

## Waste Classification Schemes

Country: BELARUS

Reporting Year: 2011

Waste Class Matrix: **IAEA Def.**

This country does use the IAEA Scheme: Yes

Description: The Agency's standard matrix

Waste Class Name	Distribution %			
	VLLW	LLW	ILW	HLW
VLLW	100.0	0.0	0.0	0.0
LLW	0.0	100.0	0.0	0.0
ILW	0.0	0.0	100.0	0.0
HLW	0.0	0.0	0.0	100.0

Comment **# 98: Reason for use of IAEA Def. Class**

The IAEA classification was recognized as the most appropriate for reporting to the NEWMDB from the EKORES site in connection with the below stated motives.

Due to a number of objective and economical reasons management and regulation of radioactive waste in Belarus, except for "Chernobyl waste", has been so far performed in accordance with the regulations of the former USSR:   
 - Basic Sanitary rules for working with radioactive substances and other sources of ionizing radiation (OSP - 72/87);   
 - Basic sanitary rules for the Management of Radioactive Wastes (SPORO -85).   
 The last document embodies a classification for radioactive waste which is based:   
 - on dose rate (when measuring in 10 cm from surface ) for solid waste and   
 - on concentration activity (Bq/l) for liquid waste.

The classification has not found an application in Belarus, where all generated wastes are disposed of at the same facility ("Ekores") in accordance with the acceptance criteria developed for this facility. At the same time the IAEA definitions have been widely used in practice of radioactive waste management despite they have not been adopted officially.

The Draft Strategy for the radioactive waste management in Belarus suggests for consideration a new national classification system, which has been developed in accordance with the recommendation of the IAEA TECDOC-1067 "Organization and implementation of national regulatory infrastructure governing protection against ionizing radiation and the safety of radiation sources, 1999". The proposed waste classes are quite the same as those proposed in the IAEA Safety Guide 111-G-1.1

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Waste Class Matrix: **ChernDW**

Yes

Description:

DWT include low level waste resulting from clean up activity in the territory affected by the Chernobyl Accident

DWI include low level waste resulting from decontamination of industrial (ventilation) equipment at Gomel enterprises.

Waste Class Name	Distribution %			
	VLLW	LLW	ILW	HLW
DWT	0.0	100.0	0.0	0.0
DWI	0.0	100.0	0.0	0.0

Comment **# 99: Origin of CHERW class of waste**

As a result of the Chernobyl Accident a total of 46 450 km<sup>2</sup> (23 % of the country) of Belarus territory was subjected to radioactive contamination with Cs137 content in soil over 37 kBq/m<sup>2</sup>. Decontamination and remediation activities in the affected areas just after the accident resulted in thousands of tons of low-level and very low level waste. Currently several tens of tons of such waste are formed annually in the course of clean-up activities in socially important locations and from decontamination of industrial equipment in the affected territory. The levels of radioactivity in part of the wastes are lower than those within IAEA LLW class, and are often in a range of only two orders of magnitude. However, the amounts of the waste are enormous and resulting chronic exposure can be a factor for a great number of people.

The grouping of such waste under a separate category (ChernDW) has been caused by its peculiarities and special requirements needed for their management, quite different from those for existing waste.

The special regulation in force 'Provisional sanitary rules for the management of decontamination waste of the Chernobyl origin' (SPOOD-98) define this class of waste as substances which are formed as a result of work to eliminate the consequences of the Chernobyl accident with a view to bring the state of environment in industrial and civil facilities in the contaminated areas to an acceptable radioecological level and which contain more than 0.96 kBq/kg of Cs-137 (for DWT). DW are divided into two different categories, each requiring a separate approach towards selection of processing technologies:

DWT are solid ChernDW, arisen in the course of clean-up activities in the affected areas (removed soil, roofing slate, other building materials)

DWI are solid and liquid ChernDW, generated during clean-up of equipment contaminated owing to intensive work of ventilation systems at Gomel enterprises in the period after the Chernobyl accident.

Waste Class Matrix: **InstWaste**

Yes

Description:

"Institutional waste" consists of waste generated in industry, science, medicine and another spheres of national economy.

Waste Class Name	Distribution %			
	VLLW	LLW	ILW	HLW
Low active	0.0	100.0	0.0	0.0
Medium active	0.0	0.0	100.0	0.0
High active	0.0	0.0	0.0	100.0

Comment **# 26586: Institutional waste**

Classification for "Institutional waste" was established by Sanitary Regulations of Radioactive Waste Management (SPORO-2005) 2.6.6.11-7-2005

**Definition of «unprocessed waste» and «processed waste»:**

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This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
Unprocessed means:	x	x		
Processed means:			x	x