



**Country Waste Profile Report for  
GERMANY  
Reporting Year: 2005**

*For guidance on reading Country Waste Profile Reports,  
please refer to the following internet based document:*

*<http://www-newmdb.iaea.org/help/profiles9/guide.pdf>*

*For further information, please contact the Responsible Officer via e-mail:  
NEWMDB@IAEA.org*

## Waste Classification Schemes

Country: GERMANY

Reporting Year: 2005

Waste Class Matrix: **IAEA Def.**

This country does use the IAEA Scheme: No

Description: The Agency's standard matrix

Waste Class Name	Distribution %		
	LILW-SL	LILW-LL	HLW
LILW-SL	100.0	0.0	0.0
LILW-LL	0.0	100.0	0.0
HLW	0.0	0.0	100.0

Waste Class Matrix: **GER**

Description: NHGW = negligible heat generating waste  
 HGW = heat-generating waste  
 The percentages in the matrix are based upon waste characteristics including radionuclide inventory and estimated annual arisings provided by the waste generators (Internal BfS-report ET-IB-52). The characteristics were compared with the limits for long lived nuclides and heat generation specified for the IAEA's waste classification scheme.

Waste Class Name	Distribution %		
	LILW-SL	LILW-LL	HLW
NHGW	90.0	10.0	0.0
HGW	0.0	0.0	100.0

Comment **# 255: waste-classification**

According to repository-relevant aspects all radioactive waste produced is basically classified in waste with negligible heat generation (NHGW) and heat-generating waste (HGW). NHGW is defined in the "guideline concerning the controlling of radioactive waste with negligible heat generation that do not have to be delivered to a federal state collecting depot" [1] as waste to be disposed of in the planned Konrad repository. I.e. the radionuclide inventory of NHGW is limited by the Konrad waste acceptance requirements [2]. Radioactive waste exceeding these limits (i.e. spent fuel and radioactive waste from reprocessing of spent fuel) is considered HGW.

[1] "Bekanntmachung der Richtlinie zur Kontrolle radioaktiver Abfälle mit vernachlässigbarer Wärmeentwicklung, die nicht an eine Landessammelstelle abgeliefert werden vom 16. Januar 1989", Bundesanzeiger 41 (1989) no. 63a, p. 1-12

[2] P. Brennecke, "Anforderungen an endzulagernde radioaktive Abfälle (Endlagerungsbedingungen, Stand: Dezember 1995) - Schachtanlage Konrad -", Interner BfS-Bericht ET-IB-79, Bundesamt für Strahlenschutz, Salzgitter (1995)

---

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

## Waste Classification Schemes

Country: GERMANY

Reporting Year: 2005

This country uses the following definitions:

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

Comment **# 12227: Definitions for Unprocessed Waste and Processed W**

Germany usually uses the term "conditioned " for waste that needs no more physical or chemical treatment for disposal.

## Groups Overview

Country: GERMANY

Reporting Year: 2005

<b>Reporting Group:</b>	<b>BfS</b>
Inventory Reporting Date:	December 2005
Waste Matrix Used:	GER
Description:	

Site Name	Facility Name	Facilities Defined		
National	ERAM			disposal
	FZJ	processing		
	FZJ		storage	
	FZK	processing		
	FZK		storage	
	GNS-DU	processing		
	Gorleben			disposal
	GorlebenSt		storage	
	GRB		storage	
	Industry		storage	
	KKU		storage	
	Konrad			disposal
	LSSt		storage	
	NPP		storage	
	Nukem		storage	
	Other		storage	
	Research		storage	
	Siemens		storage	
	VKTA		storage	
	ZLN		storage	
	ZLN	processing		

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

Full Name: National is a "theoretical site" that includes some individual existing sites as well as sites grouped to facilitate reporting. There are various locations and license holders.

Location:

Description:

Official Website:

License Holder(s):

Comment **# 324: Processing Facilities**

In addition to the stationary waste processing facilities there are several mobile waste processing facilities available which can be transported and operated at the waste generator's site.

Comment **# 325: Operating Life of Storage Facilities**

Radioactive waste has to be stored until a final repository is available. The intended start of operation of a German repository for radioactive waste is approximately in the year 2030. The estimated Operating Life of the storage facilities is the time from facility construction to 2030.

Comment **# 326: LSSt**

The Federal States Collecting Depots combined in this group are:

Landessammelstelle Baden-Württemberg,  
Landessammelstelle Bayern,  
Landessammelstelle Berlin,  
Landessammelstelle Hessen,  
Landessammelstelle Niedersachsen,  
Landessammelstelle Nordrhein-Westfalen,  
Landessammelstelle Rheinland-Pfalz,  
Landessammelstelle Saarland,  
Landessammelstelle Sachsen,  
Landessammelstelle Schleswig-Holstein,  
Vorläufige Verwahrstelle Brandenburg

Comment **# 327: Industry**

The Nuclear Industry combined in this group are:

Advanced Nuclear Fuels GmbH,  
Siemens AG - Unternehmensbereich Kraftwerk Union,  
Urenco GmbH Gronau,  
Urenco GmbH Jülich.

Nukem and Siemens Brennelementewerk Hanau/MOX are listed as separate facilities.

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

## Comment # 328: NPP

The Nuclear Power Plants combined in this group are:

Kernkraftwerk Biblis A und B,  
 Kernkraftwerk Brokdorf,  
 Kernkraftwerk Brunsbüttel,  
 Kernkraftwerk Emsland,  
 Kernkraftwerk Grafenrheinfeld,  
 Kernkraftwerk Grohnde,  
 Kernkraftwerk Gundremmingen Blöcke B und C,  
 Kernkraftwerk Isar 1,  
 Kernkraftwerk Isar 2,  
 Kernkraftwerk Krümmel,  
 Kernkraftwerk Mülheim-Kärlich,  
 Kernkraftwerk Neckarwestheim Blöcke 1 und 2,  
 Kernkraftwerk Obrigheim,  
 Kernkraftwerk Philippsburg Blöcke 1 und 2,  
 Kernkraftwerk Stade,  
 Kernkraftwerk Unterweser,  
 Kernkraftwerk Greifswald,  
 Kernkraftwerk Gundremmingen Block A,  
 Kernkraftwerk Hamm-Uentrop,  
 Kernkraftwerk Jülich,  
 Kernkraftwerk Lingen,  
 Kernkraftwerk Rheinsberg,  
 Kernkraftwerk Würgassen,  
 Kernkraftwerk-Betriebsgesellschaft KNK,  
 Kernkraftwerk-Betriebsgesellschaft MZFR,  
 Versuchsatomkraftwerk Kahl VAK

## Comment # 329: Research

The Research Institutes combined in this group are:

Europäisches Institut für Transurane,  
 Forschungs-und Meßreaktor Braunschweig,  
 Forschungsreaktor Garching,  
 Forschungszentrum Geesthacht GmbH,  
 Hahn-Meitner-Institut Berlin GmbH,  
 Institut für Radiochemie.

Forschungszentrum Jülich GmbH,  
 Forschungszentrum Karlsruhe GmbH and  
 VKT Rossendorf are listed as separate facilities.

## Comment # 330: Other

Waste Generators combined in this group are:

Bundeswehr,  
 AEAT Lehse

## Comment # 331: HGW

Only liquid High Active Concentrate (as "unprocessed") and vitrified High Active Concentrate (as "processed") is included.  
 Spent fuel and core scrap from light-water-reactors is not included.

## Comment # 332: Reprocessing abroad

Spent fuel from German NPPs was/is shipped to France and Great Britain for reprocessing. The waste products will be reported when they are returned to Germany.

## Comment # 333: Decommissioning waste

Decommissioning waste is reported together with operational waste of the respective origin

Waste management facilities that are located at this site:

<b>Facility:</b>	<b>ERAM</b>
<b>Description:</b>	Repository for radioactive waste Morsleben

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

**Disposal part of facility**                      **ERAM**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
NHGW	Yes	No
HGW	No	No

List SRS?	No
List UMMT?	No

Type:	geological (cavern)		
Facility is modular?	No		
Capacity existing (m3):	55000	Capacity planned (m3):	55000

Depth (m):	500	Host medium:	salt dome
------------	-----	--------------	-----------

Phase Name	Start Year	End Year	Estimate
planning and/or concept assessment	1967	1970	False
site selection	1967	1970	False
design	1970	1983	False
construction	1970	1983	False
commissioning	1970	1986	False
operation	1971	1998	False
closure	2008	2022	False

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>FZJ</b>									
<b>Description:</b>	Research Center Juelich									
<b>Processing part of facility</b>										
The following shows processing status for waste classes and SRS.										
<table border="1"><thead><tr><th>Waste Class</th><th>Actual</th><th>Planned</th></tr></thead><tbody><tr><td>NHGW</td><td>No</td><td>No</td></tr><tr><td>HGW</td><td>No</td><td>No</td></tr></tbody></table>	Waste Class	Actual	Planned	NHGW	No	No	HGW	No	No	
Waste Class	Actual	Planned								
NHGW	No	No								
HGW	No	No								
<b>Type:</b>										
<b>Year opened:</b>										



## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	FZJ		
<b>Description:</b>	Storage facility in the research center Juelich		
<b>Storage part of facility</b>			
The following shows storage status for waste classes and SRS.			
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>	
NHGW	No	No	
HGW	No	No	
<b>List SRS?</b>	#Error		
<b>List UMMT?</b>	#Error		
<b>Capacity:</b>			

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	FZK		
<b>Description:</b>	Research Center Karlsruhe		
<b>Processing part of facility</b>			
The following shows processing status for waste classes and SRS.			
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>	
NHGW	No	No	
HGW	No	No	
<b>Type:</b>			
<b>Year opened:</b>			

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	FZK									
<b>Description:</b>	Storage facility in the research center Karlsruhe									
<b>Storage part of facility</b>										
The following shows storage status for waste classes and SRS.										
<table border="1"><thead><tr><th>Waste Class</th><th>Actual</th><th>Planned</th></tr></thead><tbody><tr><td>NHGW</td><td>No</td><td>No</td></tr><tr><td>HGW</td><td>No</td><td>No</td></tr></tbody></table>	Waste Class	Actual	Planned	NHGW	No	No	HGW	No	No	
Waste Class	Actual	Planned								
NHGW	No	No								
HGW	No	No								
<b>List SRS?</b>	#Error									
<b>List UMMT?</b>	#Error									
<b>Capacity:</b>										

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>GNS-DU</b>									
<b>Description:</b>	GNS processing facility for radioactive waste in Duisburg									
<b>Processing part of facility</b>										
The following shows processing status for waste classes and SRS.										
<table border="1"><thead><tr><th>Waste Class</th><th>Actual</th><th>Planned</th></tr></thead><tbody><tr><td>NHGW</td><td>No</td><td>No</td></tr><tr><td>HGW</td><td>No</td><td>No</td></tr></tbody></table>	Waste Class	Actual	Planned	NHGW	No	No	HGW	No	No	
Waste Class	Actual	Planned								
NHGW	No	No								
HGW	No	No								
<b>Type:</b>										
<b>Year opened:</b>										

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>Gorleben</b>
<b>Description:</b>	Gorleben salt dome; since 2000 interruption of investigations for 3 to 10 years

**Disposal part of facility Gorleben**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
NHGW	No	Yes
HGW	No	Yes

List SRS?	No
List UMMT?	No

Type:	geological (cavern)		
Facility is modular?	Yes		
Capacity existing (m3):	0	Capacity planned (m3):	400000

Depth (m):	900	Host medium:	salt dome
------------	-----	--------------	-----------

Phase Name	Start Year	End Year	Estimate
planning and/or concept assessment	1979	2000	False
site selection	1977	1977	False

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>GorlebenSt</b>
<b>Description:</b>	Storage facility for NHGW (ALG) and HGW (TBLG) in Gorleben

**Storage part of facility**                      **GorlebenSt**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
NHGW	Yes	Yes
HGW	Yes	Yes

<b>List SRS?</b>	No
<b>List UMMT?</b>	No

<b>Capacity:</b>	Up to a total activity of 5E+18 Bq (ALG) and 2E+20 Bq (TBLG)
------------------	--

## Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
ALG	building	1984	No	No	No	No
TBLG	building	1995	No	No	No	No

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>GRB</b>									
Description:	Storage facility in Mitterteich									
<b>Storage part of facility</b>										
The following shows storage status for waste classes and SRS.										
<table border="1"><thead><tr><th>Waste Class</th><th>Actual</th><th>Planned</th></tr></thead><tbody><tr><td>NHGW</td><td>No</td><td>No</td></tr><tr><td>HGW</td><td>No</td><td>No</td></tr></tbody></table>	Waste Class	Actual	Planned	NHGW	No	No	HGW	No	No	
Waste Class	Actual	Planned								
NHGW	No	No								
HGW	No	No								
List SRS?	#Error									
List UMMT?	#Error									
Capacity:										

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>Industry</b>		
Description:	Nuclear Industry		
<b>Storage part of facility</b>			
The following shows storage status for waste classes and SRS.			
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>	
NHGW	No	No	
HGW	No	No	
List SRS?	#Error		
List UMMT?	#Error		
Capacity:			
Comment	<b># 7563: year opened information</b>		
Group of storage facilities, differing years of opening			



## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	KKU		
<b>Description:</b>	Storage facility for NHGW from the NPPs Stade and Unterweser		
<b>Storage part of facility</b>			
The following shows storage status for waste classes and SRS.			
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>	
NHGW	No	No	
HGW	No	No	
<b>List SRS?</b>	#Error		
<b>List UMMT?</b>	#Error		
<b>Capacity:</b>			

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>Konrad</b>
<b>Description:</b>	Planned repository for NHGW Konrad

**Disposal part of facility Konrad**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
NHGW	No	Yes
HGW	No	No

List SRS?	No
List UMMT?	No

Type:	geological (cavern)		
Facility is modular?	Yes		
Capacity existing (m3):	0	Capacity planned (m3):	650000

Depth (m):	800 - 1300	Host medium:	sedimentary (other)
------------	------------	--------------	---------------------

Phase Name	Start Year	End Year	Estimate
planning and/or concept assessment	1976	1982	False
site selection	1975	1975	False
design	1982	1990	False

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	LSSt		
<b>Description:</b>	Federal States Collecting Depots		
<b>Storage part of facility</b>			
The following shows storage status for waste classes and SRS.			
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>	
NHGW	No	No	
HGW	No	No	
<b>List SRS?</b>	#Error		
<b>List UMMT?</b>	#Error		
<b>Capacity:</b>			
<b>Comment</b>	# 7561: year opened information		
Group of storage facilities, differing years of opening			

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>NPP</b>		
<b>Description:</b>	Storage at Nuclear Power Plants		
<b>Storage part of facility</b>			
The following shows storage status for waste classes and SRS.			
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>	
NHGW	No	No	
HGW	No	No	
<b>List SRS?</b>	#Error		
<b>List UMMT?</b>	#Error		
<b>Capacity:</b>			
<b>Comment</b>	<b># 7564: year opened information</b>		
Group of storage facilities, differing years of opening			

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>Nukem</b>		
<b>Description:</b>	Nukem storage facility in Hanau		
<b>Storage part of facility</b>			
The following shows storage status for waste classes and SRS.			
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>	
NHGW	No	No	
HGW	No	No	
<b>List SRS?</b>	#Error		
<b>List UMMT?</b>	#Error		
<b>Capacity:</b>			
<b>Comment</b>	<b># 7559: year opened information</b>		
	License for decommissioning 19th october 2000		

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>Other</b>					
Description:	Other waste generators					
<b>Storage part of facility</b>		<b>Other</b>				
The following shows storage status for waste classes and SRS.						
Waste Class	Actual	Planned				
NHGW	Yes	Yes				
HGW	Yes	Yes				
List SRS?	No					
List UMMT?	No					
Capacity:						
Types of Storage Units						
Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
Other	building	0	No	No	No	No
Comment	<b># 7566: year opened information</b>					
Group of storage facilities, differing years of opening						

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>Research</b>		
<b>Description:</b>	Storage at Research Instituts		
<b>Storage part of facility</b>			
The following shows storage status for waste classes and SRS.			
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>	
NHGW	No	No	
HGW	No	No	
<b>List SRS?</b>	#Error		
<b>List UMMT?</b>	#Error		
<b>Capacity:</b>			
<b>Comment</b>	<b># 7565: year opened information</b>		
Group of storage facilities, differing years of opening			

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	<b>Siemens</b>		
<b>Description:</b>	Storage facility for radioactive waste from the Siemens-MOX plant in Hanau		
<b>Storage part of facility</b>			
The following shows storage status for waste classes and SRS.			
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>	
NHGW	No	No	
HGW	No	No	
<b>List SRS?</b>	#Error		
<b>List UMMT?</b>	#Error		
<b>Capacity:</b>			
<b>Comment</b>	<b># 7560: year opened information</b>		
	Second partial license for decommissioning march 2003		



## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	VKTA									
<b>Description:</b>	Storage facility in the research center Rossendorf									
<b>Storage part of facility</b>										
The following shows storage status for waste classes and SRS.										
<table border="1"><thead><tr><th>Waste Class</th><th>Actual</th><th>Planned</th></tr></thead><tbody><tr><td>NHGW</td><td>No</td><td>No</td></tr><tr><td>HGW</td><td>No</td><td>No</td></tr></tbody></table>	Waste Class	Actual	Planned	NHGW	No	No	HGW	No	No	
Waste Class	Actual	Planned								
NHGW	No	No								
HGW	No	No								
<b>List SRS?</b>	#Error									
<b>List UMMT?</b>	#Error									
<b>Capacity:</b>										

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	ZLN	
<b>Description:</b>	Storage facility north in Greifswald for radioactive waste from the NPPs Greifswald and Rheinsberg	
<b>Storage part of facility</b>		
The following shows storage status for waste classes and SRS.		
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>
NHGW	No	No
HGW	No	No
<b>List SRS?</b>	#Error	
<b>List UMMT?</b>	#Error	
<b>Capacity:</b>		

## Site (Structure) : National

Country: GERMANY

Reporting Year: 2005

<b>Facility:</b>	ZLN									
<b>Description:</b>	Processing facility for radioactive waste in the storage facility north (ZLN)									
<b>Processing part of facility</b>										
The following shows processing status for waste classes and SRS.										
<table border="1"><thead><tr><th>Waste Class</th><th>Actual</th><th>Planned</th></tr></thead><tbody><tr><td>NHGW</td><td>No</td><td>No</td></tr><tr><td>HGW</td><td>No</td><td>No</td></tr></tbody></table>	Waste Class	Actual	Planned	NHGW	No	No	HGW	No	No	
Waste Class	Actual	Planned								
NHGW	No	No								
HGW	No	No								
<b>Type:</b>										
<b>Year opened:</b>										

**Site (Data) : National**

Stock of waste as at December 2005

Country: GERMANY

Reporting Year: 2005

**Site Name: National**

Full Name: National is a "theoretical site" that includes some individual existing sites as well as sites grouped to facilitate reporting. There are various locations and license holders.

Inventory Reporting Date: December 2005 Waste Matrix Used: GER

**Comment # 324: Processing Facilities**

In addition to the stationary waste processing facilities there are several mobile waste processing facilities available which can be transported and operated at the waste generator's site.

**Comment # 325: Operating Life of Storage Facilities**

Radioactive waste has to be stored until a final repository is available. The intended start of operation of a German repository for radioactive waste is approximately in the year 2030. The estimated Operating Life of the storage facilities is the time from facility construction to 2030.

**Comment # 326: LSSt**

The Federal States Collecting Depots combined in this group are:

Landessammelstelle Baden-Württemberg,  
Landessammelstelle Bayern,  
Landessammelstelle Berlin,  
Landessammelstelle Hessen,  
Landessammelstelle Niedersachsen,  
Landessammelstelle Nordrhein-Westfalen,  
Landessammelstelle Rheinland-Pfalz,  
Landessammelstelle Saarland,  
Landessammelstelle Sachsen,  
Landessammelstelle Schleswig-Holstein,  
Vorläufige Verwahrstelle Brandenburg

**Comment # 327: Industry**

The Nuclear Industry combined in this group are:

Advanced Nuclear Fuels GmbH,  
Siemens AG - Unternehmensbereich Kraftwerk Union,  
Urenco GmbH Gronau,  
Urenco GmbH Jülich.

Nukem and Siemens Brennelementewerk Hanau/MOX are listed as separate facilities.

## Site (Data) : National

Stock of waste as at December 2005

Country: GERMANY

Reporting Year: 2005

## Comment # 328: NPP

The Nuclear Power Plants combined in this group are:

Kernkraftwerk Biblis A und B,  
Kernkraftwerk Brokdorf,  
Kernkraftwerk Brunsbüttel,  
Kernkraftwerk Emsland,  
Kernkraftwerk Grafenrheinfeld,  
Kernkraftwerk Grohnde,  
Kernkraftwerk Gundremmingen Blöcke B und C,  
Kernkraftwerk Isar 1,  
Kernkraftwerk Isar 2,  
Kernkraftwerk Krümmel,  
Kernkraftwerk Mülheim-Kärlich,  
Kernkraftwerk Neckarwestheim Blöcke 1 und 2,  
Kernkraftwerk Obrigheim,  
Kernkraftwerk Philippsburg Blöcke 1 und 2,  
Kernkraftwerk Stade,  
Kernkraftwerk Unterweser,  
Kernkraftwerk Greifswald,  
Kernkraftwerk Gundremmingen Block A,  
Kernkraftwerk Hamm-Uentrop,  
Kernkraftwerk Jülich,  
Kernkraftwerk Lingen,  
Kernkraftwerk Rheinsberg,  
Kernkraftwerk Würgassen,  
Kernkraftwerk-Betriebsgesellschaft KNK,  
Kernkraftwerk-Betriebsgesellschaft MZFR,  
Versuchsatomkraftwerk Kahl VAK

## Comment # 329: Research

The Research Institutes combined in this group are:

Europäisches Institut für Transurane,  
Forschungs-und Meßreaktor Braunschweig,  
Forschungsreaktor Garching,  
Forschungszentrum Geesthacht GmbH,  
Hahn-Meitner-Institut Berlin GmbH,  
Institut für Radiochemie.

Forschungszentrum Jülich GmbH,  
Forschungszentrum Karlsruhe GmbH and  
VKT Rossendorf are listed as separate facilities.

## Comment # 330: Other

Waste Generators combined in this group are:

Bundeswehr,  
AEAT Lehse

## Comment # 331: HGW

Only liquid High Active Concentrate (as "unprocessed") and vitrified High Active Concentrate (as "processed") is included. Spent fuel and core scrap from light-water-reactors is not included.

## Comment # 332: Reprocessing abroad

Spent fuel from German NPPs was/is shipped to France and Great Britain for reprocessing. The waste products will be reported when they are returned to Germany.

## Comment # 333: Decommissioning waste

Decommissioning waste is reported together with operational waste of the respective origin

Site (Data) : National

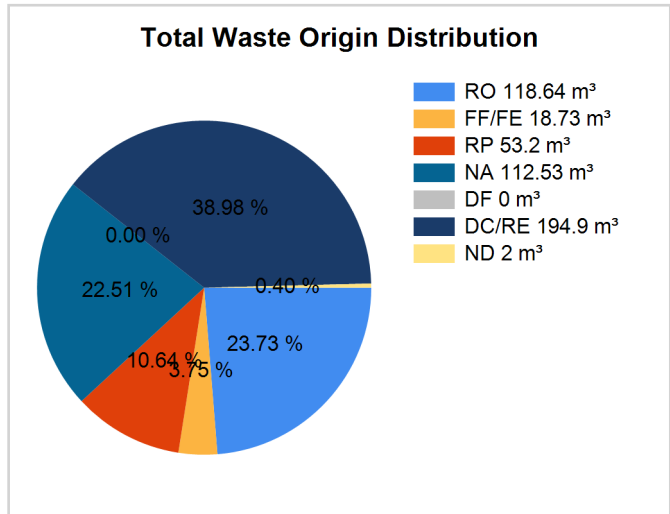
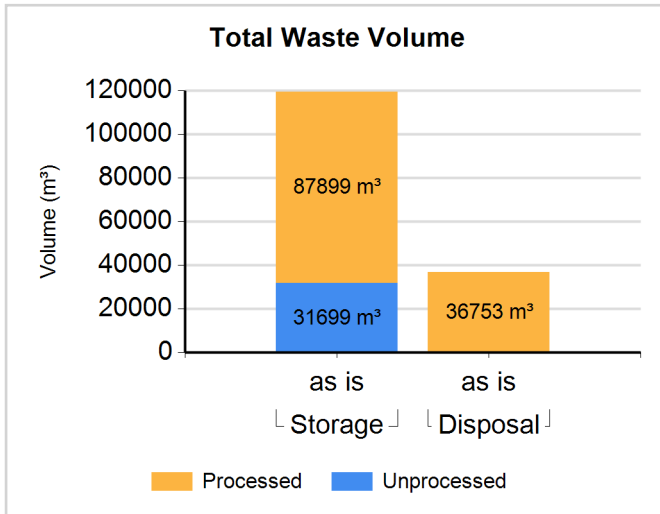
Stock of waste as at December 2005

Country: GERMANY

Reporting Year: 2005

**Waste Inventory**

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined



Note: where volume "as dispo" is provided, volume "as is" is used in the graph instead.

**Waste Class: NHGW**

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
NHGW	Storage	N	N	31251.000	31251.000	20.00	10.10	3.60	40.00	0.00	24.30	2.00
NHGW	Storage	Y	N	86096.000	86096.000	16.90	8.20	15.90	48.30	0.00	10.70	0.00
NHGW	Disposal	Y	N	36753.000	36753.000	81.44	0.43	0.00	18.13	0.00	0.00	0.00

**Waste Class: HGW**

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
HGW	Storage	N	N	448.000	448.000	0.00	0.00	13.00	0.00	0.00	87.00	0.00
HGW	Storage	Y	N	1803.000	1803.000	0.30	0.00	20.70	6.10	0.00	72.90	0.00

**Regulators**

Country: GERMANY

Reporting Year: 2005

<b>Name:</b>	<b>BMU</b>
<b>Full Name:</b>	Federal Minister for the Environment, Nature Conservation and Nuclear Safety (Bundesministerium fuer Umwelt, Naturschutz und Reaktorsicherheit - BMU)
<b>Divison:</b>	Department RS, Safety of Nuclear Installations, Radiological Protection, Nuclear Fuel Cycle and Waste Management
<b>City or Town:</b>	D-53048 Bonn
<b>Main Website:</b>	

## Regulations / Laws

Country: GERMANY

Reporting Year: 2005

<b>Name:</b>	<b>ATG</b>		
Title or Name:	Atomic Energy Act (Atomgesetz)		
Reference Number:			
Date Promulgated or Proclaimed:	12/23/1959	Law	

<b>Name:</b>	<b>StrISchV</b>		
Title or Name:	Radiation Protection Ordinance (Strahlenschutzverordnung)		
Reference Number:			
Date Promulgated or Proclaimed:	7/20/2001	Regulation	

<b>Name:</b>	<b>UVPG</b>		
Title or Name:	Act on the Assessment of Environmental Impact (Gesetz über die Umweltverträglichkeitsprüfung)		
Reference Number:			
Date Promulgated or Proclaimed:	2/12/1990	Law	

<b>Name:</b>	<b>BBergG</b>		
Title or Name:	Federal Mining Act (Bundesberggesetz)		
Reference Number:			
Date Promulgated or Proclaimed:	8/13/1980	Law	

<b>Name:</b>	<b>StrVG</b>		
Title or Name:	Act on the Precautionary Protection of the Population against Radiation Exposure (Strahlenschutzvorsorgegesetz)		
Reference Number:			
Date Promulgated or Proclaimed:	12/19/1986	Law	



## Future Outlook

Country: GERMANY

Reporting Year: 2005

**Data not available.**

## Policies

Country: GERMANY

Reporting Year: 2005

## National Systems

<b>Policy</b>		<b>(Yes;Partially;No)</b>
Q14	Has your Country implemented a national policy for radioactive waste management?	Yes
<b>Strategies</b>		<b>(Yes;Partially;No)</b>
Q15	Has your country developed strategies to implement a national policy?	Yes
<b>Requirements</b>		<b>(Yes;Partially;No)</b>
Q17	identified the parties involved in the different steps of radioactive waste management	Yes
Q18	specified a rational set of safety, radiological and environmental protection objectives	Yes
Q19	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
Q20	implemented controls over radioactive waste generation	Yes
Q21	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
Q22	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
Q23	implemented appropriate research and development to support the operational and regulatory needs	Yes
Q24	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
Q25	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes
<b>Responsibilities</b>		<b>(Complete;Incomplete)</b>
Q28	establish and implement a legal framework for the management of radioactive waste	Complete
Q29	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
Q30	define the responsibilities of waste generators and operators of waste management facilities	Complete
Q31	provide for adequate resources	Complete
Q33	enforce compliance with regulatory requirements	Complete
Q34	implement the licensing process	Complete
Q35	advise the government	Complete
Q37	identify an acceptable destination for the radioactive waste	Complete
Q114	comply with legal requirements	Complete

## Policies

Country: GERMANY

Reporting Year: 2005

Activities		(Yes;Partially;No)
Q43	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
Q44	ensure adequate radiation protection for workers, the general public and the environment	Yes
Q45	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
Q46	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
Q47	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
Q48	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
Q49	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
Q50	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

## Disposal Facilities

Licensing		(Yes - All;Yes - Some;No)
Q53	Environmental Assessment (EA)	Yes - All
Q54	Environmental Impact Statement (EIS)	Yes - All
Q55	Performance Assessment (PA)	Yes - All
Q56	Quality Assurance (QA)	Yes - All
Q57	Safety Assessment (SA)	Yes - All
Q59	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

Operation		(Yes - All;Yes - Some;No)
Q60	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

Post-Closure		(Yes;No)
Q61	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
Q62	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
Q63	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Comment # 334: Active Institutional Control

Germany does not plan to have an active institutional control period for its disposal facilities.

## Policies

Country: GERMANY

Reporting Year: 2005

**Processing/Storage**

<b>Policies/Procedures</b>		<b>(Yes;No)</b>
Q73	waste sorting/segregation	Yes
Q74	waste minimization	Yes
Q75	waste storage	Yes
Q76	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
Q78	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No
<b>Implementation</b>		<b>(Yes;No)</b>
Q80	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
Q81	In your Country are there any centralized waste processing facilities?	Yes
Q82	In your Country are there any mobile waste processing facilities?	Yes

## Policies

Country: GERMANY

Reporting Year: 2005

**Spent/Disused SRS**

<b>Registration</b>		<b>(Yes;No)</b>
Q84	Is there a national level registry?	No
Q87	Are there regional-level registries (one or more)?	Yes
Q88	If the answer was yes, are any registries used only for disused/spent SRS?	No
Q90	Are there local-level registries (one or more)?	Yes
Q115	If the answer was yes, are any registries used only for disused/spent SRS?	No

<b>Procedures</b>		<b>(Yes;No)</b>
Q91	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

Comment **# 321: Regulations for spent SRS**

There are no special regulations for spent/disused SRS in Germany. Once SRSs are declared spent/disused, they are treated as radioactive waste.

<b>Agreements</b>		<b>(Yes;No)</b>
Q93	Government to Government agreements	No
Q94	Government - Supplier agreements	No
Q95	Supplier-User agreements	Yes
Q97	Do any agreements include suppliers that are outside of your Country?	Yes

<b>Release / Disposal</b>		<b>(Yes;No)</b>
Q99	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
Q100	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
Q101	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
Q102	Has your Country implemented dedicated disposal facilities for spent SRS?	No
Q103	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Comment **# 322: Free Release of SRS**

There are no special regulations for free release of spent/disused SRSs in Germany. The regulations for free release of radioactive material are in force.

Country: GERMANY

Reporting Year: 2005

**Import-Export****Radioactive Waste****(Yes;No)**

Q104 Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)? Yes

**Spent Fuel****(Yes;No)**

Q105 Does your Country have laws or Regulations restricting either the import or export of spent fuel? Yes

**Liquid HLW****Storage****(Yes;No)**

Q106 Does your Country have high-level liquid wastes in storage? Yes

**Processing****(Yes - All;Yes - Some;No)**

Q107 If your Country has high-level liquid wastes in storage, are there documented plans in place to process these liquids? Yes - All

**Timeframe****(Yes - All;Yes - Some;No)**

Q108 If your Country has high-level liquid wastes in storage, are there plans to have this waste be processed within a specified time frame? Yes - All

Q109 If the answer to the previous question is Yes, what year is this processing planned to be completed (format = YYYY) 2005

**UMMT****Responsibility****(Yes;No)**

Q110 Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them? No

## Policies

Country: GERMANY

Reporting Year: 2005

**Decommissioning****Funding****(Yes - All;Yes - Some;No)**

Q111	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All
------	--	-----------

**Facilities****(Yes;No)**

Q119	Does Your Country have any nuclear fuel cycle facilities?	Yes
------	---	-----

Q120	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes
------	---	-----

**Timeframe****(Yes - All;Yes - Some;No)**

Q112	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - All
------	--	-----------

Q113	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	Yes - All
------	--	-----------

## Future Outlook

Country: GERMANY

Reporting Year: 2005

**Data not available.**



## Future Outlook

Country: GERMANY

Reporting Year: 2005

**Data not available.**

## Future Outlook

Country: GERMANY

Reporting Year: 2005

**Data not available.**

## Future Outlook

Country: GERMANY

Reporting Year: 2005

**Data not available.**

## Future Outlook

Country: GERMANY

Reporting Year: 2005

**Data not available.**

## Future Outlook

Country: GERMANY

Reporting Year: 2005

**Data not available.**

## Future Outlook

Country: GERMANY

Reporting Year: 2005

**Data not available.**

## Future Outlook

Country: GERMANY

Reporting Year: 2005

**Data not available.**