LEGE	ND								
WASTE S	STREAM	Generical definition of the waste stream (origin, physical state, type, properties, process options)							
DESCRIP	PTION	Any additional information that can be useful to better explain waste characteristics							
		•	ssibly aligned with the following IAEA classification: VLLW, LLW, he survey, HLW are excluded)						
		Category	Conditions  Very low level waste (VLLW): Waste that does not necessarily meet the criteria of EW, but that						
		Very Low Level Waste (VLLW)	does not need a high level of containment and isolation and, therefore, is suitable for disposal in						
CLASSIF	ICATION	Low Level Waste (LLW)	Low level waste (LLW): Waste that is above clearance levels, but with limited amounts of long lived radionuclides. Such waste requires robust isolation and containment for periods of up to a few hundred years and is suitable for disposal in engineered near surface facilities. This class covers a very broad range of waste. LLW may include short lived radionuclides at higher levels of activity concentration, and also long lived radionuclides, but only at relatively low levels of activity concentration						
		Intermediate Level Waste (ILW)	Intermediate level waste (ILW): Waste that, because of its content, particularly of long lived radionuclides, requires a greater degree of containment and isolation than that provided by near surface disposal. However, ILW needs no provision, or only limited provision, for heat dissipation during its storage and disposal. ILW may contain long lived radionuclides, in particular, alpha emitting radionuclides that will not decay to a level of activity concentration acceptable for near surface disposal during the time for which institutional controls can be relied upon. Therefore, waste in this class requires disposal at greater depths, of the order of tens of metres to a few hundred metres.						
CURREN	IT STATUS	<b>Treated</b> : Treated waste change of composition	zed in the original form, i.e. not treated e (volume reduced; removal of radionuclides from the waste; ) and containerized este embedded in cement or other matrix						
			ns that produce a waste package suitable for handling,						
	Physical Characteristics	Main physical characte	eristics						
STREAM	Chemical Characteristics (CMR material, reactive, degrading, etc.)	Whatever element or complex that can impact on waste treatment and/or waste form durability, repository safety, human and environmental safety (e.g. flammables, explosives, free liquids, biological or toxic materials, complexants, water-soluble chlorides and sulphates, other aggressive chemicals) - CMR (Carcinogenic, Mutagenic, toxic for Reproduction)							
WASTE STRI CHARACTERI	Current packaged volume	Referred to the whole	waste stream						
CH A	Mass Current container typology Total Activity	Referred to the whole waste stream  Indicate the typology of the container in which the waste is currently packaged Indicate total activity of the whole waste stream							
	Main Radionuclides	Indicate main waste stream radionuclides							
ZATION	Availability of radiological characterization data (Yes/No)	Indicate if characterization data are available for the waste stream							
RADIOLOGICAL CHARACTERIZATION	Reliability of radiological characterization data (Low/Medium/High)	Indicate the reliability of the available characterization data:  - LOW: e.g. historical data of doubtful origin; derived by dose rate; etc.  - HIGH: complete characterization alpha, beta, gamma (Non Destructive Assay/Destrusctive Assay)  - MEDIUM: all other characterization levels between LOW and HIGH							
RADIOLOGICA	Planned radiological characterization methodology (if any; in case of unavailability or LOW reliability of data)	In case of unavailability or LOW reliability of data, indicate in this field if you planning some additional characterization and, in the affirmative case, which methodology will be employed (i.e. dose rate, ISOCS, IGS, SGS, Tomography							
NOIL	Availability of chemical characterization data (Yes/No)	Indicate if characterization data are available for the waste stream							
RACTERIZA	Reliability of chemical characterization data (Low/Medium/High)	- <b>LOW</b> : e.g. historical d - <b>HIGH</b> : complete chen	nical characterization by means of lab analysis						
CHEMICAL CHARACTERIZATION	Planned chemical characterization methodology (if any; in case of unavailability or LOW reliability of data)	In case of unavailability	naracterization levels between LOW and HIGH  y or LOW reliability of data, indicate in this field if your country is nal characterization and, in the affirmative case, which mployed						
-	d Disposal Facility Type rface/other)	NEAR SURFACE: if the waste stream is expected to comply with near surface WACs (Name of the Repository if available)  OTHER (Medium depth, geological): if the radioactive content of the waste stream is expected NOT to comply with near surface WACs							
WASTE TREATMENT AND/OR CONDITIONING PROCESS	Planned waste treatment process (if any)	Indicate the treatment (even as preliminary)	t and/or conditioning process (if any) which has been identified						
WASTE TREATI	Implementation phase (Qualified/In course/R&D/Concept)	Qualified: the process In course: the process R&D: the process is be							
Referen	ce WACs	Indicate the WACs (if a the waste stream	ny) used as reference in your Waste Management System for						
Criticalit	ties	Indicate the aspects fo	r which the management of the waste stream could pose						
Julia		possible criticalities							

			I	T		1		WASTE STREAM CH							WASTE STREAM CH	IARACTERIZATION				WASTE TREATMENT AND/	OR CONDITIONING		
ID	WASTE STREAM	COUNTRY	DESCRIPTION	CLASSIFICATION	CURRENT STATUS	Physical Characteristics	Chemical Characteristics	Current packaged volume	Mass	Current container	Total Activity	Main ladionuclides	R. Availability of characterization data	Reliability of characterization	ACTERIZATION  Planned characterization methodology	Availability of characterization data	Reliability of characterization	Planned characterization methodology	EXPECTED DISPOSAL FACILITY TYPE (Near Surface/Other)	PROCESS  PLANNED WASTE TREATMENT/ CONDITIONING PROCESS	IMPLEMENTATION PHASE	REFERENCE WACs	CRITICALITIES
	Sealed radioactive sources		Sealed radioactive sources - lightning rods,		same ted dispetled and	Characteristics	Not available	(m3)	(kg)	typology	(Bq) F		(Yes/No)	data (LOW/MEDIUM/HIGH) MEDIUM	(if any; in case of unavailability or LOW reliability of data)	(Yes/No)	data (LOW/MEDIUM/HIGH)	(if any, in case of unavailability or LOW reliability of data)	NearSurface	PROCESS  (if airry)  Container suitable for transport and starage. Technology for disponal is not developed yet, but most likely it will be disposed in ear-out-not deposed facility or in borehole that foresees the	(Qualified/in course/R&D/Concept)	N.A.	uncertain risealiiretina mertai
	(lightning rod, sources from medicine and industry)  Sealed radioactive sources		Sealed radioactive sources - lightning rade, sources from medicine and industry; domanted, exclosed stateless steel stube, placed into the lead container Sealed radioactive sources - lightning rade, beta sources, sources from medicine and	-	segregated, diamantied and packaged			Not available	Not available	lead containers (2x88)/ 2x50 liters)	64	5u252,354, Co60, Cx127 55, Co60, Nr85, Sr90,								Constitution.	Qualified		uncertain classification, partial characterization
	Sealed radioactive sources (lightning rod, sources thom exedicine and industry) Sealed radioactive sources (lightning rods, sources from exedicine and industry)		bets sources, source train meacure and industry, placed in original thirding (sould not be domanted from original containers, boilders and deuteral lans the deur Seed of and a state of the sources from medicine and industry; dismanted, exclosed stateless steel tube, dismanted, exclosed stateless steel tube,	LLW/NEW	segregated, placed in original shielding into the drum dismantled and packaged	Sold Sold	Not available	Not available Not available	Not available	metallic drum (200 liters)		109, C1127, Pet147, lu152,154, Ru226, 0226/Be, Am241/Be Eu152,154, Co60, C1127	Yes	MEDIUM		No No			Near Surface/ Other Near Surface	repackaging in container suitable for transport and storage	Qualified	NA.	uncertain classification, partial characterization uncertain classification, partial characterization
	seedicine and industry)  Sealed radioactive sources (sources from medicine and industry)	CROATIA	Sealed radioactive sources - sources from medicine and industry: dismantled, enclosed	_	dismantled and packaged	Sold	Not available	Not available	Not available	lead containers (Zx)		Cs187 192, Cd109, Bu128, le55, Gd153, Kr85, ws147, TUD4, Sr80, Ru226, Ru226/Bo, s241, Cm247, Cs187,	Yes	мерим		No			Near Surface/ Other		Qualified	N.A.	characterization  uncertain classification, partial characterization
(S			staintess steel tube, placed into the lead container  Sealed radioactive sources - smoke detectors; est characterized and conditioned but only		not conditioned but only collected and packed	Sold	Not available	Not available	Not available	metalik drum (200 liters), platik wessek (7x50 liters), wooden box (50		Ra226, Ra226, Bo, 1241, Cm247, Cc137, 1663 Foch 1241, Ra226, others	No		190	No			Other	conditioning and packaging in container suitable for transport and storage	Concept	NA.	uncertain classification, no characterization
ces (DSRS)	Sealed radioactive sources (smoke detectors)  Sealed radioactive sources (ources from medicine and industry)  Sealed radioactive sources (neutron sources)		not characterised and conditioned but only collected and sociated Sealed radioactive sources - sources from medicine and industry; placed clinic be plastic warracted. Sealed radioactive sources - neutron sources; discussful, enclosed stainless steel tube, put of in stabless steel and solvetheries container sources; Sealed radioactive sources - radium sources; Sealed radioactive sources - radium sources; Sealed radioactive sources - radium sources;	ILW	collected and packed	Sold Sold	Not available	Not available Not available	Not available	plastic wessels (4x25 liters) stainless steel and polyethylene container	Not available	Co60, Ra226, Am241/Be Am241/Be	No Yes	мерим	190	No No			Other	conditioning and packaging in container suitable for transport and storage	Concept	NA.	uncertain classification, no characterization uncertain classification, partial characterization
ive Sources	Sealed radioactive sources (radium sources)		in stainless steel and polyethylene container Sealed radioactive sources - radium sources; dismattled, enclosed with lead tube, placed into the stainless steel drum with concrete shieldine	-	dismantled and packaged	Solid	Not available	Not available	Not available	drum coated in concrete (2x200 liters)	4,905+10	Ru226	Yes	LOW		No			Other	not defined yet	Qualified	N.A.	uncertain classification, partial characterization
Radioactive	Disused radioactive sealed sources	DENMARK	Disused sources from external users	No national classification scheme exists. According to Terms for Operation and Decommissioning, issued by the Regulator, Dekom is obliged to follow the classification scheme of Islân GiG-1. Specific waste streams are not listed to the classification.	. kaw	Solid	Not available	Not compiled	Not available	Strong sources in original shielding. Other sources mixed in drums	Not available	Charcterisation in progress	Yes	LOW	TNO	Yes	Low	180	Other (DGR)	100		NA.	Partial characterisation
Sealed	Radioactive Sources embedded in concrete		Radioactive Sources from medical/industrial institutional uses, encapsulated in concrete	No national classification scheme exists.	Encapsulated in concrete	Solid Solid	Not available	4,926-02	-	metallic drums (200/280 liters)	6,255+14 H2	, Cus 37, Ru226, CS4, Co60, U238, W95, Cm244, M653, Sr90	Yes	LOW	TED	No		N.A.	Other	Packaging in high integrity container (robust contair designed for assuring conditioning without readvish Packaging in high integrity container (robust contair designed for assuring	Concept	NA.	uncertain characterization, uncertain classification, unqualified concrete matrix, uncertain treatment uncertain characterization, uncertain classification, unqualified concrete
Disused	Sources (lightning sod) embedded in concrete Disused Sealed Sources	ITALY	Sources (lightning rod) from civil building dismantling, encapsulated in concrete Sealed Sources from reprocessing plant (U-Th), from WWR plant and from Medical-Industrial	for a new classification according to Safety Assessment. On the basis of the actual radionuclide content/activity the assumed classification is 10W (geologic disposal)	Encapsulated in concrete  Sealed in their original container	sources mounted on ceramic disks	Not available	1,506-01 2,866-00	1,255-06	Shielded drum (80 liters) metallic drums (200/280 liters)		Ra226 or Am261 m241, Ra226, Co60, lipha sources, beta	Yes	LOW	190	No No		N.A.	Other	Facuaging is high integrity container (robust contair designed for assuring conditioning without matrix) Fackaging is high integrity container (robust contair designed for assuring conditioning without matrix)	Concept	NA.	uncertain characterisation, uncertain classifician, unqualified concrete matrix, uncertain treatment uncertain characterisation, uncertain classification, uncertain treatment
÷	Lightening rods		154 items at the interim storage of the ACSRD the activity per item is "50 Miliq	. ILW	Raw	Solid	N.A.	1,805-00	N.A.	metallic drums of 200 liters with shielding	7,706+09 #	m-241 and Ra-226	No	-	ton destructive y-spectrometry				Other (possibly multi- purposes borehole)	Packaging in high integrity container (valuest contair designed for assuring conditioning without matrix) with the apropriets shielding and without communities.	Concept	N.A.	
	Disused Sealed Sources at the NCSRD storage	GREECE	Sealed Sources from Medical-Industrial Arresearch uses without certificates	LUM/ KW	Sealed in their original container	Solid	-	2,006-00	N.A.	metallic drums (200/400 libers)	Unknown 2	m241, Ru226, Co60, épha sources, beta sources, neutron sources	No		Search for drawings in case the manufacturer, the model and the serial number are known otherwise X-ray should be performed. Then y- spectrometry with MCVP simulations or development of a linensistrahlung				Other (possibly multi- purposes borehole)	Dismantle and packaging in high integrity container (robust contain designed for assuring conditioning without matrial, with the apropriate shielding and without comentation. The HEC is off the shelf.	Concept	N.A.	Characterization is a challenge
	Sources (lightning rad)		Sources (lightning rod) from civil building dismarting 27	ILW	Drummed	Solid sources mounted on	Not available	7	,	,		Razzá or Amzés	,	uow	or development of a linematicalising measurement technique with MCNP electricions for here courses TBD				Other	cementation. The HIC is off the shelf.  Dismantled sources placed in steel drums	Concept	NA.	Lack of characterization information, uncertain status and treatment
	Disused Sealed Sources	NORWAY	2	LLW/NW	1	ceramic disks Solid Solid (some stainless	Not available	7	,	7	7	,	7	LOW	160				Near Surface/Other	,	Concept	N.A.	performed Lack of characterization information, uncertain status and treatment performed
	Sealed Radioactive Sources from medicine and industry	AUSTRIA	Sealed courses encapsulated and insersted into lead or steel containers (in case of in-) and Ra-226 courses these containers are welded shut) the containers then go into cemented 100-liker drums.  Metal parts, housings, devices with Ra color,	ULW-St and LL (in case of Are-241 and Ra- 226 sources)	Conditioned waste drums	Solid (some stainless steel drums welded shut with gaseous nuclides like Kr-85 and H-38		120 dnums	NA.	200 Liter drum	24,852 GBq 4 (not decay 24 corrected) Ra	2-137, Co-60, Am- 11, Kr-65, Sr-90, H-2, No 226, Pm-147, Ir-192	currentation of referen	HIGH	Well documented reference activities were checked before conditioning	vis	MEDIUM	Update by Checking the documentation.	To be determined	segregation, encapsulation, cementation	in Course	WAC only available for interior storage	Uncertain disposal
	Solid RW		Metal parts, housing, device with Ka color, plantic boses with Ra one, metal boses contaminated with Ra, parts of englose contaminated with Ra; placed into the steel draw plantic bags with tester camples (CCLTP), plantic bags with tester camples (CCLTP), plantic bags (EGLTP), PG2161; Plantic bags with		segregated and packaged	Solid, Nan-comburtible	Not available	Not available	2,006=02	steel drams (2x200 liters)	Not available	Ru226	Yes	LOW	TRO	No		180	Near Surface	Two options:  1. segregation of non-radioactive and	Concept	N.A.	partial characterization
	Solid RW Solid RW		various waste material from experimental working with EuLS2: placed into the steel	LLW	packaged packaged	Solid, Combuttible	Not available	Not avallable Not available	1,005-02	steel drams (8x200 liters)		1137, 81297, P6219, Eu152 1137, Eu152, U238, T16234	Yes	LOW	100	No No		180	Near Surface	Two options:  L. ograpation of non-radioactive and radioactive arterials, appropriate treatment (compaction etc.), conditioning and packaging  2. and rapackaging  2. and rapackaging  in the third construy where it would be treated and conditioned in multipurpose reinforced contractive containers with LLW from Krilko NPP	Concept	NA.	partial characterization
	Solid RW		Gram  Large plastic bags with contaminated objects, cluthes, gloves, pager, candboard etc.; placed into the steel draw.  Big bags filled with pager and wadding or wells of cellulose filters, gloves; placed into the stee of cellulose filters, gloves; placed into the stee.  Plastic base and bottles, metal boses, places.		packaged	Solid, Combustible	Not available	Not available	2,606=02	steel drams (2x200 liters)	Not available	Cs137	Yes	LOW	160	No		180	Near Surface	treated and conditioned in multipurpose reinforced concrete containers with ULW from Kriko NPP	Concept	NA.	gartial characterization
	Solid RW Solid RW		plastic syringes, paper, metal parts, etc.; elacad into the steal drom. Waste from dismantied smoke detectors placed into the steel drum.	No classification	packaged packaged	Solid, Combustible Solid	Not available	Not available	1,606=02 2,456=02	steel drams (2x200 liters) steel drams (2x200 liters)	Not available	Co60, Cs137 Am241	Yes	LOW	160	No No		180	Near Surface	not defined yet	Concept	NA.	partial characterization uncertain classification, partial characterization, uncertain expected disocol facility trace
	Solid RW	CROATIA	Fasale calibration sources for gamma connects from housinks elected into the steel drawn. Various plattic and paper water, emply bootles, gloves, test tubes, various metal objects, plantic bages who paper, gloss, wadding, etc, cardiboard bosses, plantic bage, paper, gloss, plantic battles and plans, vessels, warious contaminated materials; placed into		packaged	Solid, Nan-combustible	Not available	Not available	1,006-02		Not available	Gu67	Yes	LOW	160	No		180	Near Surface		Concept	N.A.	partial characterization
	Solid RW		undding, etc, cardinand bases, pinotic bage, paper, glass, plantic bottles and pipes, vecesis, various contaminated materials; placed into the steel from Plantic parts of bottles and cardinary, contaminated wood, glass, ampoules and test tabes in a plantic boses, various eruptied but		packaged	Solid, Combustible	Not available	Not available	6,105-02	steel drums (7x200 liters)	met available	mixture	Yes	LOW	TRO	No		180	Near Surface	Two options:  1. segregation of non-radioactive and radioactive material.	Concept	N.A.	partial characterization, uncertain characterization
Naste	Solid RW		contaminated second, glass, ampoules and text tubes in a plastic bases, various empired but constaminated case, glass june, small nestal parts, plustic boses and cases with powder, ceres, coil, metal parts of herreix and containers; paper, glasses, plastic bags,	LLW	segregated and packaged	Solid, Combustible	Not available	Not available	7,806=02	steel drams (8x200 liters)	Not available	mixture	Yes	LOW	100	No		180	Near Surface	Two options:  I. segregation of non-radiacative and radiocative naterial, appropriate treatment (compaction ett), conditioning of packaging  2. and transported to appropriate facility is the third occurry where it would be treated and conditioned in multipurpose relations of contractive containers with LLW.	Concept	N.A.	partial characterization, uncertain characterization
d Mixed Wa	Solid RW		Candboard, ristory gloves, shoes stc.; placed into the steal drum Various objects: paper, clothes, gloves, wood, candboard, shoes etc., cyclotron taggets,		partial segregated and packaged	Solid, Non-combustible	Not available	Not available	2,806=02	steel drams (2x200 liters)	Not available	ixture - unspecified	Yes	LOW	760	No		180	Near Surface	treated and conditioned in multipurpose reinforced concrete containers with LILW from Kriko NPP	Concept	N.A.	partial characterization, uncertain characterization
2 - Solid	Solid RW		and containers; placed into the stand down 2 pieces of semi-circular metal tiles, large plantic bag with protective clothing, paper, wadding, cardboard, plantic ampoules etc.;	1	packaged	Sold	Not available	Not available	1,206-02	steel drum (200 liters)	Not available	mixture - unspectfied	765	LOW	160	No.		180	Near Surface		Concept	NA.	characterization  partial characterization, uncertain characterization
	Mixed waste from operations etc.	DENMARK	elected into the stead from  Mastic, clothes, pages, metals e.g. (iron, aluminium), minor sources, smake detectors, arganic specimens etc.	No national classification scheme exists. According to Yerns for Operation and Decommissioning, issued by the Regulator, Dekon is obliged to follow the classification scheme of LREA GSG-1. Specific waste	Raw, Compressed in double layer drums	Solid, small amounts of liquids packed in absorbing materials	Reactive degrading	ca 5400 drums	Not compiled	Double layer drums (conditing og 115 and 230 I drums respectively, separated by 5 cm of concrete)	6,006+12	Charcterisation in progress	Yes	LOW	110	No	LOW	TRO	Other (0680)	Compressed into drums	TBD	NA.	Partial characterisation
	Heterogeneous material	ITALY		scheme of IAEA (566-1. Specific waste streams are not linked to the classification scheme	Raw	absorbing materials	Net available	4,285-01	R,256-02	shielded metallic and	4,376+51	1137, U238, Cri244, 154, Pu238, Pu241, 5190	Yes	LOW	Sampling for radiological characterization (before re-treatment phase)	NO.		Sampling for chemical characterization (before re- treatment phase)	Other	Packaging in high integrity container (robust contain designed for assuring conditioning without reads)	Concept	NA.	uncertain characterization
		/med	Waste from the Analytical Cells (glace or plantial containers, cape, restal except, rags, electrical containers, cape, restal except, rags, electrical in plantic bowls (30 bowls per container) from association per Cellsta.  Waste Your the research restor and the diagnostic and therapeutic radionactifies production department (glace or plantic	LOW/ KW	Raw	Sold	Not syntate	2,006-01	NA.	concrete barrels (420 liters/2,5mil) shielded or not metallic drums (200 liters)		C1127, C0-60, Ag- 08m, Eu-152, Tc-99	No.		characterization (before re-treatment phase)  Non destructive y-spectrometry, gnoss alpha beta measurements, representative sampling for radiochemical dealyses	No.		characterization (before re- treatment phace)  Sampling in paralel with the radialesical characterization	Near surface/ Other (possibly	(robust costair designed for assuring conditioning without readris)  Segregation is different management routes, packaging and then treatment and conditioning is different ways	Concept	NA.	uncertain characterization  Radiological and chemical characterization and segregation in different management routes
	Heterogeneous material	GREECE	diagnestic and therapeutic radionuclides production department (glass or plastic containers, caps, evetal ecraps, rags, electrical evaluation exclusions and 5											-	Search for drawings is case the manufacturer, the model and the serial number are known or X-ray and v-			Case by case. If characterization is not possible, the worst case will be	Near surface / Col	After sorting, the waste should be			
	Consumer products		Instruments, several objects (number 22%)	LEWY RIW	Raw  Confidenced wants downs that	Solid	N.A.	4,006-00	N.A.	metallic drums of 200 liters		Ra-225, Are-241, Th232, Sr-90, deU	No	-	or development of a linemastration or development of a linemastration with MONP exercise for lasts recovered Acids from original data (from	No		assumed (eg reactive metal for any metal)	Near surface/ Other (possibly multi-purposes barehole)	treated and conditioned in different ways	Concept	NA.	Characterization is a challenge
	Solid waste in 100 Liber drums cemented into 200 liber drums ("linbamagenous waste")	AUSTRIA	Combustible and non-combustible waste in 100 Liter draws, convented into 200-Liter draws	LEW-SL and LL	Conditioned waste drams that are going through a reconditioning project at the moment	Mixed waste	Chemical Analysis done on samples	about 4000 drums	Not available before reconditioning	200 Liter drum	1,863 GBq 5 (not decay 11 corrected)	0-90, H-3, C-14, Co- (7, Pu-241, Am-241, Co-40	Yes	HIGH (due to reconditions project)	producers) and original measurements, of every drum is inspected and sampling done per batch of drums during the reconditioning process (as well as examine according of the sobolis drum)	NO (YES after Reconditioning project)	HIGH alterwards	impection of contents of every reconditioned drum, sampling I drum per week (both during dismanting). Then Gamma-Scan of each drum before re-treatment.	To be determined (Near Surface)	Reconditioning of the waste (segregation fullowed by incineration in case of combustible waste, then compaction, drying, and packaging)	is Course	WAC only available for interim storage	Waste that has to be reconditioned
	Filters containing Coolum	NETHERLAND	Sreal anount of waste, transport limitations are the problem	ULW		solid, water content unknown Solid, Nan-	Contains pieces of PVC, risk of HCI formation under gamma radiation	not yet available		599 I Drums	H	C+127	under research	HIGH	key nuclide method				Other (GDF)	conditioning  Two options:  L. segregation of non-valuative and radioative material, appropriate	coeditioning (UW operational), MFGG (UW in development)	LLW yes, ILW in development	Wet filters, undear how much water, and if contaminated
aste	Solid RW	CROATIA	Contaminated soil, small metal parts-granules; placed into the steel drum	LLW	packaged	Solid, Non- comburtible, comburtible (some small metal parts- granules)	Not available	Not available	4,806-02	steel drams (8x200 liters)	Not available	Eu652	Yes	utw	160	No		180	Near Surface	treatment, conditioning and packaging 2. and transported to appropriate facility in the third country where it would be treated and conditioned in multipurpose	Concept	N.A.	partial characterization
Powdery Wa	Silver sections	ITALY	Silver analities for the treatment of gaseous effluents from Viscal Off-Gas and disolver Off- Gas from reprocessing plant  Contaminated soil coming from trench decentamination activities, scarification and	s LLW	Raw	Solid (powder)	Not available	6,606-01	7,606=01	metallic drums (200 libers)	1,895-09	1127, Su154, Sr90, Pu241	Yes	LOW	Sampling for radiological characterization (before re-treatment phase)	NO.		Sampling for chemical characterization (before re- treatment phase)	Near surface	reinfanced concrete containers with UEW from X/Sko NPP homogeneous conditioning by means of a new transportable system for in drum consent mixing with lost paddle (NL Co Ma R.)	incourse	N.A.	uncertain characterisation
3 - Pow	Contaminated soil  Contaminated soil with plutonium	GREECE	Contaminated sall coming from tranch decontamination activities, scarification and cleaning from illidit traffiding	ATTACKTA	Raw Raw	Solid (powder) Solid	Not available N.A.	1,555-03 6,006-01	1,845+06 N.A.	metallic drums (200/285 libers) metallic drums of 200 liters	NA P	04, H3, U236, U238, Cs137 0-238, Po-239, Po- 240, Po-241	Yes No	uow -	Sampling for radiological characterization (before re-treatment phase) Sampling for radiological analysis	NO No		Sampling for radiochemical analysis	Near surface	Nicto Ma.k.) Heterogeneous conditioning Solidification in cement	in Course Concept	NA.	uncertain characterisation
	Onummed contaminated soil	NORWAY	Soil contaminated with various radionactides including Activides (Pu) collected in drums and stored	ILW (long lived spiha activity concentration expected to be > 400 Bu(g)	Raw	solid (Exted?)	Not available	5,486-01	82200 (dry desity of 1.5 t/mit)	Steel drum? (0.33 mil)	Urknown ras	inknown (various Senuclides including Actinides-Pu)	No	LOW	Sampling for Beta/Alfa and cheesical Characterisation; Laboratory Gamma spectrometry status attachs.				Other	Unknown	Concept	NA.	Lack of characterization (radiological, physical) information
	Shalges	DENMARK	Shadges originating from water treatment. A large part has been bituminised, another part is dried-only.	According to Yerns for Operation and Decommissioning, bound by the Regulator, Dekone is obliged to follow the classification scheme of IAEA 656-1. Specific waste streams are not intend to the classification.	Some conditioned, some raw. See under description	Solid - some bituminised	Contains sodium suifate and chlorides	Not available	Not compiled	Double layer drums, as above	Not available (part of reised waste above)	Charcterisation in progress	Yes	LOW	160	Yes	Low	180	Other (DGR)	Some bituminised	New conditioning method to be decided	NA.	Chemical and radiological characterisation. Compsion
	Sludges	ITALY	Studges from PWR plants	ATTA	Raw	Sold	Not available	1,015-01	4,626-03	metallic drums (200/240 liters)	9,055-08	NIS9, NIS3, CIS9, CILB?	Yes	LOW	Sampling for radiological characterization (before re-treatment phase)	NO		Sampling for chemical characterisation (before re- treatment phase)	Near surface	homogeneous conditioning by means of a new transportable system for in drum censor mixing with last paddle "Or AMA 98 homogeneous conditioning by means of a new transportable system for in drum censor mixing with last paddle	Concept	NA.	uncertain characterization, uncertain treatment
89	Shaliges		Shudges from WWR plants	LLW	Raw	Solid	Not available	1,465-00	5,006-02	metallic container (Lm3) inside the retention tanks and other commonwests.	4,225-08	060, Cx137, NS9, N63	Yes	LOW	Sampling for radiological characterization (before re-treatment phase)	MO		Sampling for chemical characterization (before re- treatment phase)	Near surface	homogeneous conditioning by means of a new transportable system for in drum cement mixing with lost paddle PSI Fo Mo B 1	Concept	NA.	uncertain characterization, uncertain treatment
4 - Sludge	Shalges	GREECE	Sludges from: 15 liquid waste retention tanks at the NCSKO, the old liquid waste evaporator and the GRR-1 delay tanks	VLLW/ LEW	Raw	Solid	N.A.	2,006-01	N.A.	and other components. Sampling from Equid waste retention tanks is possible. Sampling from other research reactor components will be	Unknown Mi	53, Co50, Cx137, Ag- 108m, Eu-152	No	-	Sampling for y-spectrometry, radiochemical analyses	No		Sampling for chemical analyses (elemental & compounds analysis)	Near surface	Salidification in cornect	Concept	NA.	chemical compounds characterization is challenging because the necessary equipment is not available for radioactive substances.
4	Sludges (1 Non-Alpha)		Non-alpha containing studges from from liquid waste collection/freatment 7 Build-up in liquid waste tanks 7	LW	Raw	Liquid	Not available	7	2	components will be possible during deconvolutioning.	, A	tiluation and fission reducts e.g. Cst.k7, FeSS, Co60, Sri90 7	,	LOW	Sampling for Bets and chemical Characterization; Laboratory Gamma spectrometry passuranacis				Near surface	,	Concept (Solidification)	NA.	Uncertain characterization, uncertain treatment?
	Shudges (2 Apillus)	NORWAY	Alpha containing sludges from from liquid waste collection/freatment 7 Build-up in liquid waste tanks 7	LLW/NEW	kaw	Liquid	Not available	,	,	,	,	aranium, actinides (Are241, Pu229, Pu249, Pu241) and listin products Co- 127, Sr 99 ats. 2	,	LOW	Sampling for Beta/Alfa and chemical Characterisation; In situ Gamena spectrometry enouraments				Near Surface/Other	,	Concept (Solidification)	NA.	Uncertain characterisation, uncertain treatment?
	Cemerted studges and ashes (homogenous)	AUSTRIA	shudges and ashes (from our indinerator facility) cemented into 200 Liter drums	LILW-SL and LL (in case of alpha nuclides in the ashes)	Conditioned waste drams that are going through a reconditioning project: beacause of new dram racks, lengthening of the period till	Solid (concrete zylinders)	Chemical Analysis done on samples	about 2500 deures	360 kg per drum on average	200 Liter drum	172 GRq (not Co	187, 37 98 416, 7 -60, Co-137, Yh-232, lon-341, Ra-2266u- 154, Ag-188m	YES	HIGH (due to recorditions project)	Aside from original measurements sampling of each drum is done during the reconditioning process (as well as gamma scanning of the whole drum)	NO (YES after Reconditioning project)	HIGH afterwards	During re-treatment sampling of every drum (sia milling), chemical characterization of each batch of drums)	To be determined (Near Surface)	cemerted waste, repadiaging, checking for clearance (waste reininkastice)	in Course	WAC only available for interim storage	Discussions regarding clearance of waste drums with decayed waste
	Spert ion eachange resins	DENMARK		No national classification scheme exists According to Yerrus for Operation and Decorreliscioning, board by the Regulator, Dekorn is obliged to follow the classification scheme of UAS (656 -1, Specific waste streams are not linked to the classification.	Froi disposal (to 2015)  Cast in bitumen	Solid	Not available	Not compiled	Not available	Double layer drums, as above	(part of mixed	Charcterization in progress	Yes	LOW	TRO	Yes	LOW	180	Other (DGR)	Bituminisation	New method TBD	NA.	Partial characterisation
			Nos exchange resins from: -PWR, come resin barrel have been inserted in															Sampling for chemical					
	ion eschange resins		overpack and comented, they will be entreated deprocessing plant, come resins were used to neetly under from shorans need	viiwjiiw	Raw/encapsulated in concrete	Solid	Not available	1,346-01	6,036=03	shielded drums(25 liters), metallic drum (220 liters)		2117, Fe55, Co60, 5r90, Am241	Yes	uow	Sampling for radiological characterisation (before re-treatment phase)	NO NO		characterisation (before re- treatment phace)	Near surface	homogeneous conditioning by means of a new transportable system for in drum cement mixing with lost paddle (Si.Co. Ma.R.) Sogin is depvetoping a new West Oxidation (WOX) treatment process and	Concept	N.A.	uncertain characterization, uncertain treatment
ge resin	ion exchange resins	ITALY	ion eachange resins from PWR ion eachange resins from reprocessing plant, some resins were used to pully water from	LLWytew	Raw	Solid	Boron, sulphate	9,966-01	1,656-05	shielded metallic coetainer (800 liters) shield drums(25 liters), metallic drums (220 liters), metallic container (1,26	0	239, Am245, Cc137, n239, Pu249, Sr90 137, Am245, Gu554,	Yes	LOW	Sampling for radiological characterization (before re-treatment phase) Sampling for radiological characterization (before re-treatment	NO NO		Sampling for chemical characterisation (before re- treatment phase) Sampling for chemical characterisation (before re-	Near surface	Oxidation (WOX) treatment process and homogeneous conditioning by means of a new stransportable system for in drum censent mixing with lost paddle (VL Fr. Mo. 9: 1 homogeneous conditioning by means of a new stransportable system for in drum	In course	N.A.	
n exchan	ion exchange revins		some resins were used to purify water from storage pool ion exchange resins from SWR plants	LLW	Raw Raw	Solid Solid	Not available	9,44E=00 1,46E=00	8,855-03 5,006-02	metalic container (1,26 metalic container (1,26 mai)		239, Pu239, Pu240, Pu241, 5r90 Co60, Cx137, MS9, N63	Yes	LOW	characterisation (before re-treatment phase) Sampling for radiological characterisation (before re-treatment phase)	NO NO		characterization (before re- treatment phase)  Sampling for chemical characterization (before re- treatment phase)	Other Near surface	homogeneous conditioning by means of a new transportable system for in drum censent mixing with lost paddle ISLCO.Ma.B.1 homogeneous conditioning by means of a new transportable system for in drum censent mixing with lost paddle	Concept	NA.	uncertain characterization, uncertain treatment uncertain characterization, uncertain treatment
S - lon	ion eachange resins	GREECE	ton exchange resins from: a) from the demine ratization co-flow regenerated units of the GRN-1 (open pool reacted)	VLIMIN	kaw	Solid	styreee divinylbenzene copolyrser of density 0.84 g cm-3	1,606-01	1,585-04	metallic drum (200 liters)		137, Ap 108m, Co60, Ev-152	Yes	мерим	Representative sampling for determination of OTM radiosectides	No		treatment phase)	Near surface	(Si.Co.Ma.R)  Solidification in connect in the future, the process is not available at the moment	Concept	N.A.	Surther characterization (chemical & radiological) in challenging, uncertain treatment
	ion exchange revins	NORWAY	reactor) b) come resine were used to purify the water from the fuel storage pool ton exchange resins from: Research Reactor operation	LLW	Drammed?	Solid	Not available	7	2	7		2137, FeSS, CoSO, SrSO, Am241	2	LOW	Sampling for Reta/Alfa and chemical Characterization; Laboratory Gamma spectrometry pages/aments				Near surface	None	Concept (Incineration)	N.A.	Uncertain characterisation, uncertain treatment
	Other ion exchange resins	NETHERLAND	ton exchange resins from: 27 Used for water purification	ILW/ILW	Drawned?	? two types of resins	,	7 3,806-00	1,815-04	2 500 to 200 L drums in 20 feet containers	2 6	) 3-137. Sb-125, Cd- 99, Co-60, Sr-60, Ni- 63 Fe-65	7 Yes	HIGH	key nuclide method	No		inspections and data collection of the wastes is on going and determination of suitable solutions	7 Other (GDF)	? Indineration in the future	7	NA.	2 COVAR is developing a (new, thenmal) processing rouse with plasma technology for organic liquid wastes and
ic ii	Organic wante	DENMARK	E.g. biological specimens	No national classification scheme exists According to Yerrus for Operation and Decorreliscioning, board by the Regulator, Dekors is obliged to follow the classification scheme of UAA (SGO -1, Specific waste streams are not linked to the classification.	Mixed with waste from operations and from external users in drums	Selld	Degrating	Not compiled	Not available	Double layer drums, as above	Not southhis	63 Fe-65 Charaterisation in progress	Yes	LOW	760	No.	LOW	underway 190	Other (DGR)	None	New method TBD	NA.	section characterisation
Solid Organic waste	Organic waste (wood)	ITALY	Wood tables and shelves	scheme of IMIA 656-1. Specific waste streams are not linked to the classification scheme VLLW	seers in drame  Orummed	Selid	Potentially degrading	1,855-01	5,626=03	Metallic case (685 litero)	2,016-08	C14, H13, Am241, 068, C1137, Eu152,	Yes	LOW	100	No		190	Near Surface	Inconcertion, then supercompaction and conditioning of inconcertion residual	Concept	NA.	Uncertain characterisation, uncertain treatment
95 - 9	Waste containing PVC	NETHERLAND	Mostly from experiments	uw		irradiated metals combined with PVC		few cubic meters,		Drums 25-30 L		AC the problem, not the muclides, which o varies	LLW is being haracterized, ILW is still pending	MEDIUM	key nuclide method	No		inspections and data codection of the wastes is on going and determination of suitable solutions underways	Other (SDF)	conditioning (LUW operational), MFOG (LUW in development)	conditioning (ILW operational), MFOG (ILW in development)	LLW yes, ILW in development	PVC is an issue as the chicride may come out when irradiated
Waste	Liquid organic waste  Organic liquid	ITALY	Meterogeneous liquid worte (water, cil and shudge, detengents, vivol glave) deniving from a monthly phosphate, kerseane deriving from reprocessing plant (u-Th) Ouganic liquid from research on faet elements.	rrw	Raw Raw	Elquid Elquid	Net available	3,706+00 2,006+00	1,856=03	metallic drums (200 liters)/tanks Steel container (2,9 m3)		U234, U235, U238 11527, Sr90, Ru228, 1128, Th232,U238	Yes	LOW	Sampling for radiological characterization (before re-treatment several Sampling for radiological characterization (before re-treatment several several characterization)	NO NO		sangling for chemical characterisation (before re- transment misses) Sampling for chemical characterisation (before re-	Near surface	solidification with polymer and homogeneous conditionin thermal treatment, solidification	in course R&O	NA.	No chemical characterisation, organic liquid No chemical characterisation, organic liquid
Organic	Organic liquid waste		Flatanium	ILW	Raw	Liquid Ore: Navid	Not available	2,665-00	6,886=02 4.366=04	metallic container (x 301)/tanks (60 libers)	2,266+11 An	1241, Pu229, Pu249, Pu241 14, Fe-51, H-3,Cl-26, 8-189, Ce-60, Sr-90, 8-113m, N-63, Sb-	744	LOW	chasel Sampling for radiological characterization (before re-treatment chase)	NO No.		Sampling for chemical characterization (before re- treatment phase) inspections and data collection of the waster is on going and	Other MORE	solidification with polymer and homogeneous conditioning/ homogeneous conditioning	MAD	N.A.	No chemical characterisation, organic (?) Equid, uncertain treatment
7 - Liquid (	Organic Squid  Organic Solvents	NETHERLAND	COVIA deem't have a functional processing route for organic liquid wastes  Organic solvents containing irradiated snanium residues 27	LLW	Raw	Org. Liquid Liquid	org, iftoxic, pH 5-9 Not available	4,066-01 3,086-01	4,36E+04 2,00E+02	30 and 60 L drums  Playsic canisters (100 Sters	Unknown	8-109, Co-60, 5r-93, d-112m, N-63, Sb- 125, Eu-554 2ranium, actinides (Am241, Pu229, h-249, Pu241) and ission products Co-	Yes No	MEDIUM	Customer information, chemical analysis, radiological analysis Sampling for Beta/Alfa and chemical Characterization;	No		the water is on going and determination of suitable solutions underway	Other (GDF)	Indineration in the Suture	RED None	in place	COVIA is developing a (new, thermal) processing rouse for organic liquid wastes and retins Lack of characterization (radiological, chemical and physical) information
,				No national classification scheme exists According to Terms for Operation and Decommissioning, lowed by the Regulator, Dekom is obliged to follow the classification scheme of IASA GGG 1. Specific worth streams are not braked to the classification scheme.		Solid			cs. 191	Steel containers (10 mm		137. Sr 80 etc. 7	Yes		Ouracterisation; Laboratory Games spectrometry ensouraments				Other (DSR)				
hite	Graphite	DENMARK	Graphite blocks		. Raw		Net available	Not compiled		Steel containers (10 mm steel, 212 cm x 147 cm x 129 cm)	-uct compiled	Charcterization in progress		LOW	TRO	no .	7	190 Wigner energy, chemical residues,		0.000	190	NA.	only partial characterisation  Lack of information about chemical characteristis for long term habitudour
8 - Graphite	Graphite	ITALY	Graphite from the receivate of the Latina Magnax reactor, still to be recovered. Graphite from the thermal column of the GRA-	NAMES AND SOME	Raw Raw	Solid: bricks	•	1,616-03	2,11E=06 6,10E=03	not dismantled yet, so far no deckion about decommissioning of the		A, H3, Co60, C1127, C128, Fe SS	YES	MEDIUM	sampling extraction, LSC, gamma spectromery non-destruction y-spectrometry for	Sampling	MEDIUM	porcelly, mechanical proprietie, floremability, SSM, explosice, liscivishility test	Other Other (possibly multi-	NO	AED	NA.	Lack of information about chemical characteristics for long term behaviour and mechanical strength for extraction. Characterization is MIDDIAM because referred to few samples physical characterization, validation of the neutron calculations results or
	Graphite Graphite Modu	NORWAY	Graphite from the thermal column of the GRR- 5 reactor Graphite blocks from the moderator and reflector of Research Reactors	NAME AND ASSESSED ASSESSEDA ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSEDANCE ASSESSED ASSESSE	Raw Raw	Selid: blockx Selid: blockx	,	3,806-00	6,106-03	no deckion about decommissioning of the research reactor	, «	II, C14, C060, CI36, U152, EU154, Fe55 I4, H3, C060, C1127, C129, Fe55	to (neutron calculations by others, not published)	LOW	non-destractive y-spectrometry for validation of the models Sampling for Beta Characterization; Laboratory Gamma spectrometry executements	No		TBD	Other (possibly multi- purposes borehole) Near surface/Other	No treatment - Disposal as it is  No Treatment with packaging 7	Concept	NA.	physical characterization, validation of the neutron calculation results or representative sampling for authorizative sampling to authorizative sampling to
Metals	Activated and contaminated metallic material	ITALY	Fuel channels, botts, fuel bundle fasteners, reactor instrumentation, liquid poison distributor, clean-up filter, conditioned in concreta Steel, aluminum, lead, etc (srews, botts, grid	ıw	conditioned in cement	Solid	Not available	9,006-01	3,285=04	non-standard metallic container (15mil)	2,415+14 A	m241, Co60, Cx127, 063, Pu228, Pu228, N240, Pu241, Sr90	Yes	LOW	TND Non-destructive y-spectrometry, gross	NO NO		180	Near surface/Other	No treatment - Okposal as is		N.A.	uncertain characterisation, not-standard coetainer dimensions safety assessment needed to weith possibility of dianosal in near surface association.
9- Met	Activated and contaminated metallic material  Activated metals	GREECE	Steel, ausmann, sean, oct (street, sorts, gra- plate, place, reachor interturencetation, segments of the spann fuel aluminium cladding viscous filter shininium cladding viscous filter shininium cladding from decommissioning projects and radiation experiments	VLW/LW/EW	Raw	Solid	N.A.	2,006-01	-	metallic drums (200 libers)  Drums 25-30 L		Co60, NG3, FeSS, 1137, Sr90, Pu238, 1239, Pu240, Pu241 Co-60, NI-63 Fe-SS	No, only for grid plate neutron calculations Yes	MEDIUM (overestimatical)	has destructive y-spectrametry, gross alpha beta measurements, representative sampling for reducthaminal by muclide method	No No		Chemical analyses (i.e. XRF), if necessary inspections and data collection of the wastes is on going and determination of suitable solutions	Near surface/ Other (possibly multi-purposes barehole) Other (GDF)	Salidification in cement (not for Al) or super compaction for all conditioning, MFOG	Concept  conditioning (LLW operational), MFOG (LLW indevelopment)	N.A.  ILW yes, ILW in development	Radiological and chemical characterization  Only an issue as ILW and when mixed with organic solids
	Uranium/Radium/Thorium bearing	DENMARK		No national classification scheme exists According to Terms for Operation and Decommissioning, lowed by the Regulator, Desons is oblined to follow the classification	Raw	Solid	Not available	Not compiled				Charcterisation in	Yes	MEDIUM (overestimation)	key nuclide method	No.	low	determination of suitable solutions underway	Other (SGF)	conditioning, MFOS	indevelopment)	development NA.	with organic solids  Characterization
	waste  Metalic waste, high concentration	DENMARK	A variety of forms from powders in small lab visit to smaller bits and pieces of speet fuel Components with man specific activity \$62	Dekors is obliged to follow the classification scheme of IAEA GGG-1. Specific waste streams are not linked to the classification scheme LEMY ILW	Raw Raw	Solid Solid	Not available	Not compiled		Small tamples ungacked. Small bits and pieces of spent fuel in specially designed cylindrical containers no packaging (this waste is at the premises of the	N.A.	Charcterisation in progress Ra-226	Yes No	LOW	Kees and one destruction as	yes No	low		Near surface/ Other (possibly	name Super compaction	Concept	NA.	Characterization is a challenge because
2	NORM Objects with plutonium	GREECE	Rg/g 250 metal plates with evaluorated plutonium from Illidi traficking	ILW ILW	Raw	Solid Solid	N.A.		-	at the premises of the research	_	Rs-226 to-238, Po-229, Po- 240, Po-242	No No		spectrometry with MCNP simulations  Possibly special onear sampling and radiochemical analysis to determine the scaling factor and then use of Am-	No No			multi-purposes barehole) Near surface/ Other (possibly multi-purposes barehole)	Super compaction  Not decided	- ancept	NA.	of DTM radionactides  Characterization is a challenge
Solid Waste	Un-irradiated Uranium contaminated watte (Could be present in various watte coheronium)	NORWAY	Drammed and stored Un-irradiated uranium contaminated waste	LLMANER	Raw	Solid	,	7	,	,		anium radioeuclides	,	LOW	Sampling for Bets/Alfa and chemical Characterization; In situ Gamma spectrometry manusaments				Near surface/Other	Drumme#?	7	N.A.	2
Bearing Solid	tradiated Uranium contaminated waste (Could be present in various waste categories)  Ebstenium contaminated solid		Drummed and stored irradiated uranium contaminated waste  Mutanium contaminated solid radioactive	itw	Raw	Solid	,	7	,	y mateliar down containers		(Am241, Pu239, Pu249, Pu241) and listion products Co- 127, Sr 90 etc. 7 228, Pu229, Pu249,	,	LOW	Sampling for Beta/Alfa and chemical Characterization; In situ Gamma spectrometry meouraments Sampling for radiological			Sampling for chemical	Other	Drummed?  Supercompaction and packaging in high innerthy methics frobust month?	7	NA.	) uncartale characterization, uncartain
10 - Alfa B	Plutonium contaminated solid waste	ITALY	Plutonium contaminated solid radioactive waste, generally inserted in FVC or PS bag and drammed in 220/285 litters drums	ILW	Raw	Solid	N.A.	3,216-02	1,125-05	metallic drum containers (220/285 liters)	1,796+13 Po	238, Pu239, Pu249, 241, Pu242, Th232, 225, U238, Am241	Tes	LOW	Sampling for radiological characterization (before re-treatment phase)	NO		Sampling for chemical characterisation (before re- treatment phase) inspections and data collection of the wastes is on poing and determination of suitable solutions	Other	Supencompaction and packaging in high integrity container (insbut contain designed for accurring conditioning without enstrial	Concept  up to 10 % enrichment it is conditioned and stored, from the Wall of Marrier III	N.A. For everything but	uncertain characterization, uncertain classification  Based on radioation dose Fissile material can be classified as low-level waste. Because of proliferation it
a	Non-irradiated fissile materials	NETHERLAND	From experiments	LUW, KLW, HLW (depending on enrichment)		variable, but solid		eorichment> 5%-100% = 0,11 m3	S 5,805+01	Varies, small packages		U,Pu	Yes	нен	Based on Netoric data from producers	No		the wastes is on going and determination of suitable solutions underway	Other (GDF)	Repockaging and storaging	up to 10 % endchment it is conditioned and stored, from 10 % up in course, U operational, Pu containing requires MADOG criticality resessement	For everything but Pu containing watte	Based on ramanismal does Hussle material can be clisistified as love level water. Because of profiferation it requires the highest ecounty standards . Consequently we store non-instituted facilie materials in a building designed for the highest level of does rate. Setting acceptance thresholds for ULW are determined by safeguarding, security and criticality considerations.
	Waste containing fissile material	AND	Experiments	ILW & HLW (depending on earkhment)		under research	under research	small volume?		small packages		Pu, under research	under research	NA.	key nuclide method	No		inspections and data collection of the wastes is on going and determination of suitable solutions underway	Other (GDF)	further characterization	REO	depends on characterization results	are determined by safeguarding, security and critically consideration. The real challenge is determining/genoving how much fissile material ignosess in the waste. Associng fissile material ciotest is complicated by often higher dose 1286.
tive	Waste containing as			No national classification scheme exists. According to Terms for Operation and Decompositionals:						In steel containers (10 m···						-							
T 40	Waste containing reactive metals (such as aluminium, magnesium, zinoanium, Sodium, Beryllium)	DENMARK	The metals are scried out when possible	No national classification scheme exists According to Yerns for Operation and Decommissioning, bused by the Regulator, Delators is obliged to follow the classification scheme of Islik 656-1. Specific water streams are not listed to the classification.	Raw	Solid under research	Not available under research	Not compiled N.A.	Not available	theel, 212 cm x 167 cm x 129 cm) or ISO containers(52°, half height)		Charcterisation in progress	Yes under research	MEDIUM		Yes under research	low	180	Other (DGR) Other (GDF)	nane		NA.	partial characteristion  A cornorion challenge (phemical
1- Read Meta		NETHERLAND	Research and experiments	No national classification scheme exists. According to Terms for Operation and Decommissioning, issued by the Regulator, Dekom is obliged to follow the classification scheme of IASA 656-1. Specific watte streams are not linked to the classification.	Raw, mixed with blasting material (mostly steel)	under research	under research Not available	N.A. Not compiled	N.A. Not available	N.A.  Drums in steel containers (10 mm steel, 212 cm x 147 cm x 129 cm)		under research  Charcterisation in progress	under research Yes	N.A.	N.A. TRO	under research Yes	under research	under research	Other (GDF)	under research	under research	under research	A contoon charege streetical resortation
11 - Reactive Metals	Sodium containing wante	DENMARK	Not fully compiles yet. E.g. paint with PCB		material (mostly steel)		Not available	Not companie 5,106-01	1,525=04	(10 mm steel, 212 on x 147 on x 129 on)) metallic drum (220 liters)		progress W63, Co60, Cx137, Sr90	Yes	LOW	Sampling for radiological characterization (before re-treatment	NO NO	_	Sampling for chemical characterization (before re-treatment phase)	Near Surface	thermal treatment	Concept	NA.	partial characterisation  carcinogenic
			Not fully compiles yet. E.g., paint with PCB from blasting  Asbestos from thermal isolation of SWR dismarting BWR plant	scheme of IAIA 656-1. Specific waste streams are not linked to the classification scheme VLLW/LLW	Raw	Solid			2	2	2	2	) to (neutron calculations	uow	sharri No	No			Near Surface	3 No treatment - Okopeal as it is or	Concept	NA.	Carcinogenic
Material	Sodium containing watte  Watte containing chemitosic materials (beryllium, achestos, lead, PCB)  Asbestos	DENMARK	Asbestos from thermal isolation of EWR dismantling EWR plant	scheme	Raw Drumme© Raw	Solid Solid Solid	Not available	9,006-02	1,606+02	inside the storage pool	Eved, 1,5612	e-SS, NS-63, Co-60, n-S4, H-2, Be-10, NS-	by others, no*	LOW	undistative of a			N.A.	Other (possibly multi-	supercompaction. Packaging in high integrity container (robust rooms)	Concept	NA.	Validation of the neutron calculations
otoxic Material	Sodium containing wante  Wante containing chemissus materials (beryllium, acheeter, lead, PCB)  Asheetes Contaminated Asheetas	DENMARK	Arbestos from thermal isolation of IfWR dissurating IEWR plant Abbestos from thermal isolation?	scheme VLW/LEW LLW	Drummed?	Solid		9,006-02 3,006-02	1,606=02	inside the storage pool	short lived and 6614 H-3	e-55, Ni-63, Co-60, Ni- n-64, Hi-2, Be-92, Ni- 59 65, Ni-63, Co-60, Ag- N 18m, Ag-108m, Cd- 109	by others, not published)	LOW	non-destructive y-spectrometry for validation of the models non-destructive y-spectrometry for validation of the models	No		NA.	Other (possibly multi- purposes borehole) Other (possibly multi- purposes borehole)	2 No treatment - Disposal as it is or superconspection. Packaging in high integrity cataliser (probatic contain designed for assuring conditioning without matrials Super compaction		NA.	Validation of the neutron calculations results.  Validation of the neutron calculations results or representative sampling for radiochemical analyses. Also
Material	Sodium containing water  Water containing the minister majorital Benyllium, substite, leaf, PCBI  Albertits  Contaminated Asherina  Be Macks	DENMARK ITALY NORWAY	Arbestor from thermal isolation of WWI disnateling WWR plant Arbestor from thermal isolation? Chemistoric materials	scheme VLW/LEW LLW	Drummed) Raw	Solid Solid	Not available			-	short lived and 6614 H-3	n-S4, H-3, Be-53, Ni- S9	by others, not published) to (neutron calculations by others, not published) No					N.A.			Concept		Validation of the neutron calculations results or representative sampling for radiochemical analyses. Also conditioning is challensing
. Chemotoxic Material	Sodium containing waste  Water containing the missaic materiols (benyllium, sabestes, best, FCB)  Aubestes  Contaminand Aubestes  Be blocks  Li activated parts of the control node	DENMARK ITALY NORWAY	Adhestos from thermal isolation of BWM disconsiting BWM plane Asbestos from thermal isolation? Charactosic materials Charactosic materials Charactosic materials	ICW LLW/LLW LLW/LLW	Drummed) Eaw Eaw	Solid Solid Solid	Net available	3,086-02	1,106=02	-	Bred, 1,5512 had not lived and 6514 H-3 lived and 4,563 Fe N.A.	n-S4, W-2, Be-03, Ni- 59 65, Ni-62, Co-60, Ag- b 18m, Ag-108m, Cd- 209	by others, not published) to (neutron calculations by others, not published)	LOW	non-destructive y-spectrometry for validation of the models	No		N.A.	Other (possibly multi- purposes borehole)	Super compaction	Concept	NA.	Validation of the season relocations
. Chemotoxic Material	Saftun controlling water with the control for	DENMARK  ITALY  NORWAY  GREECE	Arbestos from thermal indicios of BWR disnasting WKR juint Arbestos from thermal indicios of BWR Arbestos from thermal indicion?  Characteria materials within consists of Ag. in, CA, All and SS Disnifing of the experimental trades and con- in the reacting point	STREAM ALENY LLEWY LLEWY LLEWY LLEWY LLEWY LLEWY 7	Drummed) Eaw Eaw	Solid Solid Solid Solid under research	Net avallable	3,000-02 5,600-01	1,106=02	no packaging  N.A.  steel drum (200 liters)  steel drum (202 liters)	Sued, 1,5512 Market Sued and 6554 M-3 Market Sued and 4,561 M-3 Market Sued and 4,561 Market Sued Annual Mar	0-64, N-3, Re-92, NI-55 59 55, Ni-63, Co-60, Age - 6 209 N.A.  under research  Co60 060, Cx127, Eu552	by others, not published) 60 (neutron calculations by others, not published) No	LOW	non-destructive y-spectrometry for unlimbion of the models. Non-dedructive y-spectrometry, representative sampling for endowhamiral sandouse	No No		N.A.	Other (possibly multi- purposes barehole) Near surtice/ Other (possibly multi-purposes barehole)	Super compaction  No treatment, only conditioning  under research  screen this will form and parkaging in  unstainer minish for transport and	Concept Concept Concept	NA.	Validation of the neutron calculations neutro or representative tampling for radiochemical analyses. Also conditionly is challestfur.
12 - Chemotoxic Material	Soften contailing water Waser contailing of endougle assemble for the contail	DENMARK  ITALY  NORWAY  GREECE  NETHERLAND	Address that the result address of death of the control of the con	MARKET VALIGATION USE  SAW  VALIENT LIMIT FOR TO T  MARKET  LAW  LAW  LAW  LAW  LAW  LAW  LAW  LA	Example Exampl	Solid Solid Solid Solid Solid Under research Liquid, Conductible Liquid, Conductible Liquid	Not authors  -  -  -  -  -  -  -  -  -  -  -  -  -	3,66-92 S,66-93 small small Not available 2,66-90	1,106+02 6,306+03 1,706+02 2,066+02	no packaging  N.A.  steel disum (3500 liters)  steel disum (3500 liters)  cated disum (3400 liters)  steel disum (3400 liters)	beed, 1,5512 hot beet filed and 6514 H-3 heed and 4,555 1 heed and 4,555 1 N.A.  Not available C. 5,155-07 C1	0-54, NJ, Re-32, NI-52, NI-52, NI-52, NI-52, Co-50, Ag - 10m, Cd-10m,	by others, not published)  40 (neutron calculations by others, not published)  No  under research  Yes  Yes	LOW  - N.A.  SOW  SOW	non-destractive y-spectrometry for validation of the models.  Non destructive y-spectrometry, respectations causelying the resident transition of the second of resident transition of the second of the N.A.	No No No No No No		N.A.  N.A.  Inspections and data collection of the waters is on going and determination of unbalan conditions underway  TRD	Other (possibly multi- purposes borenda)  Near surface/ Other (possibly multi-purposes borenda)  Other (660)  Near Surface  Near Surface	Super compaction  No treatment, only conditioning  under research  associated from and publishing or containing to the conditioning containing to transport and distinct containing containining containing containing containing containing containing conta	Concept  Concept  Concept  under research  Concept  Concept  Concept	N.A.  N.A.  under research  N.A.  N.A.	Validation of the neutron calculations menuts or representative temping for individual medical makes and individual medical me
Liquid Waste 12 - Chemotoxic Material	Soften contailing water Waser contailing of enhance water contailing of enhance water (Pa) Advances Contained advances for Water (Pa) Advances Later (Pa) Advances Later (Pa) Advances Later (Pa) Late	DENMARK  ITALY  NORWAY  GRECE  NETHERLAND  CROATIA  ITALY	Advantes from the med sized size of the size of the size of the sized si	NAME OF THE PROPERTY OF THE PR	Ease	Solid Solid Solid Solid Solid  Solid Liquid, Combustible Liquid, Combustible	Nationalatio  under research  Nationalatio  Nationalatio	3,66-62 5,66-61 6nstl enstl Not available	1,106=02 6,306=03 1,706=02 3,106=02	no packaging  N.A.  steel dissen (DAD litera)  diesi dissen (DAD litera)  Contained in small bettler dissend in small bettler dissend in small bettler dissend in size il dissen (DAD litera)	bred, 1,551.2 hotels and 655.8 to 1 hotels bed and 655.8 to 1 hotel bred and 6,552 to 1 hotel bred and 6,552 to 1 hotel bred bred bred bred bred bred bred bred	6-6, w. 2, p. 6-03, w. 6-15  55  55, m. 6-2, Co-60, Ag. 19  55, m. 6-2, Co-60, Ag. 19  529  N.A.  N.A.  Salan, 6-2, Co-60, Ag. 19  S	by others, not published)  60 (neutron calculations by others, not published)  No  under research  Yes	LOW - N.A. LOW LOW	nan-destruction y egent sensity for unidation of the madels. Some described to personality, some described to personality, some described to the some control of th	No No No No	NEGSH	N.A.  N.A.  Inspections and data collection of the water to enjoing and determinate control of the state of t	Other (possibly multi- purposes borehole)  Near surface/ Other (possibly multi-purposes borehole)  Other (GDF)  Near Surface  Near Surface	Super compaction  No treatment, only conditioning  under research  screen this will form and parkaging in  unstainer minish for transport and	Concept Concept Concept Under research Concept Concept	N.A.  N.A.  under research  N.A.  N.A.	Validation of the environ calculations results or representative samples for the control of the control of the control of exception is tool and the high date and therefore a challenge. Objectabley is also in time.  partial characterization partial characterization
12 - Chemotoxic Material	Sealow controlling works  William controlling deviations  William controlling deviations  Ward FOST  Andrews  Controlling deviations  Ward FOST  Andrews  Sea Market  Sea Mark	DENMARK  ITALY  MOREWAY  GRECE  NETHERLAND  CROATIA	Administration for the control adjustment of their Administration for the control adjustment of Administration for their Administration for the control adjustment of their Administration for the control adjustment of their Administration for their Administration for the control adjustment of their Administration for the control adjustment of their Administration for their Administration for the control adjustment of	MARIE	Bounced  Box  Box  Box  Box  Box  Box  Box  Bo	Solid Solid Solid Solid Solid Solid Under research Liquid, Combustible Liquid, Combustible Liquid Liquid	Net walking  under research  Net walking  Net walking  Net walking  Net walking  Net walking	3,66-92 5,66-61 5,66-61 6m38 Not available Not available 2,436-60 3,36-61	1,106=02 6,306=03 1,706=02 3,106=02 3,006=02	no packaging  N.A.  steel dissen (2000 liters)  etsel dissen (2000 liters)  dissend dissen (2000 liters)  2000 liters  (2000 liters)  A literal dissense (2000 liters)  (2000 liters)  (2000 liters)  (2000 liters)	bred, 1,551.2 hotels and 655.8 to 1 hotels bed and 655.8 to 1 hotel bred and 6,552 to 1 hotel bred and 6,552 to 1 hotel bred bred bred bred bred bred bred bred	6-54, NJ, 86-50, NS 59 55, NS-52, Co-60, Agr 19 190n, Ag-108m, Cd- 209 N.A. under research Co60 060, Cs127, Eu552 6, NQ, Cs127, Eu552 6, NQ, Cs127, Eu552 1028, NQ261	by others, not published) 40 (inserton calculations by others, not published) No under research Yes Yes Yes	LOW  - N.A. SOW SOW SOW MEDIAM	non-distinctive populationality for variables and the models.  Non-destination of the models.  Non-destination projectionality, representations anough for populationality or sold and the sold of the	No No No No No No	ман	N.A.  N.A.  Inspections and data collection of the water to enjoing and determinate control of the state of t	Other (possibly multi- purposes borehold)  Near settled, Other (possibly- multi-purposes borehold)  Other (600)  Near Surface  Near Surface  Near Surface  Other	Super compaction  This treatment, only conditioning  under research  convert into sold from and packaging in more conditioning to the conditioning of the conditioning control in the conditioning controlling the conditioning controlling in personal for a more transportable system for in down conditioning controlling conditioning controlling conditioning controlling conditioning controlling conditioning controlling conditioning controlling controlling conditioning controlling controlling conditioning controlling contro	Concept  Concept  Concept  under research  Concept  Concept  Concept  Concept  Concept	N.A.  N.A.  under meanth  N.A.  N.A.  N.A.	Voldation of the execution collections on the execution collection of the execution collection of the execution is track and then being discount of the execution of the executi

N	WASTE STREAM	COUNTRY	CLASSIFICATION	Waste Stream R	adiological Characterization			EXPECTED DISPOSAL FACILITY TYPE
				Total Activity (Bq)	Main Radionuclides	Current packaged volume (m3)	Mass (kg)	(Near Surface/Other)
		CROATIA	LLW/ILW	3,05E+12	Fe55, Co60, Kr85, Sr90, Ir92, Gd153, Kr85, Sr90, Cm247, Ni63,Tl204, Cm247, Ba133, Cd109, Cs137, Pm147, Eu152,154, Ra226, Ra226/Be, Am241/Be	N.A.	N.A.	Near Surface/Other
		DENMARK	No national classification scheme	N.A.	Charcterisation in progress	N.A.	N.A.	Other (DGR)
1	Disused Sealed Radioactive Sources	ITALY	No national classification scheme	1,22E+15	H3, Cs137, Ra226, C14, Co60, U238, Kr85, Cm244, Ni63, Sr90, Am241, Ra226, alpha sources, beta sources	5,11E+02	1,35E+04	Other
	(DSRS)	GREECE	LLW/ILW	7,70E+09	Am241, Ra226, Co60, alpha sources, beta sources,	1,80E+00	N.A.	Other (possibly multi-purposes
		NORWAY	LLW/ILW	Unknown	neutron sources Ra226 or Am241	N.A.	N.A.	borehole) Near Surface/Other
		AUSTRIA	LILW-SL and LL (in case of Am-241 and Ra-226 sources)	24,8E3 GBq (not decay corrected)	Cs-137, Co-60, Am-241, Kr-85, Sr-90, H-3, Ra-226, Pm-147, Ir-192	130 drums	N.A.	To be determined
		CROATIA	LLW/No classification	N.A.	Ra226, Cs137, Bi207, Pb210, Eu152, U238, Th234, Co57, Co60, Am241, mixture	N.A.	3,06E+03	Near Surface
		DENMARK	No national classification scheme	6,00E+12	Charcterisation in progress	ca 5400 drums	Not compiled	Other (DGR)
2	Solid Mixed Waste	ITALY	ILW	4,37E+11	Cs137, U238, Cm244, Eu154, Pu238, Pu241, Sr90 Cs137, Co-60, Ag-108m, Eu-152, Tc-99 etc, Ra-226,	4,38E+01	8,25E+02	Other
2	John Wilken Waste	GREECE	LLW/ ILW	N.A.	Am-241, Th232, Sr-90, deU	2,40E+01	N.A.  Not available before	Near surface/ Other (possibly multi- purposes borehole)
		AUSTRIA	LILW-SL and LL	1,8E3 GBq (not decay corrected)	Sr-90, H-3, C-14, Cs-137, Pu-241, Am-241, Co-60	about 4000 drums	reconditioning	To be determined (Near Surface)
		NETHERLAND CROATIA	LILW	N.A.	Cs-137 Eu152	not yet available Not available	4,80E+02	Other (GDF) Near Surface
		ITALY	VLLW/LLW	2,92E+10	Cs137, Eu154, Sr90, Pu241, C14, H3, U236, U238	1,55E+03	1,84E+06	Near surface
3	Powdery Waste	GREECE	LLW	N.A.	Pu-238, Pu-239, Pu-240, Pu-241	6,00E-01	N.A.	Near surface
	·	NORWAY	ILW (long lived aplha activity concentration expected to be >	Unknown	Unknown ( various radionuclides including Actinides- Pu)	5,48E+01	82200 (dry desity of 1.5 t/m3)	Other
		DENMARK	400 Bq/g) No national classification scheme	N.A.	Charcterisation in progress	N.A.	N.A.	Other (DGR)
		ITALY	VLLW/LLW	1,33E+09	Ni59, Ni63, Co60, Cs137	1,16E+01	5,12E+03	Near surface
		GREECE	VLLW/ LLW	Unknown	Ni63, Co60, Cs137, Ag-108m, Eu-152	2,00E-01	N.A.	Near surface
4	Sludges	NORWAY	LLW/ILW	N.A.	Activation and fission Products e.g. Cs137, Fe55, Co60, Sr90, Uranium, Actinides (Am241, Pu239, Pu240, Pu241)	N.A.	N.A.	Near surface/Other
		AUSTRIA	LILW-SL and LL (in case of alpha	173 GBq (not decay corrected)	Co-60, Cs-137, Th-232, Am-241, Ra-226Eu-154, Ag-	about 3500 drums	360 kg per drum on	To be determined (Near Surface)
		DENMARK	nuclides in the ashes)  No national classification scheme	N.A.	108m Charcterisation in progress	N.A.	average N.A.	Other (DGR)
	Ion Exchange Resins	ITALY	VLLW/LLW/ILW	5,57E+13	Cs137, Fe55, Co60, Sr90, Am241, U238, Pu239,	1,24E+02	1,81E+05	Near surface/Other
5		GREECE	VLLW/LLW	2,50E+08	Pu240, Pu241, Ni59, Ni63 Cs137, Ag-108m, Co60, Eu-152	1,60E+01	1,58E+04	Near surface
J	ion Exchange Resins	NORWAY	LLW/ILW	N.A.	Cs137, Ag-108m, C000, Eu-152 Cs137, Fe55, Co60, Sr90, Am241	N.A.	N.A.	Near surface
		NETHERLAND	ILW & LLW	110.0	Cs-137, Sb-125, Cd-109, Co-60, Sr-90, Ni-63 Fe-55	3,80E+00	1,81E+04	Other (GDF)
		DENMARK	No national classification scheme	N.A.	Charcterisation in progress	N.A.	N.A.	Other (DGR)
6	Solid Organic waste	ITALY	VLLW	2,93E+08	C14, H13, Am241, Co60, Cs137, Eu152, Eu154,	1,85E+01	5,62E+03	Near Surface
		NETHERLAND	LILW	·	Ni63, Pu241 PVC the problem, not the nuclides, which varies	few cubic meters,	,	Other (GDF)
	Liquid Organic Waste	ITALY	VLLW/ LLW/ ILW	2,27E+11	U234, U235, U238, Cs137, Sr90, Ra228, Th228,	9,26E+00	3,86E+03	Near surface/Other
7		NETHERLAND	LLW		Th232, Am241, Pu239, Pu240, Pu241 C-14, Fe-55, H-3,Cl-36, Cd-109, Co-60, Sr-90, Cd-	4,36E+01	4,36E+04	Other (GDF)
		NORWAY	ILW	Unknown	113m, Ni-63, Sb-125, Eu-154 Uranium, actinides (Am241, Pu239, Pu240, Pu241)	3,00E-01	3,00E+02	Other
		DENMARK	As above	Not compiled	and fission products Cs-137, Sr 90 etc. ?  Charcterisation in progress	Not compiled	ca. 19 t	Other (DGR)
		ITALY	ILW	3,00E+14	C14, H3, Co60, Cs137, Cl39, Fe 55	1,61E+03	2,11E+03	Other
8	Graphite	GREECE	VLLW/ LLW/ ILW	4,50E+10	H3, C14, Co60, Cl36, Eu152, Eu154, Fe55	3,80E+00	6,10E+03	Other (possibly multi-purposes borehole)
		NORWAY	ILW	?	C14, H3, Co60, Cs137, Cl39, Fe55	?	?	Near surface/Other
		ITALY	ILW	3,41E+14	Am241, Co60, Cs137, Ni63, Pu238, Pu239, Pu240, Pu241, Sr90	9,00E+01	3,38E+04	Near surface/Other
9	Metals	GREECE	VLLW/ LLW/ ILW	N.A.	Co60, Ni63, Fe55, Cs137, Sr90, Pu238, Pu239,	2,00E+01		Near surface/ Other (possibly multi-
		NETHERLAND	ILW & LLW		Pu240, Pu241 Co-60, Ni-63 Fe-55		-	purposes borehole) Other (GDF)
		DENMARK	No national classification scheme		Charcterisation in progress	Not compiled		Other (DGR)
							N.A.	Near surface/ Other (possibly multi-
		GREECE	LLW/ ILW	N.A.	Ra-226, Pu-238, Pu-239, Pu-240, Pu-242	1,00E+02	IV.A.	purposes borehole)
10	Alfa Bearing Solid	NORWAY	LLW/ILW	N.A.	Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90	1,00E+02 N.A.	N.A.	Near surface/Other
10	Alfa Bearing Solid Waste				Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90 etc. ? Pu238, Pu239, Pu240, Pu241, Pu242, Th232, U235,	·		
10	_	NORWAY	LLW/ILW  ILW  LLW, ILW, HLW (depending on	N.A.	Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90 etc. ? Pu238, Pu239, Pu240, Pu241, Pu242, Th232, U235, U238, Am241	N.A. 3,21E+02 enrichment> 5%-100% =	N.A. 1,12E+05	Near surface/Other Other
10	_	NORWAY  ITALY  NETHERLAND	LLW/ILW  ILW  LLW, ILW, HLW (depending on enrichment)	N.A. 1,79E+13	Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90 etc. ? Pu238, Pu239, Pu240, Pu241, Pu242, Th232, U235, U238, Am241 U,Pu, Under research	N.A. 3,21E+02 enrichment> 5%-100% = 0,18 m3	N.A. 1,12E+05 5,30E+01	Near surface/Other Other Other (GDF)
10	_	NORWAY	LLW/ILW  ILW  LLW, ILW, HLW (depending on	N.A.	Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90 etc. ? Pu238, Pu239, Pu240, Pu241, Pu242, Th232, U235, U238, Am241	N.A. 3,21E+02 enrichment> 5%-100% =	N.A. 1,12E+05	Near surface/Other Other
	Waste	NORWAY  ITALY  NETHERLAND  DENMARK	ILW/ILW  ILW  LLW, ILW, HLW (depending on enrichment)  No national classification scheme	N.A. 1,79E+13	Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90 etc. ? Pu238, Pu239, Pu240, Pu241, Pu242, Th232, U235, U238, Am241 U,Pu, Under research Charcterisation in progress	N.A. 3,21E+02 enrichment> 5%-100% = 0,18 m3 Not compiled	N.A. 1,12E+05 5,30E+01 Not available	Near surface/Other Other Other (GDF) Other (DGR)
	Waste	NORWAY  ITALY  NETHERLAND  DENMARK  NETHERLAND  DENMARK  ITALY	ILW/ILW  ILW, ILW, HLW (depending on enrichment)  No national classification scheme  LILW  No national classification scheme	N.A. 1,79E+13 N.A. N.A. 5,32E+08	Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90 etc. ? Pu238, Pu239, Pu240, Pu241, Pu242, Th232, U235, U238, Am241 U,Pu, Under research Charcterisation in progress under research Charcterisation in progress Ni63, Co60, Cs137, Sr90	N.A.  3,21E+02  enrichment> 5%-100% = 0,18 m3  Not compiled  NA  Not compiled 5,10E+01	N.A.  1,12E+05  5,30E+01  Not available  NA  Not available  1,52E+04	Other Other (GDF) Other (GDF) Other (GDF) Other (DGR) Near Surface
	Waste	NORWAY  ITALY  NETHERLAND  DENMARK  NETHERLAND  DENMARK	ILW/ILW  ILW, ILW, HLW (depending on enrichment)  No national classification scheme  LILW  No national classification scheme	N.A. 1,79E+13 N.A. N.A. 5,32E+08 N.A.	Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90 etc. ? Pu238, Pu239, Pu240, Pu241, Pu242, Th232, U235, U238, Am241 U,Pu, Under research Charcterisation in progress under research Charcterisation in progress Ni63, Co60, Cs137, Sr90 N.A.	N.A.  3,21E+02 enrichment> 5%-100% = 0,18 m3 Not compiled NA Not compiled	N.A. 1,12E+05 5,30E+01 Not available NA Not available	Other Other (GDF) Other (GDF) Other (GDF) Other (DGR) Near Surface Near Surface
11	Waste  Reactive metals	NORWAY  ITALY  NETHERLAND  DENMARK  NETHERLAND  DENMARK  ITALY	ILW/ILW  ILW, ILW, HLW (depending on enrichment)  No national classification scheme  LILW  No national classification scheme	N.A. 1,79E+13 N.A. N.A. 5,32E+08	Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90 etc. ? Pu238, Pu239, Pu240, Pu241, Pu242, Th232, U235, U238, Am241 U,Pu, Under research Charcterisation in progress under research Charcterisation in progress Ni63, Co60, Cs137, Sr90	N.A.  3,21E+02  enrichment> 5%-100% = 0,18 m3  Not compiled  NA  Not compiled 5,10E+01	N.A.  1,12E+05  5,30E+01  Not available  NA  Not available  1,52E+04	Other Other (GDF) Other (GDF) Other (GDF) Other (GDF) Other (DGR) Near Surface
11	Waste  Reactive metals	NORWAY  ITALY  NETHERLAND  DENMARK  NETHERLAND  DENMARK  ITALY  NORWAY  GREECE  NETHERLAND	ILW/ILW  ILW, ILW, HLW (depending on enrichment)  No national classification scheme  LILW  No national classification scheme  VLLW/LLW  LLW  VLLW/LLW !LW ?  HLW	N.A.  1,79E+13  N.A.  N.A.  5,32E+08  N.A.  3e12 long lived, 4,5E13 short lived and 6E14 H-3	Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90 etc. ? Pu238, Pu239, Pu240, Pu241, Pu242, Th232, U235, U238, Am241 U,Pu, Under research Charcterisation in progress under research Charcterisation in progress Ni63, Co60, Cs137, Sr90 N.A. Fe-55, Ni-63, Co-60, Mn-54, H-3, Be-10, Ni-59, Ag110m, Ag108m, Cd109 under research	N.A.  3,21E+02  enrichment> 5%-100% = 0,18 m3  Not compiled  NA  Not compiled  5,10E+01  N.A.  6,80E-01  small	N.A.  1,12E+05  5,30E+01  Not available  NA  Not available  1,52E+04  N.A.  6,57E+03	Near surface/Other  Other  Other (GDF)  Other (DGR)  Other (DGR)  Near Surface  Near Surface  Near Surface  Near surface/Other (possibly multipurposes borehole)  Other (GDF)
11	Waste  Reactive metals	NORWAY  ITALY  NETHERLAND  DENMARK  NETHERLAND  DENMARK  ITALY  NORWAY  GREECE  NETHERLAND  CROATIA	ILW/ILW  ILW, ILW, HLW (depending on enrichment)  No national classification scheme  LILW  No national classification scheme  VLLW/LLW  LLW  VLLW/ LLW/ ILW?  HLW  LLW	N.A.  1,79E+13  N.A.  N.A.  5,32E+08  N.A.  3e12 long lived, 4,5E13 short lived and 6E14 H-3  N.A.	Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90 etc. ? Pu238, Pu239, Pu240, Pu241, Pu242, Th232, U235, U238, Am241 U,Pu, Under research Charcterisation in progress under research Charcterisation in progress Ni63, Co60, Cs137, Sr90 N.A. Fe-55, Ni-63, Co-60, Mn-54, H-3, Be-10, Ni-59, Ag110m, Ag108m, Cd109 under research Co60, Cs137, Eu152	N.A.  3,21E+02 enrichment> 5%-100% = 0,18 m3 Not compiled NA Not compiled 5,10E+01 N.A. 6,80E-01 small N.A.	N.A.  1,12E+05  5,30E+01  Not available  NA  Not available  1,52E+04  N.A.  6,57E+03	Near surface/Other  Other Other (GDF) Other (GDF) Other (DGR) Near Surface Near Surface Near Surface Near surface/Other (possibly multipurposes borehole) Other (GDF) Near Surface
11	Waste  Reactive metals	NORWAY  ITALY  NETHERLAND  DENMARK  NETHERLAND  DENMARK  ITALY  NORWAY  GREECE  NETHERLAND	ILW/ILW  ILW, ILW, HLW (depending on enrichment)  No national classification scheme  LILW  No national classification scheme  VLLW/LLW  LLW  VLLW/LLW !LW ?  HLW	N.A.  1,79E+13  N.A.  N.A.  5,32E+08  N.A.  3e12 long lived, 4,5E13 short lived and 6E14 H-3  N.A.  1,89E+12	Uranium radionuclides, actinides (Am241, Pu239, Pu240, Pu241) and fission products Cs-137, Sr 90 etc. ? Pu238, Pu239, Pu240, Pu241, Pu242, Th232, U235, U238, Am241 U,Pu, Under research Charcterisation in progress under research Charcterisation in progress Ni63, Co60, Cs137, Sr90 N.A. Fe-55, Ni-63, Co-60, Mn-54, H-3, Be-10, Ni-59, Ag110m, Ag108m, Cd109 under research	N.A.  3,21E+02  enrichment> 5%-100% = 0,18 m3  Not compiled  NA  Not compiled  5,10E+01  N.A.  6,80E-01  small	N.A.  1,12E+05  5,30E+01  Not available  NA  Not available  1,52E+04  N.A.  6,57E+03	Other Other Other (GDF) Other (GDF) Other (GDF) Other (DGR) Near Surface Near Surface Near Surface Near Surface Near Surface Near Surface Other (GDF) Other (GDF)