

Improvement of National Register of Pollution Sources in Republic of Serbia

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National Register of Pollution Sources

National Register of Pollution Sources in Republic of Serbia is a set of systematic information and data on environmental pollution sources.

This is a register of all human activities that may have a negative impact on the quality of the environment in Serbia.

National PRTR register is an information subsystem of the Environmental Information System of the Republic of Serbia, which is managed by the Environmental Protection Agency in accordance with the Law on Ministries and the Law on Environmental Protection.

The main function of this register is to collect and process data and to manage and update a number of databases related to industrial and communal pollution.

Improvements of NRPS in 2023

New information system for NRPS

Old system

Limitations

- Microsoft Silverlight
- Internet explorer

New system

No limitations

- ORACLE platform
- Works under all browsers

Improvements of NRPS in 2023

New reporting system for pollutants emissions into water and air

It was determined that companies that do not have the necessary human capacities in environmental protection make mistakes when determining the material balance of polluting substances.

The agency has developed a new set of forms for air and water emissions where companies are obliged to enter data on measured values into the NRPS information system. The system recalculates the average annual values and creates a material balance based on them.

By implementing this system, database administrators only need to verify input data. Validation of the calculated values is not required.

Improvements of NRPS in 2023

New calculation rules

Two new methodologies

- Calculating the MSW total quantity and the recycling rate in the Republic of Serbia based on field measurements,
- Calculation of municipal and packaging waste indicators according to the Eurostat format.

| WASTE INDICATORS | | | | | |
|--|-------|-------|-------|-------|-------|
| Indicator/Year | 2018 | 2019 | 2020 | 2021 | 2022 |
| Total generated MSW [mil. t] | 2,80 | 2,83 | 2,95 | 3,02 | 3,18 |
| Total Landfilled MSW [mil. t] | 2,22 | 2,24 | 2,34 | 2,36 | 2,59 |
| Total Sanitary Landfilled MSW [mil. t] | 0,44 | 0,50 | 0,56 | 0,85 | 1,29 |
| Total Unsanitary Landfilled MSW [mil. t] | 1,78 | 1,74 | 1,78 | 1,51 | 1,16 |
| Share Unsanitary of Generated MSW [%] | 63,68 | 61,48 | 60,34 | 50,00 | 36,48 |
| Share sanitary of landfilled | 19,82 | 22,32 | 23,93 | 36,02 | 49,81 |
| Share Unsanitary of Landfilled [%] | 80,18 | 77,68 | 76,07 | 63,98 | 50,19 |
| Share Landfilled of Generated MSW [%] | 79,42 | 79,15 | 79,32 | 78,15 | 81,45 |
| Inhabitants having access to sanitary landfills [%] | 14,00 | 17,00 | 17,00 | 49,00 | 49,00 |
| Landfilled biodegradable MSW [mil. t] | 1,35 | 1,36 | 1,42 | 1,43 | 1,90 |
| Municipal bio-waste generated [mil. t] | 1,12 | 1,13 | 1,18 | 1,19 | 1,23 |
| Recycling rate of bio-waste [kg/inh] | 1 | 1 | 2 | 2 | 1 |
| Share biodegradable MSW landfilled of produced in 2008 [%] | 84,04 | 84,79 | 88,49 | 89,04 | 92,86 |
| Coverage of MSW collection system [%] | 87 | 86 | 86 | 88 | 87 |
| Share of municipalities with separate waste collection [%] | - | 44,10 | 36,80 | 41,40 | - |
| Recycling (RCY), [mil. t] | 0,42 | 0,43 | 0,46 | 0,47 | 0,56 |
| Recycling rate, [%] | 15,03 | 15,19 | 15,59 | 15,56 | 17,61 |
| Total packaging waste generated [mil. t] | 0,36 | 0,37 | 0,36 | 0,39 | 0,40 |
| Packaging waste recovery [mil. t] | 0,21 | 0,22 | 0,26 | 0,24 | 0,25 |
| Packaging waste recycling [mil. t] | 0,19 | 0,20 | 0,16 | 0,21 | 0,23 |
| Packaging recovery rate [%] | 58,33 | 59,46 | 72,22 | 61,54 | 62,50 |
| Packaging recycling rate [%] | 52,78 | 54,05 | 44,44 | 53,85 | 57,50 |
| Total amount of packaging put on the market | 0,36 | 0,37 | 0,36 | 0,39 | 0,40 |
| Pckaging waste recovery [mil. t] | 0,20 | 0,23 | 0,23 | 0,25 | 0,26 |
| Packaging waste recycling [mil. t] | 0,19 | 0,22 | 0,22 | 0,24 | 0,24 |
| Packaging recovery rate [%] | 55,56 | 62,16 | 63,89 | 64,10 | 65,00 |
| Packaging recycling rate [%] | 52,78 | 59,46 | 61,11 | 61,54 | 60,00 |
| Non-sanitary landfills (SEPA) | 123 | 137 | 138 | 136 | 134 |
| Registered dumpsites (SEPA) | 2170 | 2305 | 3139 | 3059 | 2689 |
| Total non-sanitary landfills and dumps (SEPA) | 2293 | 2442 | 3277 | 3195 | 2823 |

Improvements of NRPS in 2023

New reporting system for VOC solvents directive

Directive 2004/42/EC aims to limit the emissions of substances which promote the forming of ground-level ozone.

The image displays two screenshots of the 'REGISTRI IZVORA ZAGAĐIVANJA' (Registers of Pollution Sources) web application, specifically the 'VOC consumption (Form VOC1)' page. The left screenshot shows the main form with the following fields:

- Reporting Year:** A dropdown menu set to '2022'.
- Company, Facility and VOC Activity:** Three text input fields labeled 'Company*', 'Facility*', and 'VOC Activity*', each followed by a search icon.

The right screenshot shows the same main form with a 'VOC consumption per activity' dialog box open. The dialog box contains the following fields:

- VOC consumption:**
 - Type of use* (dropdown menu)
 - Name of solvent* (text input)
 - Producer (text input)
 - VOC with hazard statements H340, H350, H350I, H360D or H360F* (dropdown menu)
 - Halogenated VOCs with H341 or H351* (dropdown menu)
 - VOC content in the solvent (%)* (text input)
 - Procured solvent in the reporting year (kg)* (text input)
 - Quantity of solvent in stock on the date 1. January (kg)* (text input)
 - Quantity of solvent in stock on the date 31. December (kg)* (text input)
 - Total consumed of solvent (kg) (text input)
 - Total of VOC content (kg) (text input)

Both screenshots include a navigation menu at the top with options: Home, VOC consumption (Form VOC1), Add, Edit, Delete, Lock, View, Export Data, Import, Help, Duplicate, History, Batch. The bottom of the interface features 'Previous' and 'Next' buttons, and a 'Save' button.

Planned improvements of NRPS in 2024 - 2025

New reporting system for waste movement documents according WFD article 35. para 4.

Member States shall set up an electronic registry or coordinated registries to record the data on hazardous waste referred to in paragraph 1 covering the entire geographical territory of the Member State concerned.

Member States may establish such registries for other waste streams, in particular for those waste streams for which targets are set in legislative acts of the Union.

Member States shall use the data on waste reported by industrial operators in the E-PRTR Register set up under Regulation (EC) No 166/2006.

Planned improvements of NRPS in 2024 - 2025

New reporting system for waste movement documents according WFD article 35. para 4.

Existing system

- Developed in 2010.
- 6 paper copies for every hazardous waste movement and 4 copies for non-hazardous waste movement.
- 200.000 waste movement documents in 2022.
- Around 1.2 million paper copies per year, 500 paper boxes.



Planned improvements of NRPS in 2024 - 2025

New reporting system for waste movement documents according WFD article 35. para 4.

New system

- Algorithm is developed.
- Strictly electronic document system. No paper.
- Database in Agency.
- Expecting around 4 to 4.5 hundred thousand documents.
- Analytical reports for every waste and every company.
- Revise legal requirements



Planned improvements of NRPS in 2024 - 2025

New reporting system for preparing for re-use and the recycling of waste materials

MS shall take measures to prevent waste generation. encourage the re-use of products and the setting up of systems promoting repair and re-use activities

Member States shall take measures to encourage the increase in the share of reusable materials.

- Establishing necessary legal acts
- Establishing reporting system

Planned improvements of NRPS in 2024 -2025

New reporting system for VOC Petrol directive

This Directive, which aims at the control of volatile organic compound (VOC) emissions resulting from the storage of petrol and its distribution, shall apply to the operations, installations, vehicles and vessels used for storage, loading and transport of petrol from one terminal to another or from a terminal to a service station.

Existing system

Excel files

New system

IS NRPS

Planned improvements of NRPS in 2024 -2025

Revision of submitted data during previous 3 - 5 years

Emission to air

Emission to water

Waste

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