

PRTR Guidelines Implementation Guide



Purpose of the Implementation Guide

Follow-up to the Regional meeting on PRTR and pollution indicators - Ankara (Turkey), 16 - 17 June 2014 (point 7 of the draft meeting report)



Complementary document to the Regional PRTR Guidelines
UNEP DEPI (MED WG399.4)

Activities



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Pollutants



Draft law (to be followed)

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Aiming at:

To assist operators/authorities to define:

- reporting procedures;
- the data to be reported;
- release determination, analytical methods and sampling methodologies;
- coding of activities



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Operators/Authorities

Operators:

to collect, evaluate and report all pollutants releases into the environment by completing the “reporting format”

Authorities:

to tackle the reporting requirements described by the NAP/H2020 indicators by taking into consideration the information provided by the NBBs



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Who has to report?

The activities are grouped in 9 **activity sectors (incl. production thresholds)**:

- Energy;
- Production and processing of metals;
- Mineral industry;
- Chemical industry;
- Waste and waste water management;
- Paper and wood production and processing;
- Intensive livestock production and aquaculture;
- Animal and vegetable products from the food and beverage sector;
- Other activities (e.g. tanning, surface treatment etc.)



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That means:

- **Integrated facilities** consisting of more than 1 installation have to report separately their releases and off-site transfers;
- **The economic activity** of the facility is the main activity (in cases of more than 1 activities installed in the facility)

chemical industry + wastewater treatment plant + energy production facility



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Pollutants (example)

No	CAS number	Pollutant	Threshold for releases		
			to air kg/year	to water kg/year	to land kg/year
1	74-82-8	Methane (CH ₄)	100 000	—	—
2	630-08-0	Carbon monoxide (CO)	500 000	—	—
3	124-38-9	Carbon dioxide (CO ₂)	100 million	—	—
22		Nickel and compounds (as Ni) (8)	50	20	20
23		Lead and compounds (as Pb) (8)	200	20	20
24		Zinc and compounds (as Zn) (8)	200	100	100



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Example of reporting

Releases		Quantity	M/C/E	Method used		
	to air	kg/year	X	X		
	to water	kg/year	X	X		
	to land	kg/year	X	X		
Off-site transfers of:		Quantity	M/C/E	Method used	Name and address of recoverer/ disposer	Address of actual recovery/disposal site receiving the transfer
Pollutants in wastewater		kg/year	X	x		
Non-hazardous waste	for disposal (D)	t/year	x	x		
	for recovery (R)	t/year	x	x		
Hazardous waste within the country	for disposal (D)	t/year	x	x		
	for recovery (R)	t/year	x	x		
Hazardous waste transboundary	for recovery (R)	t/year	x	x	x	x
	for disposal (D)	t/year	x	x	x	x



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Example of releases to water

Releases to water						
Pollutant			Method		Quantity	
No	CAS Number	Name	M/C/E	Method used	T (total) kg/year	A (accidental) kg/year
63		Brominated diphenylethers (PBDE)	E		25.5	20.0
76		Total organic carbon (TOC)	M	EN 1484:1997	304,000	-



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Data

Measured (M)



big facilities

Calculated (C)



emission factors

Estimated (E)



mass balance

Reference to the M/C/E methods



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PRTR - NBB

PRTR: focusing on bigger point sources and on a more detailed inventory of pollutants (by including off-site transfers)

NBB: some main pollutants for the assessment of water pollution i.e. BOD, suspended solids (SS)



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PRTR/NBB Comparison

Issue	NBB	PRTR
Geographical scope	Administrative regions located in drainage basins that outflow into the Mediterranean.	All regions and river basin districts
Source type	Point sources (industry and urban centres).	Industrial facilities and diffuse sources
Scope of point sources	All point sources irrespective of their capacity.	Only if the facility exceeds thresholds:
Media	Water and air	Amounts of pollutant releases to air, water and land as well as off-site transfers of waste and of pollutants in waste water
Emission scope	Direct emissions to drainage basins or into the sea.	Direct emissions and indirect emissions (going to an external treatment plant).
Sector categories	Sectors according to LBS Protocol (30 categories)	9 sector categories



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PRTR or NBB?

PRTR is more comprehensive and detailed



It encompasses NBB features

It needs involvement of industry (**not desk studies by consultants**) → measurements!



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NAP/H2020 indicators

No.	Title of indicator	Sub-indicators	Type
IND 6.1	Release of nutrients from industrial sectors	6.1.1) Total BOD 6.1.2) Total Nitrogen 6.1.3) Total Phosphorus	Pressure indicator
IND 6.2	Release of toxic substances from industrial sectors	6.2.1) Total heavy metals 6.2.2) Furans and dioxins 6.2.3) Polycyclic aromatic hydrocarbons (PAH) 6.2.4) Volatile organic compounds (VOC)	Pressure indicator
IND 6.3	Generation of hazardous wastes from industrial sectors	6.3.1) Total yearly amount of generated hazardous industrial wastes 6.3.2) Total yearly amount of hazardous industrial waste that is disposed in environmentally sound manner. 6.3.3) Total yearly amount of hazardous industrial waste that is stockpiled. 6.3.4) Total yearly amount of hazardous industrial waste subject to transboundary movement.	Pressure indicator
IND 6.4	Measures or initiatives taken	6.4.1) Number of implemented measures (legal and administrative) aiming at reducing toxic releases and use of dangerous chemicals or encouraging the use of cleaner technology/best available technology 6.4.2) Number of implemented economic instruments/initiatives aiming at reducing toxic releases and use of dangerous chemicals, or encouraging the use of cleaner technology/ best available technology 6.4.3) Number of measures taken by industries/waste generators aiming at reducing toxic releases, managing stockpiles of chemicals or remediating contaminated sites 6.4.4) Number of controls and inspections carried out by environmental authorities of industries generating hazardous wastes or discharging toxic chemicals	Response indicator



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Authorities reporting (Indicators 6.1, 6.2, 6.3)

- **Define** the river basin districts which directly/indirectly affect the Mediterranean environment;
- **Get the cumulative loads** of the water pollutants referring to indicators 6.1 and 6.2;
- **Identify** the areas from where air emissions are likely to influence the Mediterranean environment. In doing so, geographical and climatic considerations have to be considered i.e. the wind directions/intensities and the proximity to the Mediterranean coast;
- **Map** all point sources within the river basin for which PRTR data exists;
- **Get the cumulative loads** of the relevant air emissions referring to indicator 6.2;
- **Group** all relevant loads as required by the indicator 6.3 (hazardous/non-hazardous waste).



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Authorities reporting (Indicator 6.4)

Indicator 6.4, a response indicator, is focusing on remediation/mitigation measures of technical (treatment plants), regulatory/administrative (permitting/inspection) and economic (incentives) nature.

- **Review/evaluate** issued permits for “strategic” facilities i.e. for those which are considered, according to the PRTR data, as major polluters
- **Assess** the already performed inspection reports by listing any interventions implied by the relevant authorities
- **Report** the administrative/technical measures taken by these facilities to improve their environmental performance i.e. revised permits with stricter emission limit values, treatment plants, recycling/prevention measures etc.



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Gap analysis: What is required?

1. Infra-structure (computers/servers)
2. Manpower (who is collecting/evaluating the data?) → **Industry**
3. Data acquisition (measurements, calculations, assessments?)
4. National emission factors: **to be based on measurements**



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Thank you!



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