

## Nuclear facilities in Germany

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BW	Baden-Württemberg	BY	Bavaria	BE	Berlin
BB	Brandenburg	HB	Bremen	HH	Hamburg
HE	Hesse	MV	Mecklenburg-Western Pomerania	NI	Lower Saxony
NRW	North Rhine-Westphalia	RP	Rhineland-Palatinate	SH	Schleswig-Holstein
SN	Saxony				

## 1. Nuclear power plants and prototype reactors

**Table 1a: Nuclear power plants and prototype reactors - permanently shut down without decommissioning licence or decommissioning licence not accessed so far**

No	Name	Abbrev.	Reactor type	Power MW <sub>e</sub> (gross)	First criticality	In routine operation since	Shut- down date	Application for decommissioning	Operator	Location of site
1	Krümmel	KKK	BWR	1,402	1983-09-14	1984	2011-08-06	2015-08-24	Kernkraftwerk Krümmel GmbH & Co. oHG	Krümmel (SH)
2	Brokdorf	KBR	PWR	1,480	1986-10-08	1986	2021-12-31	2017-12-01	PreussenElektra GmbH	Brokdorf (SH)
3	Emsland	KKE	PWR	1,406	1988-04-14	1988	2023-04-15	2016-12-22	RWE Nuclear GmbH	Lingen (NI)

**Table 1b: Nuclear power plants and prototype reactors - in decommissioning**

No	Name	Abbrev.	Reactor type	Power MW <sub>e</sub> (gross)	First criticality	In routine operation since	Shut- down date	First Decommissioning Licence	Operator	Location of site
1	Rheinsberg (p.a.)	KKR	PWR / WWER	70	1966-03-11	1966	1990-06-01	1995-04-28	EWN Entsorgungswerk für Nuklearanlagen GmbH (EWN)	Rheinsberg (BB)
2	Kompakte natriumgekühlte Kernanlage (p.a.)	KNK II	SNR	21	1977-10-10	1979	1991-08-23	1993-08-26	Kerntechnische Entsorgung Karlsruhe GmbH – KTE- (subsidiary of EWN GmbH)	Eggenstein-Leopoldshafen (BW)
3	Mehrzweck-forschungsreaktor (p.a.)	MZFR	PWR / D <sub>2</sub> O	57	1965-09-29	1966	1984-05-03	1987-11-17	Kerntechnische Entsorgung Karlsruhe GmbH – KTE– (subsidiary of EWN GmbH)	Eggenstein-Leopoldshafen (BW)
4	Obrigheim	KWO	PWR	357	1968-09-22	1969	2005-05-11	2008-08-28	EnBW Kernkraft GmbH (EnKK)	Obrigheim (BW)
5	Neckarwestheim I	GKN I	PWR	840	1976-05-26	1976	2011-08-06	2017-02-03	EnBW Kernkraft GmbH (EnKK)	Neckarwestheim (BW)
6	Neckarwestheim II	GKN II	PWR	1,400	1988-12-29	1989	2023-04-15	2023-04-04	EnBW Kernkraft GmbH (EnKK)	Neckarwestheim (BW)
7	Philippsburg 1	KKP 1	BWR	926	1979-03-09	1980	2011-08-06	2017-04-07	EnBW Kernkraft GmbH (EnKK)	Philippsburg(BW)
8	Philippsburg 2	KKP 2	PWR	1.468	1984-12-13	1985	2019-12-31	2019-12-17	EnBW Kernkraft GmbH (EnKK)	Philippsburg(BW)
9	Isar 1	KKI 1	BWR	912	1977-11-20	1979	2011-08-06	2017-01-17	PreussenElektra GmbH	Essenbach (BY)
10	Isar 2	KKI 2	PWR	1,485	1988-01-15	1988	2023-04-15	2024-03-21	PreussenElektra GmbH	Essenbach (BY)
11	Gundremmingen A	KRB A	BWR	250	1966-08-14	1967	1977-01-13	1983-05-26	RWE Nuclear GmbH	Gundremmingen (BY)
12	Grafenrheinfeld	KKG	PWR	1.345	1981-12-09	1982	2015-06-27	2018-04-11	PreussenElektra GmbH	Grafenrheinfeld (BY)
13	Gundremmingen B	KRB II B	BWR	1,344	1984-03-09	1984	2017-12-31	2019-03-19	RWE Nuclear GmbH	Gundremmingen (BY)
14	Gundremmingen C	KRB II C	BWR	1,344	1984-10-26	1985	2021-12-31	2021-05-26	RWE Nuclear GmbH	Gundremmingen (BY)

No	Name	Abbrev.	Reactor type	Power MW <sub>e</sub> (gross)	First criticality	In routine operation since	Shut- down date	First Decommissioning Licence	Operator	Location of site
15	Biblis-A	KWB A	PWR	1,225	1974-07-16	1975	2011-08-06	2017-03-30	RWE Nuclear GmbH	Biblis (HE)
16	Biblis-B	KWB B	PWR	1,300	1976-03-25	1977	2011-08-06	2017-03-30	RWE Nuclear GmbH	Biblis (HE)
17	Greifswald 1 (p.a.) Unit 6 has never reached criticality, but is also part of the plant (twin blocks)	KGR 1	PWR / WWER	440	1973-12-03	1974	1990-12-18	1995-06-30	EWN Entsorgungswerk für Nuklearanlagen GmbH (EWN)	Lubmin (MV)
18	Greifswald 2 (p.a.)	KGR 2	PWR / WWER	440	1974-12-03	1975	1990-02-14	1995-06-30	EWN Entsorgungswerk für Nuklearanlagen GmbH (EWN)	Lubmin (MV)
19	Greifswald 3 (p.a.)	KGR 3	PWR / WWER	440	1977-10-06	1978	1990-02-28	1995-06-30	EWN Entsorgungswerk für Nuklearanlagen GmbH (EWN)	Lubmin (MV)
20	Greifswald 4 (p.a.)	KGR 4	PWR / WWER	440	1979-07-22	1979	1990-06-02	1995-06-30	EWN Entsorgungswerk für Nuklearanlagen GmbH (EWN)	Lubmin (MV)
21	Greifswald 5 (p.a.)	KGR 5	PWR / WWER	440	1989-03-26	-	1989-11-30	1995-06-30	EWN Entsorgungswerk für Nuklearanlagen GmbH (EWN)	Lubmin (MV)
22	Grohnde	KWG	PWR	1,430	1984-09-01	1985	2021-12-31	2023-12-06	PreussenElektra GmbH	Emmerthal (NI)
23	Lingen	KWL	BWR	252	1968-01-31	1968	1977-01-05	1985-11-21   1988-03-30 (SE) 2015-12-21 (dismantling of the facility)	Kernkraftwerk Lingen GmbH (100 % subsidiary enterprise of RWE Nuclear GmbH)	Lingen (NI)
24	Stade	KKS	PWR	672	1972-01-08	1972	2003-11-14	2005-09-07	PreussenElektra GmbH	Stade (NI)
25	Unterweser	KKU	PWR	1,410	1978-09-16	1979	2011-08-06	2018-02-05	PreussenElektra GmbH	Esenshamm (NI)

No	Name	Abbrev.	Reactor type	Power MW <sub>e</sub> (gross)	First criticality	In routine operation since	Shut- down date	First Decommissioning Licence	Operator	Location of site
26	Arbeits-gemeinschaft Versuchsreaktor Jülich (p.a.)	AVR	HTR	15	1966-08-26	1969	1988-12-31	1994-03-09	JEN mbH (company of the EWN GmbH), former AVR GmbH	Jülich (NRW)
27	Thoriumhoch-temperaturreaktor (p.a.)	THTR 300	HTR	308	1983-09-13	1987	1988-09-29	1993-10-22   1997-05-21 (SE)	HKG	Hamm-Uentrop (NRW)
28	Würgassen	KWW	BWR	670	1971-10-22	1975	1994-08-26	1997-04-14	PreussenElektra GmbH	Würgassen (NRW)
29	Mülheim-Kärlich	KMK	PWR	1,302	1986-03-01	1987	1988-09-09	2004-07-16	RWE Nuclear GmbH	Mülheim-Kärlich (RP)
30	Brunsbüttel	KKB	BWR	806	1976-06-23	1977	2011-08-06	2018-12-21	Kernkraftwerk Brunsbüttel GmbH & Co. oHG	Brunsbüttel (SH)

(p.a.) finance by public authorities

**Table 1c: Nuclear power plants and prototype reactors - decommissioning completed or released from regulatory control**

No	Name	Abbrev.	Reactor type	Power MW <sub>e</sub> (gross)	first criticality	In routine operation since	Shut- down date	First Decommissioning Licence   Decommissioning finalised	Operator	Location of site
1	Heissdampfreaktor Grosswelzheim (p.a.)	HDR	HDR (Hot steam reactor)	25	1969-10-14	1970	1971-04-20	1983-02-16   Released from regulatory control: 1998-05-14 Completely dismantled: 1998-10-15	Karlsruher Institut für Technologie (KIT), former Forschungszentrum Karlsruhe GmbH	Karlstein (BY)
2	Niederaichbach (p.a.)	KKN	DRR / D <sub>2</sub> O-moderated	106	1972-12-17	1973	1974-07-31	1975-10-21   Released from regulatory control: 1994-08-17 Completely dismantled: 1995-08-17	Karlsruher Institut für Technologie (KIT), former Forschungszentrum Karlsruhe GmbH	Niederaichbach (BY)
3	Versuchsatomkraftwerk Kahl	VAK	BWR	16	1960-11-13	1962	1985-11-25	1988-05-05   Released from regulatory control: 2010-05-17 Completely dismantled: 2010-09-24	VAK	Karlstein (BY)

(p.a.) finance by public authorities

## 2. Research reactors

**Table 2a: Research reactors – permanently shut down, without decommissioning licence**

No	Name	Abbrev.	Reactor type; Power	First criticality	Date of shut-down	Application for decommissioning	Operator	Location of site
1	Berliner Experimentier- Reaktor	BER II	Pool-type / MTR; 10 MW <sub>th</sub>	1973-12-09	2019-12-11	2017-04-24	Helmholtz-Zentrum Berlin für Materialien und Energie GmbH	Berlin (BE)
2	Forschungsreaktor Geesthacht 1	FRG 1	Pool-type / MTR ; 5 MW <sub>th</sub>	1958-10-23	2010-06-28	2013-03-21	Helmholtz-Zentrum Geesthacht Zentrum für Material- und Küstenforschung GmbH	Geesthacht (SH)
3	Forschungsreaktor Geesthacht 2	FRG 2	Pool-type / MTR; 15 MW <sub>th</sub>	1963-03-16	1993-01-28 Application for shut down 1995-01-17 Licence for shut down and partial dismantling	2013-03-21 Application for dismantling of the entire facility (consisting of the FRG-1 and remaining parts of FRG-2)	Helmholtz-Zentrum Geesthacht Zentrum für Material- und Küstenforschung GmbH	Geesthacht (SH)

**Table 2b: Research reactors – in decommissioning**

No	Name	Abbrev.	Reactor type; Power	First criticality	Date of shut-down	First Decommissioning Licence	Operator	Location of site
1	Forschungsreaktor 2	FR 2	Tank-type / D <sub>2</sub> O; 44 MW <sub>th</sub>	1961-03-07	1981-12-21	1986-07-03   1996-11-20 (SE)	Kerntechnische Entsorgung Karlsruhe GmbH – KTE – (subsidiary of EWN GmbH)	Eggenstein- Leopoldshafen (BW)
2	Forschungsreaktor München	FRM	Pool-type / MTR; 4 MW <sub>th</sub>	1957-10-31	2000-07-28	2014-04-03	Technische Universität München	Garching (BY)
3	Forschungsreaktor Neuherberg	FRN	Pool-type / TRIGA MARK-III; 1 MW <sub>th</sub>	1972-08-23	1982-12-16	1983-05-30   1984-05-24 (SE)	Helmholtz Zentrum München – Deutsches Forschungszentrum für Gesundheit und Umwelt (GmbH)	Oberschleißheim (BY)
4	Forschungs- und Messreaktor Braunschweig	FMRB	Pool-type / MTR; 1 MW <sub>th</sub>	1967-10-03	1995-12-19	2001-03-02   2005-07-28 (released from regulatory control except interim storage)	Physikalisch- Technische Bundesanstalt	Braunschweig (NI)
5	DIDO	FRJ 2	Tank-type / D <sub>2</sub> O ; 23 MW <sub>th</sub>	1962-11-14	2006-05-02	2012-09-20	JEN mbH (company of the EWN GmbH), former Forschungszentrum Jülich GmbH	Jülich (NRW)
6	Siemens- Unterrichtsreaktor Aachen	SUR AA	homogenous (S) / SUR-100 ; 1.0E-07 MW <sub>th</sub>	1965-09-22	Free from nuclear fuel since 2008	2020-06-26	Rheinisch- Westfälische Technische Hochschule Aachen, Institut für Elektrische Anlagen und Energiewirtschaft	Aachen (NRW)

SE Facility in safe enclosure



**Table 2c: Research reactors - decommissioning completed or released from regulatory control**

No	Name	Abbrev.	Reactor type; Power	First criticality	Shut-down date	First Decommissioning Licence   Decommissioning finalised	Operator	Location of site
1	Schnelle Nullenergie-Anordnung	SNEAK	homogenous (S); 1.0E-03 MW <sub>th</sub>	1966-12-15	1985-11	1986-06-03   1987-05-06	Karlsruher Institut für Technologie (KIT), former Forschungszentrum Karlsruhe GmbH	Eggenstein-Leopoldshafen (BW)
2	Schnelle Unterkritische Anordnung	SUAK	Fast sub-critical assembly; 0 MW <sub>th</sub>	1964-11-20 start of operation	1978-12-07		Karlsruher Institut für Technologie (KIT), former Forschungszentrum Karlsruhe GmbH	Eggenstein-Leopoldshafen (BW)
3	Schnell-Thermischer Argonautreaktor	STARK	Argonaut modified Argonaut-reactor; 1.0E-05 MW <sub>th</sub>	1963-01-11	1976-03	1976   1977	Karlsruher Institut für Technologie (KIT), former Forschungszentrum Karlsruhe GmbH	Eggenstein-Leopoldshafen (BW)
4	Siemens-Unterrichtsreaktor Karlsruhe	SUR KA	homogenous (S) / SUR-100; 1.0E-07 MW <sub>th</sub>	1966-03-07	1996-09	1996-11-25   1998-06-26	Karlsruher Institut für Technologie (KIT), former Forschungszentrum Karlsruhe GmbH	Eggenstein-Leopoldshafen (BW)
5	TRIGA Heidelberg I	TRIGA HD I	Pool-type / TRIGA MARK-I; 0.25 MW <sub>th</sub>	1966-08-26	1977-03-31	1980-06-30 1980-12-11 (SE) 2006-01-16 (DiL)   2006-12-13 facility dismantled, site restored in 2009	Deutsches Krebsforschungs-zentrum	Heidelberg (BW)
6	TRIGA Heidelberg II	TRIGA HD II	Pool-type / TRIGA MARK-I; 0.25 MW <sub>th</sub>	1978-02-28	1999-11-30	2004-09-13   2006-12-13	Deutsches Krebsforschungs-zentrum	Heidelberg (BW)
7	AEG-Nullenergiereaktor, Thermisch-Kritische Anordnung	TKA	Tank-type-type / thermisch critical assembly 1.0E-04 MW <sub>th</sub>	1967-06-23	1973	1981-09-28   1981-12-21	Kraftwerk Union AG	Karlstein (BY)
8	AEG-Prüfreaktor	PR 10	Argonaut; 1.8E-04 MW <sub>th</sub>	1961-01-27	1976	1976-07-27   1978-02-22	Kraftwerk Union AG	Karlstein (BY)
9	Siemens Argonaut Reaktor	SAR	Argonaut; 1.0E-03 MW <sub>th</sub>	1959-06-23	1968-10-31	1992-08-28 (DiL)   1998-03-20	Technische Universität München	Garching (BY)

No	Name	Abbrev.	Reactor type; Power	First criticality	Shut-down date	First Decommissioning Licence   Decommissioning finalised	Operator	Location of site
10	Siemens Unterkritische Anordnung (SUA was part of SUR-München)	SUA	Sub-critical assembly; 0 MW <sub>th</sub>	1959-06 Start of operation	1968	1968-10-31   1992-08-28 (DiL)   1998-03-20	Technische Universität München	Garching (BY)
11	Siemens-Unterrichtsreaktor München	SUR M	homogenous (S) / SUR-100; 1.0E-07 MW <sub>th</sub>	1962-02-28	1981-08-10	1992-08-28 (DiL)   1998-03-20	Technische Universität München	Garching (BY)
12	Berliner Experimentier-Reaktor	BER I	homogenous (L) / L-54(L); 0.05 MW <sub>th</sub>	1958-07-24	Summer 1972	1974-02-15 (revocation of the operation licence)   1974-04-23	Helmholtz Zentrum Berlin für Materialien und Energie	Berlin (BE)
13	Siemens-Unterrichtsreaktor Berlin	SUR B	homogenous (S) / SUR-100 ; 1.0E-07 MW <sub>th</sub>	1963-07-26	2007-10-15	2008-12-01   2013-04-16	Technische Universität Berlin, Institut für Energietechnik, Fachgebiet Kerntechnik	Berlin (BE)
14	Siemens-Unterrichtsreaktor Bremen	SUR HB	homogenous (S) / SUR-100; 1.0E-07 MW <sub>th</sub>	1967-10-10	1993-06-17	1997-06-05   1999-07-27 (DiL)   2000-03	Hochschule Bremen	Bremen (HB)
15	Siemens-Unterrichtsreaktor Hamburg	SUR HH	homogenous (S) / SUR-100 1.0E-07 MW <sub>th</sub>	1965-01-15	1992-08	1999-03-31   1999-12	Fachhochschule Hamburg	Hamburg (HH)
16	Forschungsreaktor Frankfurt -1	FRF 1	homogenous (L) / L-54(L); 0.05 MW <sub>th</sub>	1958-01-10	1968-03-19	1970 (DiL)   2006-10-31	Johann-Wolfgang- Goethe-Universität	Frankfurt (HE)
17	Forschungsreaktor Frankfurt -2 (Reactor building contains residues of FRF-1, a GA L-54-type liquid reactor)	FRF 2	Pool-type / modified TRIGA; 1 MW <sub>th</sub>	no criticality	no operation	1982-10-25   2006-10-31	Johann-Wolfgang- Goethe-Universität	Frankfurt (HE)
18	Siemens-Unterrichtsreaktor Darmstadt	SUR DA	homogenous (S) / SUR-100; 1.0E-07 MW <sub>th</sub>	1963-09-23	1985-02-22	1989-11-23   1990-08-02 (DiL)   1996-11-29	Technische Hochschule Darmstadt	Darmstadt (HE)
19	TRIGA-Hannover	FRH/ TRIGA MHH	Pool-type / TRIGA Mark-I; 0.25 MW <sub>th</sub>	1973-01-31	1996-12-18	2006-05-08   13.03.2008	Medizinische Hochschule Hannover	Hannover (NI)
20	SUR Hannover	SUR H	homogenous (S) / SUR-100 ; 1.0E-07 MW <sub>th</sub>	1971-12-09	2008	2017-09-04   2019-09-18	Universität Hannover Institut für Kerntechnik und Zerstörungsfreie Prüfungen	Hannover (NI)

No	Name	Abbrev.	Reactor type; Power	First criticality	Shut-down date	First Decommissioning Licence   Decommissioning finalised	Operator	Location of site
21	Forschungsreaktor MERLIN	FRJ 1	Pool-type / MTR; 10 MW <sub>th</sub>	1962-02-24	1985-03-22	1995-06-08 (DeL)   2007-11-23	Forschungszentrum Jülich GmbH	Jülich (NRW)
22	Abbrandmessung differentieller Brennelemente mit kritischer Anordnung	ADIBKA	homogenous (L) / L77A; 1.0E-04 MW <sub>th</sub>	1967-03-18	1972-10-30	1977-07-07   1977-12	Forschungszentrum Jülich GmbH	Jülich (NRW)
23	Kritische Anordnung für Hochtemperaturreaktoren	KATHER	critical assembly; 1.0E-04 MW <sub>th</sub>	1973-07-02	1984-02-03	1987-11-09   1988-06	Forschungszentrum Jülich GmbH	Jülich (NRW)
24	Kritisches Experiment zum Incore-Thermionik-Reaktor	KEITER	critical assembly; 1.0E-06 MW <sub>th</sub>	1971-06-15	1982	1982-03-18   1988-06	Forschungszentrum Jülich GmbH	Jülich (NRW)
25	Rosendorfer Anordnung für kritische Experimente	RAKE	Tank-type-type / critical assembly; 1.0E-05 MW <sub>th</sub>	1969-10-03	1991-11-26	1997-08-19   1998-10-28	VKTA- Strahlenschutz, Analytik und Entsorgung Rosendorf e.V.	Rosendorf (SN)
26	Rosendorfer Ringzonenreaktor	RRR	Argonaut; 1.0E-03 MW <sub>th</sub>	1962-12-16	1991-09-25	1999-03-31   2000-05-11	VKTA- Strahlenschutz, Analytik und Entsorgung Rosendorf e.V.	Rosendorf (SN)
27	Rosendorfer Forschungsreaktor	RFR	Tank-type / WWR- SM; 10 MW <sub>th</sub>	1957-12-16	1991-06-27	1998-01-30   2019-09-19	VKTA- Strahlenschutz, Analytik und Entsorgung Rosendorf e.V.	Rosendorf (SN)
28	Zittauer Lehr- und Forschungsreaktor	ZLFR	Tank-type / WWR-M; 1.0E-05 MW <sub>th</sub>	1979-05-25	2005-03-24 last operation	2005-07-01   2006-05-03	Hochschule Zittau/Görlitz (FH) FB Maschinenbauwesen	Zittau (SN)
29	Anlage für Nulleistungsexperimente	ANEX	critical assembly; 1.0E-04 MW <sub>th</sub>	1964-05	1975-02-05	1979-03-19 (DiL)   1980-01	Helmholtz-Zentrum Geesthacht Zentrum für Material- und Küstenforschung GmbH	Geesthacht (SH)
30	Nuclear cargo vessel "Otto Hahn" Competent authority was in Hamburg (port of registry)	OH	PWR / Propulsion reactor; 38 MW <sub>th</sub>	1968-08-26	1979-03-22	1980-12-01   1982-09-01	Helmholtz-Zentrum Geesthacht Zentrum für Material- und Küstenforschung GmbH	Geesthacht (SH)

No	Name	Abbrev.	Reactor type; Power	First criticality	Shut-down date	First Decommissioning Licence   Decommissioning finalised	Operator	Location of site
31	Siemens-Unterrichtsreaktor Kiel	SUR KI	homogenous (S) / SUR-100; 1.0E-07 MWth	1966-03-29	1997-12-11	2008-03-19   2008-04-02	Fachhochschule Kiel	Kiel (SH)

DiL Dismantling licence

### **3. Nuclear fuel cycle facilities (without interim storage and final repositories)**

#### **Table 3a: Nuclear fuel cycle facilities – permanently shut down without decommissioning licence**

No entry

**Table 3b: Nuclear fuel cycle facilities – in decommissioning**

No.	Name	Abbrev.	Begin of operation	Shut-down date	Decommissioning started	Operator	Purpose of facility	Capacity, cumulated capacity	Location of site
1	Wiederaufarbeitungsanlage Karlsruhe (Vitrification facility – VEK – part of decommissioning project)	WAK	1971	1990	1993-03-22	Kerntechnische Entsorgung Karlsruhe GmbH – KTE– (subsidiary of EWN GmbH)	Reprocessing pilot plant	35 Mg U/a, max. 3 % U-235 cum. 207 Mg U <sup>235</sup>	Karlsruhe (BW)
2	Siemens Power Generation Karlstein	SPGK	1968/69	1989	Spring 1993 (Clearing out of hot cells)	Siemens AG/KWU	Hot cell research facility, middle-active Lab (MAL), analytics, (temporarily) waste incineration (AREK) waste water treatment (AWEK)	Not specified	Karlstein (BY)

**Table 3c: Nuclear fuel cycle facilities – decommissioning completed or released from regulatory control**

No	Name	Abbrev.	Begin of operation	Shut-down date	Decommissioning started   finalised	Operator	Purpose of facility	Capacity, cumulated capacity	Location of site
1	Plutonium-Testextraktion	PUTE	1980	1991	1994   1996	Karlsruher Institut für Technologie (KIT), former Forschungszentrum Karlsruhe GmbH	Plutonium extraction research plant	4 kg Pu/Batch	Karlsruhe (BW)
2	Wiederaufarbeitungsanlage im Millitonnen-Maßstab	MILLI	1970	1991	1997   2000	Karlsruher Institut für Technologie (KIT), former Forschungszentrum Karlsruhe GmbH	Reprocessing research plant	cum. 200 kg HM	Karlsruhe (BW)
3	Siemens Brennelementwerk Hanau; Standort Karlstein (former RBU 2)	SBWK	1966	1993	1994-08-16   1999-03-31	Siemens AG	Fuel element production from uranium oxide with up to 4 % enrichment and gadolinium oxide	400 Mg/a UO <sub>2</sub> 3,000 Mg UO <sub>2</sub>	Karlstein (BY)
4	Hochtemperaturreaktor-Brennelementfabrik	HOBEG	1973	1988	1988-12-05   1995-12-18	HOBEG mbH	Production of HTR fuel spheres with particles from NUKEM-A	200,000 FE/a cum. 11.7 Mg HM	Hanau (HE)
5	Siemens Brennelementwerk Hanau; Betriebsteil Uranverarbeitung (former RBU 1)	SBH Uran	1969	1995	1997-01-06   2006-05	Siemens AG	Production of light water reactor fuel elements with an enrichment up to 5 %	Cum. 5 Mio. fuel elements made from 13,000 Mg UO <sub>2</sub> -powder	Hanau (HE)
6	Siemens Brennelementwerk Hanau; Betriebsteil MOX (former ALKEM)	SBH MOX	1968	1991	1997-09-23   2006-09	Siemens AG	Production of fuel elements for light water and fast breeder reactors on basis of mixed uranium/plutonium oxide	ca. 35 Mg HM/a cum. 8.5 Mg Pu	Hanau (HE)
7	Brennelementwerk NUKEM-A	NUKEM A	1962	1988	1993-03-10   2015-07-20	RD Hanau GmbH	Production of MTR fuel elements and fuel particles (uranium and thorium) for HTR fuel spheres (enrichment up to 94 %)	Not specified	Hanau (HE)
8	Juelich Pilot plant for Thorium Element Reprocessing	JUPITER	1978	1987	1987-12-21	Forschungszentrum Jülich GmbH	Research plant for reprocessing of HTR fuel spheres by incineration	2 kg HM/d < 100 kg unirradiated HM	Jülich (NRW)

No	Name	Abbrev.	Begin of operation	Shut-down date	Decommissioning started   finalised	Operator	Purpose of facility	Capacity, cumulated capacity	Location of site
9	Anlage zur Gewinnung von Mo-99	AMOR I-III	AMOR I: 1981 AMOR II: 1989 AMOR III: -	AMOR I: 1990 AMOR II: 1991 AMOR III: 1991 (Cessation of commissioning)	1997-10-20   2014-11-05	VKTA-Strahlenschutz, Analytik und Entsorgung Rossendorf e.V. (former Verein für Kernverfahrenstechnik und Analytik Rossendorf e.V.)	Production of Mo-99/Tc-99m nuclide generators. AMOR I: dissolver AMOR II: extraction AMOR III: uranium re-extraction (not operational)	Weekly capacity AMOR I: one batch with an activity of the fission products up to 7.5E14 Bq from targets being irradiated up to 190 h in the reactor	Rossendorf (SN)

HM Heavy metal

FE Fuel element