

Report 1: National waste class definitions versus the IAEA's proposed waste classes

IAEA Waste Class	Country	National Definitions (extracted verbatim from the WMDB records)
L/ILW-SL	ALBANIA	The act and regulation contain the definition for radioactive waste. Classification will be done in a special regulation for radioactive waste management.
L/ILW-SL	ARGENTINA	<p>The Argentine criteria classifies the wastes by its required isolation period, based on its activity and half life. Three major waste families are identified.</p> <p>a) Low level waste: wastes that need an isolation period around 30-50 years.</p> <p>b) Intermediate level waste: wastes that need an isolation period of more than 50 years and less than 300 years.</p> <p>c) High level waste: Spent fuels and those wastes that come from the spent fuel reprocessing (fission products and TRU).</p>
L/ILW-SL	AUSTRALIA	<p>The Code of Practice for the Near-Surface Disposal of Radioactive Waste in Australia categorizes wastes according to their suitability for near-surface disposal. There are three categories: Category A, Category B and Category C.</p> <p>Category A: Covers solid waste with radioactive constituents, mainly beta or gamma emitting radionuclides, whose half-lives are considerably shorter than the institutional control period. Long-lived alpha-emitting radionuclides should only be present at very low concentrations.</p> <p>Category B: Covers solid waste and shielded sources with considerably higher activities of beta- or gamma-emitting radionuclides than Category A waste. Long-lived alpha-emitting radionuclides should be at relatively low levels.</p> <p>Category C: Covers solid waste containing alpha-, beta- or gamma-emitting radionuclides with activity concentrations similar to those for Category B. However, this waste typically will comprise bulk materials.</p> <p>Quantitative criteria in terms of activity concentration limits for specific radionuclides shall be derived for each category of radioactive waste for each facility in accordance with the principles outlined in Section 2.6.3 of the Code of Practice for the Near-Surface Disposal of Radioactive Waste in Australia (1992).</p>
L/ILW-SL	AUSTRALIA	The Regulations under the Radiation Safety Act do not define LLW.
L/ILW-SL	BELARUS	<p>Note: The LILW-SL record in the waste management database is for both LILW-SL and LILW-LL waste from Belarus.</p> <p>According to SPORO-85 radioactive wastes include solutions, materials, biological substances in</p>

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		<p>which concentration of radionuclides is higher than exemption levels given in SPORO-85.</p> <p>These levels for solid waste are :</p> <p style="padding-left: 20px;">beta-emitters - 74 KBq/kg alpha-emitters - 7,4 KBq/kg gamma-emitters - 10E-7 g-ekv.Ra/kg;</p> <p>The exemption levels for liquid waste are permissible concentrations of radionuclides for drinking water, given in the national standards on radiation safety.</p> <p>Depending on the level of activity liquid wastes are subdivided into low activity waste, intermediate activity waste and high activity waste. Spent sealed sources are included in radioactive waste.</p>
L/ILW-SL	BELGIUM	The regulations do not contain such a definition/classification.
L/ILW-SL	BRAZIL	<p>According to CNEN-NE-6.06, Low and Intermediate Level Radioactive Wastes are defined as "radioactive wastes with short half-life, i.e. with a radioactivity content that will decay to acceptable levels in a period of time up to 300 years, with (i) predominantly beta and gamma emitters and insignificant alpha emitters (ii) low and/or average radiotoxicity and (iii) low or insignificant heat generation rates".</p> <p>According to CNEN-NE-6.05, the classification of low level wastes falls into three categories, as follows:</p> <ul style="list-style-type: none"> - Solid Low Level Waste: exposure rate at the surface less than or equal to 200 mR/h (50 mC/(kg.h)). - Liquid Low Level Waste: concentration less than or equal to 1 Ci/m³ (3.7E10 Bq/m³). - Gaseous Low Level Waste: concentration less than or equal to 1.0E-10 Ci/m³ (3.7E10 Bq/m³). <p>According to CNEN IT 01/91, Low Level and Intermediate Level Wastes are defined as "wastes containing radionuclides with short half-lives, i.e. up to around 30 years, and with: (i) predominantly beta and gamma emitters and insignificant alpha emitters, (ii) low and/or average radiotoxicity, and (iii) low or insignificant heat generation rates".</p>
L/ILW-SL	BULGARIA	<p>The definition of "radioactive waste" is set by the AUAEPP, i.e., radioactive substances, produced as a result of the treatment and use of radioactive materials, as well as by other ionizing sources or their elements, which further use is not foreseen and which will require special measures on long-term storage and isolation from the biosphere, envisaged in the nuclear safety and radiation protection standards and rules.</p> <p>According to Regulation No. 7 there is the following RW classification of liquid waste follows</p>

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		<p>according to their specific activity: LLW - up to 3.7x10E5 Bq/l; ILW - from 3.7x10E5 Bq/l to 3.7x10E10 Bq/l and HLW - over 3.7x10E10 Bq/l.</p> <p>Solid waste: gamma dose equiv. 0.1m from surface beta spec. act. alpha spec. act. mSv/h Bq/kg Bq/kg</p> <p>=====</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">I</td> <td style="width: 30%;">1x10E-3 - 3x10E-1</td> <td style="width: 30%;">7x10E4 - 3.7x10E6</td> <td style="width: 30%;">7x10E3 - 3.7x10E5</td> <td style="width: 15%;">(LLW)</td> </tr> <tr> <td>II</td> <td>3x10E-1 - 10</td> <td>3.7x10E6 - 3.7x10E9</td> <td>3.7x10E5 - 3.7x10E8</td> <td>(ILW)</td> </tr> <tr> <td>III</td> <td>over 10</td> <td>over 3.7x10E9</td> <td>over 3.7x10E8</td> <td>(HLW)</td> </tr> </table>	I	1x10E-3 - 3x10E-1	7x10E4 - 3.7x10E6	7x10E3 - 3.7x10E5	(LLW)	II	3x10E-1 - 10	3.7x10E6 - 3.7x10E9	3.7x10E5 - 3.7x10E8	(ILW)	III	over 10	over 3.7x10E9	over 3.7x10E8	(HLW)
I	1x10E-3 - 3x10E-1	7x10E4 - 3.7x10E6	7x10E3 - 3.7x10E5	(LLW)													
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III	over 10	over 3.7x10E9	over 3.7x10E8	(HLW)													
L/ILW-SL	CANADA	<p>The regulations do not provide a definition of L/ILW. However, the federal policy on LLW announced in April, 1986, does provide a definition of LLW:</p> <p>"LLW are all forms of radioactive wastes except those deriving from uranium or thorium mining and milling operations and from irradiated nuclear fuel".</p> <p>In Canada, ILW is also included within the LLW category. The LLW volumes reported below do not include about 1.5 million cu.m. of historic waste accumulated thus far.</p>															
L/ILW-SL	CHILE	<p>In general, radioactive material with activity of or greater than 74 Bq/g and have no future use are considered as radioactive waste.</p> <p>For this item, (L/ILW) a practice classification has been made to handle them:</p> <ul style="list-style-type: none"> - Very short-lived waste : waste contaminated with radionuclides which have a half-life until 100 days. -Short-lived waste : waste contaminated with radionuclides having a half-life until 30 years; Cs-137 is included. 															
L/ILW-SL	CUBA	<p>The regulations do not include a classification for low and intermediate level waste. However, the national competent authority has established waste categories and limits. Radioactive wastes are classified according to their physical characteristics and the concentration of radioactive materials in them.</p>															
L/ILW-SL	CYPRUS	<p>NONE</p> <p>However, a definition for L/ILW-SL will be contained in the document being drafted.</p>															
L/ILW-SL	CZECH REP.	<p>The Czech Republic does not use an explicit definition for LILW-SL. The criteria for radioactive waste management including classification are approved by Regulatory Authority for every waste stream.</p>															

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L/ILW-SL	DENMARK	Denmark does not have a definition for LILW-SL.
L/ILW-SL	EGYPT	Classifications and definitions of wastes are done in accordance with IAEA definitions and classifications as reported in many IAEA documents e.g. IAEA Safety Series No. 54.
L/ILW-SL	ESTONIA	<p>Definition is given in radiation Protection Act (1997), paragraph 28.</p> <p>Radioactive waste is:</p> <ol style="list-style-type: none"> 1) materials containing radioactive substances or materials contaminated with radioactive substances where the content of radioactive substances exceeds the limits stipulated in paragraph 6 of this Act, and for which is no intent of future use; 2) radioactive substances or radiation devices containing radioactive substances ownership of thereof cannot be established; 3) produced in nuclear facilities radioactive substances or materials contaminated with radioactive substances, and radioactive component parts of decommissioned nuclear facilities. <p>Paragraph 6 in Radiation Protection Act: The Government of the Republic shall establish by ordinance the maximal limits of total amounts of radioactive substances and the maximum limits for specific activity thereof exempted from the requirements of radiation activity licensing. (The limits established are in accordance to the exemption levels in BBS for Radiation Protection, IAEA).</p>
L/ILW-SL	FINLAND	No definition exists for LILW-SL waste.
L/ILW-SL	FRANCE	<p>A general definition is given in FSR 3.2e : waste the activity of which comes mainly from nucleides with short (<5 years) or medium (<31 years) half life and with a very low level of long lived nucleides. Practically the limits are the acceptance criteria for the Centre de l'Aube facility.</p> <p>The limit for long lived alpha emitters is derived from long term safety considerations and is expressed in FSR 1.2 : 370 MBq/ton for the average of the repository, generally less than 3,7 GBq/ton for an individual package with special possibility up to 18,5 GBq/t.</p>
L/ILW-SL	GERMANY	The is no definition for LILW-SL waste in Germany. To fit the data into the format of the WMDB, non-heat generating waste appears under LILW/SL and heat generating appears under HLW and Spent Fuel.
L/ILW-SL	GUATEMALA	Recently, governmental regulation 599-98, for the management of short half-life radioactive waste, was approved.
L/ILW-SL	HUNGARY	<p>Low level less than 5E5 kBq/kg</p> <p>Medium level 5E5 - 5E8 kBq/kg</p>
L/ILW-SL	INDIA	The definition of L/ILW-SL is the same as suggested by International Atomic Energy Agency.
L/ILW-SL	INDONESIA	<p>For liquid waste: LLW = Total activity 10E-6 to 10E-1 Ci/m³</p> <p style="padding-left: 40px;">ILW = Total activity 10E-1 to 10E4 Ci/m³</p> <p style="padding-left: 40px;">HLW = Total activity above 10E4 Ci/m³</p> <p>For solid waste: LLW = radiation field less than 0.2 R/h</p>

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		ILW = radiation field 0.2R/h to 2 R/h HLW = radiation field greater than 2 R/h												
L/ILW-SL	IRAN, ISL. REP	Wastes containing short-lived radionuclides which can be stored for decay and subsequently be discharged as exempted wastes within one year after collection is defined LLW-SL.												
L/ILW-SL	ITALY	According to the TG 26 LLW are defined as: wastes which decay to radioactivity level of about 370 Bq/g within a few centuries.												
L/ILW-SL	KOREA REP.	The current definition defines LILW as the waste from which surface exposure rate is less than 5.16X10 ⁻⁴ Coulomb/kg/hr (2 rad/hr).												
L/ILW-SL	KUWAIT	LILW-SL - the waste remaining from the medical and research use of low activity unsealed radioactive sources.												
L/ILW-SL	LEBANON	THERE IS NO DEFINITION FOR L/ILW-SL TILL NOW.												
L/ILW-SL	LITHUANIA	No												
L/ILW-SL	LUXEMBOURG	The national regulation does not contain a definition or classification for L/ILW-SL.												
L/ILW-SL	MALAYSIA	No												
L/ILW-SL	MEXICO	According to the Norma Oficial Mexicana NOM-004-NUCL-1994, radioactive wastes are defined as low level, intermediate level, high level and spent fuel. Low level wastes have short lived nuclides and small quantities of long lived nuclides.												
L/ILW-SL	NETHERLANDS	Material in gaseous, liquid or solid form containing radioactivity in excess of the relevant exemption or clearance levels for which no further use is foreseen.												
L/ILW-SL	NORWAY	There is no definition for LILW-SL												
L/ILW-SL	PHILIPPINES	The regulation has not yet been established.												
L/ILW-SL	POLAND	Waste containing beta and gamma emitters are qualified as follows: <table style="margin-left: auto; margin-right: auto; border: none;"> <tr> <td></td> <td style="text-align: center;">LLW [ALI/m3]</td> <td style="text-align: center;">ILW [ALI/m3]</td> </tr> <tr> <td>-solid</td> <td style="text-align: center;">1E2 - 1E6</td> <td style="text-align: center;">1E6 - 1E9</td> </tr> <tr> <td>-liquid</td> <td style="text-align: center;">1E-2 - 1E2</td> <td style="text-align: center;">1E2 - 1E5</td> </tr> <tr> <td>-gaseous</td> <td style="text-align: center;">1E-1 - 1E DAC</td> <td style="text-align: center;">1E - 1E6 DAC</td> </tr> </table> ALI - annual limits of intake [Bq] DAC - derived air concentration [Bq/m3]		LLW [ALI/m3]	ILW [ALI/m3]	-solid	1E2 - 1E6	1E6 - 1E9	-liquid	1E-2 - 1E2	1E2 - 1E5	-gaseous	1E-1 - 1E DAC	1E - 1E6 DAC
	LLW [ALI/m3]	ILW [ALI/m3]												
-solid	1E2 - 1E6	1E6 - 1E9												
-liquid	1E-2 - 1E2	1E2 - 1E5												
-gaseous	1E-1 - 1E DAC	1E - 1E6 DAC												
L/ILW-SL	PORTUGAL	Portugal does not have a definition/classification for LILW-SL												
L/ILW-SL	ROMANIA	There are no definitions/classification of L/ILW-SL or L/ILW-LL. The new Norms will provide such definition.												
L/ILW-SL	SLOVAKIA	Radioactive Waste Definition only												
L/ILW-SL	SLOVENIA	Radioactive wastes are classified in the "Regulation on Radioactive Wastes (Off.Gaz.SFRY,40/86)" as follows: Article 2:												

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		<p>Solid radioactive wastes are waste materials with the specific activity greater than 1×10^8 Bq/m³ for beta and gamma emitters, and greater than 1×10^7 Bq/m³ for alpha emitters - or, alternatively with the surface contamination greater than 5,000 Bq/m² for beta/gamma emitters and greater than 500 Bq/m² for alpha emitters.</p> <p>Article 3:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Category</th> <th style="text-align: left;">Specific Activity Bq/m³</th> <th style="text-align: left;">Description</th> </tr> </thead> <tbody> <tr> <td>I-High Level</td> <td>A > 5×10^{14}</td> <td>High beta/gamma, considerable alpha, high radiotoxicity, thermal power (cooling required)</td> </tr> <tr> <td>II-Intermediate level with alpha emitters</td> <td>5×10^{14} > A > 5×10^9</td> <td>Intermediate beta/gamma, considerable alpha, medium radiotoxicity, low thermal power</td> </tr> <tr> <td>II-Intermediate level with beta/low alpha, low power</td> <td>5×10^{14} > A > 5×10^7</td> <td>Intermediate beta/gamma, low or medium radiotox., gamma emitters</td> </tr> <tr> <td>III-Low level with alpha emitters</td> <td>5×10^9 > A</td> <td>Low beta/gamma some alpha, low or med. tox., low power</td> </tr> <tr> <td>III-Low level with beta/gamma emitters</td> <td>5×10^7 > A</td> <td>Low beta/gamma, negligible alpha, low radiotox., negl. thermal power</td> </tr> </tbody> </table>	Category	Specific Activity Bq/m ³	Description	I-High Level	A > 5×10^{14}	High beta/gamma, considerable alpha, high radiotoxicity, thermal power (cooling required)	II-Intermediate level with alpha emitters	5×10^{14} > A > 5×10^9	Intermediate beta/gamma, considerable alpha, medium radiotoxicity, low thermal power	II-Intermediate level with beta/low alpha, low power	5×10^{14} > A > 5×10^7	Intermediate beta/gamma, low or medium radiotox., gamma emitters	III-Low level with alpha emitters	5×10^9 > A	Low beta/gamma some alpha, low or med. tox., low power	III-Low level with beta/gamma emitters	5×10^7 > A	Low beta/gamma, negligible alpha, low radiotox., negl. thermal power
Category	Specific Activity Bq/m ³	Description																		
I-High Level	A > 5×10^{14}	High beta/gamma, considerable alpha, high radiotoxicity, thermal power (cooling required)																		
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II-Intermediate level with beta/low alpha, low power	5×10^{14} > A > 5×10^7	Intermediate beta/gamma, low or medium radiotox., gamma emitters																		
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L/ILW-SL	SOUTH AFRICA	see Regulations section																		
L/ILW-SL	SPAIN	No specific definition for L/ILW-SL exists in the regulation currently in force. As previously mentioned, limits are defined according to the safety objectives stated by regulatory authorities.																		
L/ILW-SL	SWEDEN	There are no legislated waste definitions.																		

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		<p>However, SKB uses the following to define L/ILW-SL</p> <ul style="list-style-type: none"> - heat generation < 2kW/m³ - nuclides dominating the waste have T_{1/2} < 30y
L/ILW-SL	SWITZERLAND	<p>No precise definition</p> <p>L/ILW-SL broadly comprise following waste arisings:</p> <ul style="list-style-type: none"> - Waste from medicine, industry and research - NPP operational waste - NPP decommissioning waste - Low level reprocessing waste
L/ILW-SL	THAILAND	<p>The Draft Ministerial Regulations contain the definition which is in accordance with IAEA RADWASS Publications.</p> <p>Radioactive Waste means rest products from handing, storage or other use of radioactive materials for which no further use is foreseen and any other material classified as radioactive waste by the Thai AEC for peace.</p>
L/ILW-SL	TUNISIA	<p>Category I: low-level waste containing radionuclides with a half life of less than 71 days and with a total activity less than 10 MBq.</p> <p>Category II: low- and intermediate-level waste containing radionuclides with a half life of greater than 71 days and less than or equal to 30 years.</p>
L/ILW-SL	TURKEY	<p>The definition for LLW is contained in the national glossary of nuclear terms issued on 9 September 1991 (based on the IAEA Safety Series No. 76).</p>
L/ILW-SL	UK	<p>The 1995 White Paper on radioactive waste management policy (Cm2919) gives the current UK radioactive waste categorisation. This defines intermediate level waste (ILW) and low level waste (LLW). The radioactivity of LLW does not exceed 4 GBq/t alpha or 12 GBq/t beta/gamma.</p>
L/ILW-SL	UKRAINE	<p>There is no absolutely identical definition.</p> <p>SRRAW-85 defines:</p> <ul style="list-style-type: none"> by specific activity: <ul style="list-style-type: none"> Low Level Liquid RAW - up to 370 kBq/l Intermediate Level Liquid RAW - from 370 kBq/l to 37 GBq/l by dose rate at the 10 sm distance from the surface: <ul style="list-style-type: none"> Solid RAW of I Group - up to 0.3 mZv/h Solid RAW of II Group - from 0.3 to 10 mZv/h <p>The Law of Ukraine "On RAW Management" defines:</p> <p>Short-lived RAW - RAW, which achieves the level of exemption from the control of State Regulatory Body till 300 years.</p>
L/ILW-SL	USA	<p>The USNRC and USDOE use different definitions of waste. Examples of these differences include:</p>

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		<p>- The USNRC has classes of low-level waste (A, B, C, and greater than Class C) but the USDOE does not have classes of low-level waste.</p> <p>- The USDOE does not make a distinction in concentration of alpha emitting transuranic when defining TRU waste. TRU waste is defined as waste with a concentration greater than 100 nanocuries per gram of alpha emitting TRU, while the USNRC has higher concentration limits for Americium-241 (3,500 nanocuries per gram) and Curium-242 (20,000 nanocuries per gram).</p> <p>- The USDOE does not have a Low Level Waste - Long Lived classification. The information provided applies to low-level waste that generally does not qualify for disposal in near-surface land disposal facilities. This material has been generally referred to as special case waste (SCW)</p> <p>The following was received from the USDOE and applies to the USNRC as well ===== LLW is radioactive waste not classified as high-level waste, transuranic waste, spent nuclear fuel, or by-product material as defined in section 11e(2) of the Atomic Energy Act (uranium or thorium tailings and waste). In the U.S., L/ILW-SL would include LLW, as defined above, except for the longer-lived LLW that does not generally qualify for disposal in currently operating near-surface disposal facilities.</p> <p>***** NOTE: Waste volumes provided by USDOE *****</p>
L/ILW-SL	UZBEKISTAN	Uzbekistan does not use the LILW-SL classification.
L/ILW-LL	ARGENTINA	see Waste Definition Section for LILW-SL
L/ILW-LL	AUSTRALIA	<p>The Code of Practice for the Near-Surface Disposal of Radioactive Waste in Australia categorises wastes according to their suitability for near-surface disposal. There are three categories: Category A, Category B and Category C, which are described in the Waste Definition section for LILW-SL waste for the Department of Industry, Science and Resources.</p> <p>Quantitative criteria in terms of activity concentration limits for specific radionuclides shall be derived for each category of radioactive waste for each facility in accordance with the principles outlined in Section 2.6.3 of the Code of Practice for the Near-Surface Disposal of Radioactive Waste in Australia (1992).</p> <p>Waste not meeting these criteria for near-surface disposal is classified as Category S waste. This waste requires deep geological disposal. Because Australia only has a small quantity of Category S waste (long-lived intermediate level waste) the current Government policy is for above ground storage of this material.</p>
L/ILW-LL	BELGIUM	No.

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L/ILW-LL	BULGARIA	see Waste Definition Section for LILW-SL
L/ILW-LL	CANADA	The regulations do not provide a definition of LILW. However, the federal policy on LLW announced in April, 1986, does provide a definition of LLW: "LLW are all forms of radioactive wastes except those deriving from uranium or thorium mining and milling operations and from irradiated nuclear fuel". In Canada, ILW is also included within the LLW category.
L/ILW-LL	CHILE	see Waste Definition Section for LILW-SL
L/ILW-LL	CUBA	The regulations do not include a classification for low and intermediate level waste. However, the national competent authority has established waste categories and limits. Radioactive wastes are classified according to their physical characteristics and the concentration of radioactive materials in them.
L/ILW-LL	CYPRUS	NONE However, a definition will be contained in the document being drafted.
L/ILW-LL	CZECH REP.	The Czech Republic does not use an explicit definition for LILW-LL. The criteria for radioactive waste management including classification are set approved by Regulatory Authority for every waste stream.
L/ILW-LL	DENMARK	Denmark does not have a definition for LILW-LL.
L/ILW-LL	FRANCE	HLW and L/ILW-LL wastes may be defined as waste which cannot be accepted in the Centre de l'Aube facility with regard on specific activity (non compliance with the Centre de l'Aube acceptance criteria). However very little amounts of LLW-LL may be accepted in the Centre de l'Aube within the limits of the radiological capacity of the facility if these wastes comply with its acceptance criteria. For instance the limit for acceptance of long lived alpha emitters at the Centre de l'Aube is expressed in FSR 1.2 : 370 MBq/ton for the average of the repository, generally less than 3,7 GBq/ton for an individual package with special possibility up to 18,5 GBq/t.
L/ILW-LL	GUATEMALA	1. Short lived waste has up to 60 day half-life nuclides 2. Long lived waste has greater than 60 day half-life nuclides
L/ILW-LL	INDIA	The definition of L/ILW-LL is the same as suggested by the IAEA.
L/ILW-LL	INDONESIA	see Waste Definition for LILW-SL
L/ILW-LL	ITALY	According to the TG 26 the ILW-LL are considered as 3rd category waste defined as: -Long lived waste not included in cat. 1 and 2

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		-Waste from the reprocessing of spent fuel and alpha bearing waste from the fuel cycle and R&D activities.
L/ILW-LL	KAZAKHSTAN	The definition that Kazakhstan uses for L/ILW-LL derives from the former USSR and is defined by the following: dose rate of gamma-radiation at a distance of 0.1m from waste surface is 0.3-10000mSv/h; specific beta-activity is 2x10E-6 - 1x10E-1 Ci/kg, specific alpha-activity is 2x10E-7 - 1x10E-2 Ci/kg; half-life time is more than 30 years. Please note, the sharp increase in accumulated LILW-LL (see Projected Volumes, below), is due to the decommissioning of the Aktau Power Plant (2005)
L/ILW-LL	KUWAIT	LILW-LL - the waste remaining from the medical and research use of low activity unsealed radioactive sources.
L/ILW-LL	LEBANON	THERE IS NO DEFINITION FOR L/ILW-LL TILL NOW.
L/ILW-LL	LITHUANIA	No
L/ILW-LL	MALAYSIA	Nil.
L/ILW-LL	MEXICO	According to the Norm NOM-004-NUCL-1994 there are definitions for LLW, ILW, HLW and SF. Intermediate level waste is basically radioactive waste containing isotopes of medium to long half-lives at higher concentrations than LLW.
L/ILW-LL	NETHERLANDS	Material in gaseous, liquid or solid form containing radioactivity in excess of the relevant exemption or clearance levels for which no further use is foreseen.
L/ILW-LL	NORWAY	There is no definition for LILW-LL
L/ILW-LL	POLAND	See, also, Waste Definition Section for LILW-SL. LL waste - content of long lived isotopes (T1/2 > 30y) for: - solid waste = or > 100 ALI/m ³ - liquid waste = or > 0.01 ALI/m ³ ALI - annual limits of intake of radionuclides [Bq]
L/ILW-LL	SLOVENIA	refer to the Waste Definitions cited for LILW-SL
L/ILW-LL	SOUTH AFRICA	see Definitions for LILW-SL
L/ILW-LL	SWEDEN	see Waste Definition section for LILW-SL
L/ILW-LL	SWITZERLAND	No precise definition L/ILW-LL broadly comprise all reprocessing waste other than vitrified HLW and LLW. Some waste types from NPP and from medicine, industry and research may be long lived.
L/ILW-LL	UKRAINE	see "waste class" section for LILW-SL
L/ILW-LL	USA	Please refer to the definition in the waste class section for LILW-SL.
L/ILW-LL	UZBEKISTAN	Uzbekistan does not use the LILW-LL classification.
HLW	BELGIUM	No.
HLW	BULGARIA	see Waste Definition Section for LILW-SL
HLW	CANADA	In Canada, LLW is defined as all radioactive waste except spent fuel and Uranium mine/mill tailing waste, therefore, it includes the HLW generated by AECL and described in this IAEA database

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IAEA Waste Class	Country	National Definitions (extracted verbatim from the WMDB records)
		<p>record. However, for the purposes of this IAEA survey, HLW are reported separately, not as part of LILW.</p> <p>Most of the HLW summarized here is from the dissolution of irradiated uranium targets for the production of Mo-99.</p>
HLW	FRANCE	HLW are made of vitrified fission products from reprocessing.
HLW	GERMANY	The is no definition for HLW waste in Germany. To fit the data into the format of the WMDB, non-heat generating waste appears under LILW/SL and heat generating appears under HLW and Spent Fuel.
HLW	HUNGARY	high level waste greater than 5E8 kBq/kg
HLW	INDONESIA	see Waste Definition for LILW-SL
HLW	ITALY	HLW from the reprocessing of the spent fuel
HLW	MEXICO	Spent fuel (SF) is defined as HLW when it is declared as a waste. HLW also includes materials from the primary extraction cycle or other processes in the processing of SF and solidified liquid from the process.
HLW	NETHERLANDS	Material in gaseous, liquid or solid form containing radioactivity in excess of the relevant exemption or clearance levels for which no further use is foreseen.
HLW	SLOVAKIA	In preparation.
HLW	SPAIN	Although no explicit definition exists in regulations currently in force, high level wastes (HLW) include vitrified waste generated as a consequence of reprocessing the GCR spent fuel and any other waste exceeding the limits established for L/ILW, different from Spent Nuclear Fuel.
HLW	SWEDEN	The IAEA definition for HLW is waste that has a heat output of >2kW/m ³ with long lived nuclides exceeding limits for LILW-SL. By this definition, Sweden does not have any HLW.
HLW	SWITZERLAND	HLW are the vitrified reprocessing waste or spent fuel elements if deemed to be disposed as waste.
HLW	UK	The 1995 White Paper on radioactive waste management policy (Cm2919) gives the current UK radioactive waste categorisation.
HLW	UKRAINE	<p>SRRAW-85 defines:</p> <p style="padding-left: 40px;">by specific activity: High Level Liquid RAW - 37 GBq/l and more</p> <p style="padding-left: 40px;">by dose rate at the 10 sm. distance from the surface: Solid RAW of III Group - more than 10 mZv/h</p> <p>SR NPP-88 defines Solid HLW as with gamma-radiation doze rate at the distance 10 sm from the surface - more than 10 mZv/h; specific activity for beta-irradiators - more than 3.7x10⁽⁹⁾ Bk/kg and alpha-irradiators - more than 3.7x10⁽⁸⁾ Bq/kg</p> <p>by surface contamination value: for beta-irradiators - more than 1x10⁽⁷⁾ particles/sq.sm min for alpha-irradiators - more than 1x10⁽⁶⁾ part./sq.sm min</p>

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		Liquid HLW - Liquid Waste with volume activity not less than 3.7x10(10) Bq/l
HLW	USA	<p>The following was received from the USNRC =====</p> <p>10 CFR Part 60: High-Level Waste is defined as: (1) Irradiated reactor fuel, (2) liquid wastes resulting from the operation of the first cycle solvent extraction system, or equivalent, and the concentrated wastes from subsequent extraction cycles, or equivalent, in a facility for reprocessing irradiated reactor fuel, and (3) solids into which such liquid wastes have been converted.</p> <p>The following was received from the USDOE =====</p> <p>The definition of HLW, as contained in the Nuclear Waste Policy Act of 1982, is as follows: High-level waste means: A) the highly radioactive material resulting from the processing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentration [to require permanent isolation]; and B) other highly radioactive material that the Commission, consistent with existing law, determines by rule requires permanent isolation.</p> <p>***** NOTE: Waste volumes listed below were provided by the USDOE. Also note, the IAEA's waste management database can only record a single status for HLW (as-is or conditioned). As such, the division between as-is and conditioned for the projected waste volume is recorded in the "Events" section *****</p>
TRU	BELGIUM	The regulations do not contain such a definition/classification.
TRU	BULGARIA	see Waste Definition Section for LILW-SL
TRU	CUBA	The regulations do not include a classification for low and intermediate level waste. However, the national competent authority has established waste categories and limits. Radioactive wastes are classified according to their physical characteristics and the concentration of radioactive materials in them.
TRU	CZECH REP.	The Czech Republic does not use an explicit definition for alpha bearing waste. The criteria for radioactive waste management including classification are approved by Regulatory Authority for every waste stream.
TRU	ESTONIA	<p>Definition is given in radiation Protection Act (1997), paragraph 28. Radioactive waste is: 1)materials containing radioactive substances or materials contaminated with radioactive</p>

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IAEA Waste Class	Country	National Definitions (extracted verbatim from the WMDB records)
		<p>substances where the content of radioactive substances exceeds the limits stipulated in paragraph 6 of this Act, and for which is no intent of future use;</p> <p>2)radioactive substances or radiation devices containing radioactive substances ownership of thereof cannot be established;</p> <p>3)produced in nuclear facilities radioactive substances or materials contaminated with radioactive substances, and radioactive component parts of decommissioned nuclear facilities.</p> <p>Paragraph 6 in Radiation Protection Act: The Government of the Republic shall establish by ordinance the maximal limits of total amounts af radioactive substances and the maximal limits for specific activity thereof exempted from the requirements of radiation activity licensing. (The limits established are in accordance to the exemption levels in BBS for Radiation Protection, IAEA).</p>
TRU	INDONESIA	There is no definition for TRU waste in Indonesia - see Waste Definition for LILW-SL for current waste classifications
TRU	ITALY	According to the TG26 the alpha bearing wastes are considered as 3rd category waste.
TRU	MALAYSIA	No
TRU	MEXICO	There is no specific definition in laws, regulations or standards for this type of waste.
TRU	NORWAY	There is no definition for TRU waste.
TRU	POLAND	<p>See, also, Waste Definition Section for LILW-SL.</p> <p>Alpha bearing waste - content of alpha isotopes: - solid waste = or > 100 ALI/m³ - liquid waste = or > 100 ALI/m³</p> <p>ALI - annual limits of intake of radionuclides [Bq]</p>
TRU	SWEDEN	There is no definition for TRU waste in Sweden.
TRU	SWITZERLAND	<p>No precise definition</p> <p>TRU is included in L/ILW-LL which broadly comprise all reprocessing waste other than vitrified HLW and LLW. Some waste types from NPP and from medicine, industry and research may be TRU.</p>
TRU	UKRAINE	<p>BSR-72/87 and SRRAWM-85 defines:</p> <p>Solid waste are considered as radioactive in case waste specific activity is more than 7.4 kBq/kg for alpha-active substances (more than 0.37 kBq/kg for transuranium radionuclides);</p> <p>Surface contamination levels are more than 5 alpha-particles/sq.sm min)</p>
TRU	USA	<p>please refer to the waste class section for LILW-SL and to the following:</p> <p>The following was received from the USNRC ===== Yes. The regulation specifies as classification for certain concentrations of alpha emitting</p>

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IAEA Waste Class	Country	National Definitions (extracted verbatim from the WMDB records)
		<p>transuranics with half lives greater than 5 years and for Plutonium 241 and Americium 242.</p> <p>The following was received from the USDOE ===== see both the Laws and Policies and the Regulations sections above</p>