

GDF GSR Planners - Endlager Planer

DBHD - ART-TEL - DBD - ELB - PTH

CIGEO - Ing. Goebel - Dr. Herres



PTH 04 and ELB 03 make GDF possible and SAFE 08 Peace Contract RU-UA-USA KBS 3 welding problems

South Korea - KORADIS ELB 03 in PTH 04 in PTK 01 ART-TEL 2.1 Standort BRD Teltow-Fläming CIGEO 2.1 mit ELB 08 FR

UK GDF by NWS 37 Grad Cigeo 2.0 mit ELB 06 FR Cigeo Peer Review DBD 5227 for small HLW amounts

for COVRA Netherland Salt Peer Review nagra CH Durchlauferhitzer am Rhein Singapore GDF and MMR

ART-TEL 2.0 Niederlausitz Deep Isolation or DBD US GDF Salt Geologies Maglev China Track, Tunnel and Lines

Beishan GDF Lab URL China Surao CZ Gen. 1 GDF Ideas GDF GSR Country List

EU Vertrags-Verletzungs-Verfahren gegen Deutschland aufheben Posiva Oy:tä vastaan nostettu kanne Euroopan unionin tuomioistuimessa

NWMO HLW GDF Canada GDF Brazil RockSalt Geology identified BGE Karten 2026 DE BGE BGR Bröckelton Ulm

Mini-Brücke Rehbecke Hagen Fuhrpark-Brücke Hagen A45 Talbrücke Brunsbecke

FINAL - Cuno Berufsschule mit Sport-Halle auf Westside mit HBF Anschluss Cuno Berufsschule und Berufskolleg auf Varta-Insel

BBZ HA Cuno Berufsschule Ersatzbau Sanierung Bahnhofs-Quartier Eastside Hagen NRW DE 06 Sanierung HBF Hagen Ing

Endlager-Planung Lizenzen-Shop Internationales Schweiz Hagen Impressum -- --

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GDF GSR Country List - by Ingenieurbüro Goebel

we list GDF GSF plans by Ing. Goebel + Dr. Herres - 02.11.2026

Geological Disposal Facilites + Geological Storage Facilities

we also list GDF GSF BY COUNTRY LIST that did not need us

208.866 Mg ! (tons) HLW in EU only - have to find GDF, GSF

>>> World total amount of HLW is 516.044 Mg (tons) >>>

GDF GSF Country List - started by Ing. G[...]
PDF-Dokument [1.6 MB]

Origianl table - edit here

Country	Method	Geology	Temp.	Drill-Tech	Capacity
Germany DE Brandenburg 1.842 € / kg HLW	ART-TEL 2.1 ELB 03 DE PTH 04 DE	Rocksalt flat, thick Brandenb.	48,4 °C max. after 58,6 yrs	TBM D 16,4 AVN 0,7 m ? - 700 m, undeep	19.000 Mg DE spent fuel for sale now and vitrified waste
Germany DE Beverstedt 789 € / kg HLW	DBHD 2.0.1 ELB 03 DE PTH 04 DE	Rocksalt Diapir Beverstedt	126,5 °C max. after 215 yrs	SBR D 12 - 22 m Epiroc D = 0,152 - 1.400 m, deep - 2.518 m, deep - 8.400 m, deep	19.000 Mg DE spent fuel for sale now and vitrified waste
Germany DE Brandenburg 2.274 € / kg HLW	DBD 5227 ELB 03 DE PTH 04 DE	Rocksalt flat, thick Brandenb.	71,5 °C max. after 5,6 yrs	Rotary Drill Rig 20", 16", 12", 8" - 1.000 m, deep - 2.250 m, deep	19.000 Mg DE spent fuel for sale now and vitrified waste 3.600 drills !
~~Germany DE~~ ~~(bei Ulm Psst)~~ ~~3.500 € / kg HLW~~ Cancelled by BGE 27.10.2026	~~BGR BGE~~ ~~Pollux !?~~ ~~5.000 W~~	~~Clayrock 70~~ ~~Sediments 30 %~~ ~~das~~ ~~schmiert !!~~	~~150 °C ??~~ ~~max. after~~ ~~xy yrs~~	~~Drill & Blast~~ ~~-400 m, undeep~~ ~~Dünn-Schichten~~ ~~Geologie, Tote~~	~~19.000 Mg DE~~ ~~spent fuel for~~ ~~sale now and~~ ~~vitrified waste~~ ~~!! WET GDF !!~~
France FR Bure 2.611 € / kg HLW	CIGEO 2.1 ELB 08 FR PTH 09 FR Expensive	Clayrock 50 Sediments 45 % - Bure Muschelkalk	36,3 °C max. after 37 yrs	2x TBM D 14 m 1x SBR D 14 m 12x AVN 0,7 m - 500 m, undeep	18.000 Mg FR vitrified waste 4 % you say W.-Grade Pu ? !! WET GDF !!
England UK ?? 3 km 2 ??	NWS HLW GDF GSR Concrete !? ELB 10 UK SF PTH 11 UK SF ELB 11 UK V PTH 12 UK V	Hardrock 4,31 W 1 Kg ELB SF 56,13 W 20 kg ElB V	xy °C max. after xy yrs	Drill & Blast -1.000 m, deep	5.370 Mg today > 10.000 mg future. m3>kids vitrified waste !! WET GDF !!
Sweden SE	SKB HLW	Hardrock	xy °C	Drill & Blast	8.000 Mg tons

Forsmark 1.0	GDF GSR XXL KBS-3 ELB 05 SE ? PTH 06 SE ?	ELE Warning 2.000 kg Inv. 1.830 Watt 13x critical masses	max. after xy yrs Dr. Herres works on it	- 500 m, undeep Decay waste heat use unit needed > HOT	> 12.000 Mg spent fuel !! WET GDF !! Vattenfall pls !
Sweden SE Forsmark 2.0	SKB HLW GDF GSR ELB 05 SE PTH 06 SE	Hardrock 1 kg Inv. Containers 1,09 W ? ELB	140 °C max. after xy yrs Dr. Herres works on it	Drill & Blast - 500 m, undeep Decay waste heat use unit build in now	12.000 Mg spent fuel !! WET GDF !! 2K sealed monitored
Finland FI Olkiluoto	Posiva HLW GDF GSR **XXL KBS-3** ELB 06 FI ? PTH 07 FI ?	Hardrock ELE Danger **2.000 kg Inv.** **1.830 Watt** **13x critical masses**	xy °C max. after xy yrs Dr. Herres works on it	Drill & Blast - 400 m, undeep Decay waste heat use unit needed > HOT	6.500 Mg tons Final ? spent fuel !! WET GDF !!
Canada CA Wabigoon Ontario	NWMO HLW GDF GSR **XL UFC** ELB 11 CA ? PTH 12 CA ?	Hardrock ELE Warning 920 kg Inv. 1.620 Watt 4x critical masses	xy °C max. after xy yrs Dr. Herres works on it	Drill & Blast - 650 m, - 850 m, multistory GSF ? then good be-cause decay heat use	112.750 Mg spent fuel is not typing error, its un-enriched UOX !! WET GDF !!

Argentina AR

4.600 Mg	CNEA / PNGRR	Avenida del Libertador 8250	C1429BNP Ciudad Autónoma de Buenos Aires	+54 11 4704-1000	Dr. Ing. Germán Guido Lavalle
Regulatory oversight	ARN	Av. del Libertador 8250	C1429BNP Ciudad Autónoma de Buenos Aires	+54 11 5789-7600	Dr. Emiliano Manuel Luaces Rudyj

Armenia AM

245 Mg - 1.890 BE Typ WWER 440	CJSC	4 Tigran Mets Ave	0010 Yerevan	+374 10 541719	Armen Amirjanyan
Regulatory oversight	ANRA	Tigran Mets Str. 4	0010 Yerevan	+374-10-543991	Khachatur Khachikyan

Australia AU	flat salt, thick ?	63 % want NPP	yellow cake from there	
Bangladesh BD	Rooppur NPP started 2026	app. 60 Mg / year		

Belgium BE		**DBD 5227**			
5.625 Mg	Niras / Ondraf	Koning Albert II-laan 32	1000 Brüssel	+32 2 212 10 11	Marc Demarche
Regulatory oversigh	FANK	rue du Marquis 1	1000 Brüsssel	+32 (0)2 289 21 11	Pascale Absil
Belarus BY		BelNPP started 2020	Ostrowez	app. 60 Mg / year	
Brasil BR			**Hardrock ?**	**Salt ?**	
2.854 Mg	CNEN	Rua General Severiano 90	Botafogo, Rio de Janeiro 22290-901	+55 (21) 2586-1180	Francisco Rondinelli Júnior
Regulatory oversight	ANSN	Rua São Clemente, nº 38	Botafogo, Rio de Janeiro 22290-040	+55 (21) 2586-2002	Alessandro Facure Neves de Salles Soares
Bulgaria BG					
1.006 Mg	Seraw	52A G. M. Dimitrov Blvd., fl. 6	1797 Sofia	+359 2 9035 100	Dilyan Petrov
Regulatory oversight	BNRA	69 Shipchenski prokhod Blvd.	1574 Sofia	+359 2 940 68 00	Tsanko Bachiyski
Canada CA		**Wabigoon ?**		**hardrock**	
112.750 Mg	NWMO	22 St. Clair Avenue East	Toronto, Ontario M4T 2S3	+1 416-934-9814	Laurie Swami ?
Regulatory oversight	CNSC	280 Slater Street	Ottawa, ON K1P 5S9	+1 613-995-5894	Pierre Tremblay
China CN		**Beishan**	**far out**	**hardrock FORSMARK 2.0**	**ELE - Warning then good**
83.000 Mg	CNNC	No 1 Nansanxiang, Sanlihe	Xicheng District, 100822 Beijing,	+86 10 6851 2211	Shen Yanfeng
Regulatory oversight	NNSA	No.12, East Chang'an Avenue	100006 Beijing	+86-10-65646114	Dong Baotong
Croatia HR					
463 Mg	NEK	Ulica Vjekoslava Heinzela 70A	10000 Zagreb	+385 (0)1 3090 700	Josip Lebegner Dipl.-Ing.
Regulatory oversight	MUP	Ulica grada Vukovara 33	10000 Zagreb	+385 1 6122 111	Davor Božinović Vice MP
Czech Rep. CZ					
14.500 Mg	Surao	Dlážděná 1004/6	1100 Praha 1	+420 221 421 511	Dr. Lukáš Vondrovic
Regulatory oversight	SÚJB	Senovážné náměstí 9	110 00 Prague 1	+420 221 624 111	Štěpán Kochánek
Denmark DK		**DBD, salt**	**3 XS SRR**	**no NPP, no MMR, no SMR**	
233 kg		DD			

Egypt EG

NPP El Dabaa start 2028

England UK

hardrock

3.690 Mg	NWS	Pelham Drive	Cumbria, CA20 1DB	+44 300 369 0000	Seth Kybird
Regulatory oversight	ONR / EA	Merton Road	Merseyside, L20 7HS	+44 151 951 4000	Mike Finnerty Dr. Nicola Crauford

Finland FI

EuGH Luxemburg

hardrock

6.500 Mg	Posiva Oy	Olkiluoto NPP Site	27160 Eurajoki	+358 2 8372 31	Ilkka Poikolainen
Regulatory oversight	STUK	Jokiniemenkuja 1	01370 Vantaa	+358 9 759 881	Petteri Tiippana

France FR

CIGEO 2.1

COX Clayrock

15.000 Mg + 12.400 FP	Andra	1/7, rue Jean Monnet	92298 Châtenay-Malabry Cedex	+33 1 46 11 80 00	Lydie Evrard
Regulatory oversight	ASNR	15 rue Louis-Lejeune	92120 Montrouge	+33 (0)1 58 35 88 88	Pierre-Marie Abadie

Germany DE

ART-TEL 2.1

Rocksalt

11.000 - 19.000 Mg ?	BGE - hahaha	Eschenstr. 55	31224 Peinelich	+49 5171 43-0	Iris Graffunder ?
Regulatory oversight	BASE - haha	Wegelystraße 8	10623 Berlin	+49 30 184321-0	Christian Kühn ?

Hungary HU

DBD

1.200 Mg	Puram	Puskás Tivadar u. 11	2040 Budaör	+36 75 519 534	Bálint Nős
Regulatory oversight	OHA / HAEA	Fényes Adolf utca 4	H-1036 Budapest	+36 1 436 4800	Andrea Beatrix Kádár

India IN

you have salt

28.643 Mg	BARC	Bhabha Atomic Research Centre	Trombay, 400085 Mumbai	+91-22- 25592000	Shri Vivek Bhasin
Regulatory oversight	AERB	Niyamak Bhavan Anushaktinagar	Mumbai - 400094	+91-22-25990100	Shri A. K. Balasubrahmanian

Iran IR

Italy IT

DBD

smallest amount

1.864 Mg > 15,66 Mg	Sogin S.p.A	Via Marsale 51/C	00185 Rome	+39.06.830401	Lodovico Mazzolin und Stefano Grassi - Duo
Regulatory oversight	ISIN	Via Capitan Bavastro, 116	00154 Roma	+39 06.457652	Francesco Campanella

Japan JP

hardrock

19.000 Mg	Numo	Mita NN Bldg. 2F, 4-1-23 Shiba, Minato-ku	Tokyo 108-0014	+81-3-6371-4000	Akira Yamaguchi
Regulatory oversight	NRA	1-9-9, Roppongi, Minato-ku	Tokio 106-8450	+81-3-3581-3352	Dr. Shinsuke Yamanaka SUGIYAMA Tomoyuki

Kazakhstan KZ

XXL rocksalt — yellow cake from there

300 Mg	NNC	2B Beibyt Atom St	Kurchatov, Abai Region 180010	+7 (722-51) 3-33-33	Gumar Sergazin
Regulatory oversight	ҚР АЭЖА	Mangilik El ave. 57A	010000 Astana	+7 7172 57-13-13	Almassadam Satkaliyev

Lithuania LT

DBD in salt

2.500 Mg	Altra	Elektrinės g. 4 K4 7, Drukšinių k.	31152 Visaginas	+370 386 2898	Linas Baužys
Regulatory oversight	VATESI	A. Goštauto g. 12	LT-01108 Vilnius	+370 5 266 1584	Michail Demčenko

Mexico MX

1.200 Mg	CFE	Av. Paseo de la Reforma 164	06600, Ciudad de México	+52 (55) 5229 4400	Emilia Esther Calleja Alor
Regulatory oversight	SENER	Insurgentes Sur #890, Col. Del Valle Alcaldía Benito Juárez	C.P. 03100, Ciudad de México	+52 55 50006000	Luz Elena González Escobar

Pakistan PK

DBD

1.100 Mg	PAEC	Near K-Block, P.O. Box 1114	Islamabad, Pakistan	+92 51 9209032-37	Dr. Raja Ali Raza Anwar
Regulatory oversight	PNRA	Mauve Area, G-8/1	Islamabad, Pakistan	+92 51 926 3001-6	Zia Hussain Shah

Netherlands NL

DBD 5227 — small amount — or Mini ART-TEL for vitrified waste — or Mini DBHD for vitrified waste

ca. 300 Mg	Covra	Spanjeweg 1	4455 TW Nieuwdorp	+31 113 61 66 6	Harald Schoenmakers
Regulatory oversight	ANVS	Koningskade 4	2596 AA Den Haag	+31 (0)88 489 05 00	Annemiek van Bolhuis Marco Brugmans

Romania RO

3.700 Mg	ANDR	Strada D.I. Mendeleev nr. 21-25, Sector 1	010362 București	+40 21 316 80 01	Mihăiță Găină
Regulatory oversight	CNCAN	Bd. Libertății nr. 14	București, 050706	+40 21 317 38 15	Cantemir CIUREA ERCAU

Russia RU

hardrock — salt — vitrified waste — 2nd burn from BN 800

24.000 Mg > 70.000 Mg	NO RAO	1st Derbenevsky lane, 5, bld.5	115114, Moscow,	+7 (499) 518 88 81	Sergey Deryabin
Regulatory oversight	Rostechnadzor	34, Taganskaya Street	Moscow, 109147	+7 (495) 645-94-82	Alexander Trembizki

South Africa ZA

		hardrock	salt		
1.000 Mg	NRWDI	Building X, Elias Motsoaledi Street Extension (Church Street West) R104, Pelindaba Brits Magisterial District, Madibeng Municipality, North West Province	0240, Südafrika Private Bag X1, Pretoria, 0001, Südafrika	+27 12 305 3222	Riedewaan Bakardien
Regulatory oversight	NNR	Eco Glades Office Park, Eco Glades 2, Block G, Witch Hazel Avenue, Highveld Ext 75, Eco Park, Centurion	Südafrika (Postanschrift: P.O. Box 7106, Centurion, 0046)	+27 (12) 674 7100	Ditebogo Kgomo

South Korea KS

		hardrock	KBS-3 problem		ELE Warning
18.600 Mg	KORAD	19, Chunghyocheon-gi	38062 Gyeongju	+82 54-750-4114	Lee Jin-ho
Regulatory oversight	NSSC	2-13F, KT Gwanghwamun Building West, 178 Sejong-daero, Jongno-gu	Seoul, 03154	+82 2-397-7267	Choi Won-ho

Slovakia SK

3.380 Mg	JAVYS	Jaslovské Bohunice 360	91930 Jaslovské Bohunice	+421 33 531 1111	Miroslav Obert
Regulatory oversight	ÚJD SR	Bajkalská 27	820 07 Bratislava	+421 2 5822 1111	Ing. Marta Žiaková

Slovenia SI

		DBD 5227	Slovenia /Croatia	Deep Isolation Cowboys	
(926 Mg) 436 Mg	ARAO	Litostrojska cesta 58A	1000 Ljubljana	+386 1 236 32 00	Sandi Viršek
Regulatory oversight	SNSA	Litostrojska cesta 54	1000 Ljubljana	+386 1 472 11 00	Igor Sirc

Spain ES

		DBD 5227		Deep Isolation Cowboys	
6.000 Mg	Enresa S.A.	C/ Emilio Vargas nº 7	28043 Madrid	+34 91 566 81 00	Olga Garcia
Regulatory oversight	CSN	C/ Pedro Justo Dorado Dellmans, 11	28040 Madrid	+34 91 346 01 00	Juan Carlos Lentijo

Sweden SE

		Forsmark 2.0		hardrock	
12.000 Mg	SKB	Evenemangsgatan 13	SE-169 79 Solna	+46 (0)8-459 84 00	Stefan Engdahl
Regulatory oversight	SSM	Solna strandväg 96	171 54 Solna	+46 8 799 40 00	Michael Knochenhauer

Switzerland CH

		ART-TEL 2.1	CIGEO 2.1	FORSMARK 2.0	NOT Weinland ZH
4.100 Mg	nagra	Hardstrasse 73	5430 Wettingen	+41 56 437 11 11	Matthias Braun
Regulatory oversight	ENSI	Industriestrasse 19	5201 Brugg	+41 56 460 84 00	Dr. Marc Kenzelmann Biologe, Virologe

Taiwan TW

		no geology ?	no GDF plan ?	no project office ?	buy from Ing. Goebel
3.869 Mg	NSC	2F., No. 80, Sec. 1, Chenggong Rd., Yonghe Dist	New Taipei City 234036	+886-2-8231-7919	Chen, Min-Jen
Regulatory oversight	NSC	2F.-8F., No. 80, Sec. 1, Chenggong Rd., Yonghe	New Taipei City 234036	+886-2-8231-7919	Chen, Min-Jen

		Dist			
Turkey TR	Akkuyu start 2026	**DBD ?**	**Forsmark 2.0 ?**		
6.750 Mg (50 Years)	TENMAK	Mustafa Kemal Mahallesi, Dumlupınar Blv. No:192	06510 Çankaya/Ankara	+90 312 295 8700	Dr. Abdullah Buğrahan Karaveli
Regulatory oversight	NDK	Devlet Mahallesi, 85. Cadde No: 5	06420 Çankaya / Ankara	+90 (312) 289 93 00	Dr. İsmail Hakkı Arıkan
UAE AE		**DBD ?**	**Forsmark 2.0 ?**		
4.500 Mg (50 years)	ENEC	Zone SE45 Masdar City - Enec and Nawah Headquarters - near my city centre Masdar shopping mall	20015 Abu Dhabi, Vereinigte Arabische Emirate	+971 2 313 0555	Mohamed Ibrahim Al Hammadi
Regulatory oversight	FANR	Federal Authority for Nuclear Regulation (FANR), P.O. Box 112021 The Landmark Tower Abu Dhabi Corniche Bereich Al Markaziyah West - Al Hisn Street	Abu Dhabi, Vereinigte Arabische Emirate	+971 2 651 6666	Hamad Ali Mohammed Al Kaabi
United States US **ELB 07 US** **PTH 08 US**		**DBD 5227, ART-TEL 2.1, DBHD 2.0.1, CIGEO 2.1 and FORSMARK 2.0**	56 Bio USD on GDF accounts - but no will to build a GDF at all - But they have WIPP	**Deep Isolation needs to buy ELB 07 in PTH 08 GDF Containers**	In terms of GDF the US is a thirld world country with HLW on staff parkings
104.000 Mg	Operator NRC ?	no GDF company no adress	no GDF company no town	no GDF company no telephone number	no GDF company no company CEO
Regulatory oversight	DOE / NRC / EPA	1000 Independence Ave., SW	Washington, DC 20585	+1 202-586-7709	Timothy J. Walsh
Ukraine UA		**DBD ?**		**FORSMARK 2.0 ?**	
7.000 Mg	SSE CERWM	52 Kirova St 34 Lesi Ukrainky Blvd	Kyiv Region, 07270 Kyiv, 01133	+380 50 321 03 50	Ihor Jakowytsch Rybatschenko
Regulatory oversight	SNRIU	Arsenalna Str. 9/1	Kiew, 01011	+380 (44) 277-12-02	Oleh Korikow

GDF GSF Country List - started by Ing. G[...]
PDF-Dokument [1.6 MB]

Tabellenmäßige Angaben der kritischen Massen verschiedener Nuklide beziehen sich in der Regel auf eine homogene unkomprimierte Kugel aus dem reinen Material ohne Reflektor. In folgender Liste sind diese mit der reflektierten und unreflektierten kritischen Masse für schnelle unmoderierte Systeme zusammengefasst. Wenn nicht anders vermerkt, stammen die Daten aus einer Zusammenstellung des französischen IRSN.[1]

Niemand kann genau sagen welche Spaltstoffe in welcher Menge im DE spent fuel und in den Kokillen ist
Diese aktivierte Metall gibt eine starke Strahlung ab und kann nicht wirklich aussagekräftig untersucht werden
Aus Vorsorge-Gründen (defensiver Sicherheitsansatz - setzt Ing. Goebel nur 1 kg als Behälter Inventar an.)

https://de.wikipedia.org/wiki/Kritische_Masse

Nuklid	Kritische Masse			Quelle
	unreflektiert (kg)	reflektiert (20 cm H_2O) (kg)	reflektiert (30 cm Stahl) (kg)	
^{229}Thorium	2839	2262	994	
^{231}Protactinium	580–930 ?	?	?	
^{233}Uran	16,5	7,3	6,1	[2]
^{234}Uran	145	134	83	
^{235}Uran	49,0	22,8	17,2	[3]
^{235}Neptunium	66,2	60	38,8	
^{236}Neptunium	6,79	3,21	3,3	
^{237}Neptunium	63,6–68,6	57,5–64,6	38,6	[4]
^{236}Plutonium	8,04–8,42	5,0	3,74–4,01	
^{237}Plutonium	3,1	1,71	1,62	
^{238}Plutonium	9,04–10,31	7,35	4,7	[5]
^{239}Plutonium	10,0	5,42–5,45	4,49	[2]
^{240}Plutonium	35,7–39,03	32,1–34,95	18,3–22,6	
^{241}Plutonium	12,27–13,04	5,87–6,68	5,05–5,49	
^{242}Plutonium	85,6	78,2	36,2–48,1	
^{241}Americium	57,6–75,6	52,5–67,6	33,8–44,0	
^{242m}Americium	9–18	3,2–6,4	3–4,6	[4]
^{243}Americium	50–209	195	88–138	[4]
^{242}Curium	24,8–371	17–260	7–231	
^{243}Curium	7,4–8,4	2,8	2,8–3,1	
^{244}Curium	23,2–33,1	22,0–27,1	13,2–16,81	
^{245}Curium	6,7–12	2,6–3,1	2,7–3,5	[6]
^{246}Curium	38,9–70	33,6	22–23,2	[6]
^{247}Curium	7	3,5	2,8–3,0	[6]
^{248}Curium	40,4	34,7	21,5	
^{250}Curium	23,5	21,4	14,7	

^{247}Berkelium	75,7	41,2	35,2	
^{249}Berkelium	192	179	131	
^{249}Californium	5,91	2,28	2,39	
^{250}Californium	6,55	5,61	3,13	
^{251}Californium	5,46–9	2,45	2,27	[7]
^{252}Californium	5,87	2,91	3,32	
^{254}Californium	4,27	2,86	2,25	
^{254}Einsteinium	9,89	2,26	2,9	



This GDF Container Bundle answers most GDF GSF questions.

Eternally undercritical under GDF GSF pressure and heat,

distributes decay heat, shielded and with 300 EUR payable.

You all need ELB in PTH - all too big Container ideas go out.

https://www.ing-goebel.de/gdf-gsr-country-list/

Alle Entsorgungs-Gesellschaften ww unterschätzen den Wärme-Stau von HLW Behältern in der Geologie !!- Gesteine sind schlechte Wärme-Leiter.

Mitarbeiter eines Bergwerkes erwarten zu Recht 16 °C Temperatur !

Oberirdisch sind grosse HLW Behälter die beste Wahl - weil effizient.

Unterirdisch sind nur 1 kg HLW Behälter nachweisbar unterkritisch und die brauchen dicke Wandungen, um nicht aufgequetscht zu werden.

Alle Mitarbeiter staatl. Entsorgungs-Gesellschaften haben nur 1 Ziel.

Die Versorgung Ihrer Ur-Ur-Enkel sicherzustellen - Von Entsorgungs-Gesellschaften in staatlicher Hand können Sie NICHTS erwarten !!!

Deren gesamtes Nicht technisches Personal ist überzählig / sinnlos.

Endlager ist eine Material-Schlacht - auf Basis von "Annahmen und Berechnungen" - Der Preis für nukleare Langzeit-Sicherheit ist hoch.

Nasse Endlager !!! sind sehr sehr viel TEURER als trockene Endlager.

Alle untiefen Endlager sind IMMER so nass wie alle alten Bergwerke.

Die nuklearen Aufsichts-Behörden ? verdienen nicht einmal diesen Namen - weil die selber keine Endlager planen wissen die NICHTS darüber - "Endlager sind immer Bauwerke mit einer Architektur."

Die Endlager-Planer sind Teil der Nuklear Industrie, und erstellen

das notwendige Back-End der notwendigen Kernenergie. Es gibt nicht nur Endlager sondern auch - Geologische Storage Facilities.

Alle Länder ausser Kanada (Candu) sollen bitte Wiederaufarbeitung machen - Es ist besser das Spent Fuel zu verkaufen als zu beerdigen. Ing. Goebel und Team beraten alle Länder zu GDF GSF Bauwerken.

Die Umwelt-Minister werden ständig ausgetauscht - müssen sich um das ganze Klima-Geschrei kümmern, und wissen in aller Regel so gar NICHTS zu Thema Endlagerung. SPD Staatssekretäre sind PROBLEME. Ein gelernter Krankenpfleger tut ? in Deutschland Atom-Aufsicht !?

Innerhalb der EU ist die nukleare Endlagerung im Euratom Gesetz 2011/ 70 geregelt - Das EU Gesetz fragt nach Methoden, und nicht nach Standorten - Die USA sind ein dummes 3 te Welt, Land in dem schlechteste Behälter auf Mitarbeiter Parkplätzen im Regen stehen.

Ein Einziges schlecht geplantes und gebautes Endlager genügt, um das Ende aller Organismen auf der Erde zu sein - Exstinction Level Event Danger. **1 schlechtes Endlager ist das Ende der Menschheit.**

Plansatz Bauantrag CIGEO 2.1 - 30 m -36,[...]
PDF-Dokument [17.6 MB]

ART-TEL_2.1_HLW_Endlager_Plansatz_Bauant[...]
PDF-Dokument [5.0 MB]

Forsmark 2.0_HLW_Endlager_System-Skizze.[...]
PDF-Dokument [42.0 MB]

All waste management companies underestimate the heat buildup in / around HLW containers within geological formations!!—Rock is a poor conductor of heat.

Mine workers rightly expect a temperature of 16°C !

Above ground, large HLW containers are the best choice—because they are efficient.
Underground, only 1 kg HLW containers are demonstrably subcritical, and
they require thick walls to avoid being crushed.

All employees of state-run waste management companies have only one goal:
Securing financial future of their great-great-grandchildren. You can expect
NOTHING from state-owned waste management companies !!!
Their entire non-technical staff is superfluous/useless.

A final repository is a massive undertaking involving vast quantities of materials
based on "assumptions and calculations"—and the price of long-term nuclear safety is high.
Wet repositories!!! are far, far more EXPENSIVE than dry repositories.
All shallow repositories are ALWAYS as wet as any old mine.

Nuclear regulatory authorities? They do not even deserve that name
because they do not plan repositories themselves, they know NOTHING
about them—"Repositories are always BUILDINGS with a specific architecture."

Repository planners are part of the nuclear industry and plan
the necessary back-end for essential nuclear energy. There are
not only final repositories but also geological storage facilities.

All countries except Canada (Candu) should please engage in reprocessing
it is better to sell spent fuel than to bury it.
Engineer Goebel and his team advise countries on GDF and GSF buildings.

Environment ministers are constantly being swapped out—they have to deal
with all the climate hysteria, yet as a rule, they know absolutely NOTHING
about the subject of final disposal. SPD state secretaries are the PROBLEM.
A trained male nurse handling nuclear oversight in Germany !?

Within the EU, nuclear waste disposal is regulated by Euratom Directive 2011/70—the EU law focuses on methods, but not, not with a single word on specific sites — the USA is a greedy, stupid Third World country where substandard containers sit out in the rain in employee parking lots.

A single poorly planned and constructed geological disposal site is enough to spell the end for all organisms on Earth — an extinction-level event. **"One bad disposal site means the end of humanity."**

01.10.2026 - HLW GDF Planning for Germany - lets sell all the spend fuel to France !

Country	Method	Geology	Temp.	Drill-Tech	Capacity
Germany DE Brandenburg 1.842 € / kg HLW	**ART-TEL 2.1** ELB 03 DE PTH 04 DE	Rocksalt flat, thick Brandenb.	48,4 °C max. after 58,6 yrs	TBM D 16,4 AVN 0,7 m ? - 700 m, undeep	19.000 Mg DE spent fuel and vitrified waste
Germany DE Beverstedt 789 € / kg HLW	**DBHD 2.0.1** ELB 03 DE PTH 04 DE	Rocksalt Diapir Beverstedt	126,5 °C max. after 215 yrs	SBR D 12 - 22 m Epiroc D = 0,152 - 1.400 m, deep - 2.518 m, deep - 8.400 m, deep	19.000 Mg DE spent fuel and vitrified waste
Germany DE Brandenburg 2.274 € / kg HLW	**DBD 5227** ELB 03 DE PTH 04 DE	Rocksalt flat, thick Brandenb.	71,5 °C max. after 5,6 yrs	Rotary Drill Rig 20", 16", 12", **8"** - 1.000 m, deep - 2.250 m, deep	19.000 Mg DE spent fuel and vitrified waste 3.600 drills !
Germany DE (bei Ulm Psst) 3.500 € / kg HLW	**BGR BGE** Pollux !? **5.000 W**	Clayrock 70 Sediments 30 % das schmiert !!	**150 °C ??** max. after xy yrs	Drill & Blast -400 m, undeep Dünn-Schichten Geologie, Tote	19.000 Mg DE spent fuel and vitrified waste **!! WET GDF !!**
France FR Bure 2.611 € / kg HLW	CIGEO 2.1 ELB 08 FR PTH 09 FR Expensive	Clayrock 50 Sediments 45 % - Bure Muschelkalk	36,3 °C max. after 37 yrs	2x TBM D 14 m 1x SBR D 14 m 12x AVN 0,7 m - 500 m, **undeep**	18.000 Mg FR vitrified waste W.-Grade Pu ? **!! WET GDF !!**

Volker Goebel / Dipl.-Ing. / Tel +49 157 546 624 34 DE / info@ing-goebel.com / archi.goebel@gmail.com - Konnte am 08.03.2025 und 14.04.2025 nach 14 Jahren !!! eine vollständige Endlager-Planung nachweisen.