- Both FBiH and RS have a law on waste management (OG FBiH No. 33/03, OG RS No. 53/2 and amendment No. 65/08 respectively) and the two laws are harmonized.
- The Decrees on Health-Care Waste (OG FBiH No. 77/08, OG RS No. 9/06) obliged health-care facilities to develop waste management plans for segregation of infectious waste and safe storage in containers, and for transporting it for final treatment and disposal by the licensed institutions.

- *Republika Sprska*
- • Law on environmental protection, No. 53/02, amended 109/05, consolidated text 28/07
- • Law on Waters, No. 50/06
- • Law on Waste Management, No. 53/02, amended 65/08
- • Categories of waste, characteristics of HW, activities of recovery components and disposal rulebook, No. 39/05
- • Hazardous wastes shipments rulebook, No. 86/05
- Impact Statement, No. 118/05
- • Rulebook on Air Quality Monitoring, No. 39/05
- • Rulebook on Limit values of air quality, No. 39/05
- • Regulation of Emission Limit Values into Air from Combustion Plants, No. 39/05
- • Rulebook on monitoring of Emissions of pollutants into the air, No. 39/05
- • killing of wild animals, No. 85/05
- • Law on fertilizers and soil enriching means, No. 35/04

- **Generation of waste from production activities, 2008**

- **Sectors** **Total** **Hazardous**

| | | |
|---------------------------------------|------------------|---------------|
| Total | 9,533,786 | 91,788 |
| Mining and quarrying | 5,612,627 | 39,905 |
| Manufacturing | 3,563,358 | 51,324 |
| Electricity, gas, water supply | 357,801 | 560 |

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- F BiH estimates that only 10 per cent or less of the total volume of industrial waste is used as secondary raw material, e.g. using part of the slag and ash from thermal power plants for construction materials. Currently, between 150,000 and 200,000 tons of slag and ash are used in the cement industry.

- Rudnik Olova i Cinka Sase AD Srebrenica is a leading Bosnian metal ore mining company, based in Srebrenica, Bosnia's Serb Republic. It specialises in lead, zinc and silver mining and related activities.
- **in bankruptcy proceedings**

....questionnaire responses from MEDPOL Focal Points
(in grey, values that disagree with proposed ELV)

CHEMICAL INDUSTRY (USERS)

- 1) Use of mercury catalysts in the manufacture of polyurethane elastomers
- 2) Use of mercury intermediates in the pharmaceutical industry

BATTERIES INDUSTRY

- 1) Manufacture of batteries containing mercury :
 - Procijenjena količina otpadnih baterija i akumulatora koja se generira na području BiH iznosi 6.000-7.000 t/god,
 - od čega cca 4.000 t/god nastaje u FBiH. Poduzeće za proizvodnju akumulatora, olovnih legura, opreme i trgovinu
 - "Tesla" d.d. Brčko ima kapacitet reciklaže 30.000 t otpadnih baterija i akumulatora godišnje i trenutno je jedino poduzeće u BiH koje se bavi ovom vrstom aktivnosti. Poduzeće ima pogon topionice olova sa suvremenom opremom za reciklažu starih akumulatora i baterija, te posjeduje okolišnu dozvolu. Dakle, već sada postoji kapacitet za zbrinjavanje ove vrste otpada unutar BiH.

- Tvrtke u FBiH koje se bave zbrinjavanjem i izvozom opasnog otpada prema odredbama Baselske Konvencije
 - “Tuzlamet”, d.o.o. Tuzla
- Ostaci od reakcija destilacije, otpadna živa, fluorescentne sijalice, elektronički otpad,
- otpadna ulja, deterdženti, razrjeđivači, akumulatori, itd.



- BiH has adopted a set of by-laws and developed an institutional framework to facilitate implementation of the Convention. The country has also started to work on the import response procedures based on article 10 of the Convention that sets out the obligations of parties with respect to the future import of chemicals listed in annex III of the Convention and subject to the prior informed consent (PIC) procedure. The work is being done in cooperation with both entities.
- The country needs to develop greater capacity to strengthen the integration of chemicals management into national development and planning processes. To strengthen a level of awareness and understanding on chemicals and pesticides management, there is a need to conduct capacity-building activities among different stakeholders.

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