

# Information on the Final Repository for Radioactive Waste Morsleben (ERAM)

Located at the village Morsleben close to the former inner-German border not far from Helmstedt is the central repository for radioactive waste of the former German Democratic Republic (GDR). This nuclear facility was taken over by the federal government in 1990. Most of the radioactive inventory now originates from nuclear power plants in the Federal Republic of Germany (FRG). The ERAM is a former mine for potash and rock salt. In 1969, it was chosen as nuclear repository for the GDR.



## Time Line

- 1969 The State Office for Radiation Protection chooses Morsleben as location for the GDR's central repository for all kinds of nuclear waste.
- 1971/72 First deposition of 500 m<sup>3</sup> of atomic waste prior to the conversion to a repository for nuclear waste.
- 1972/73 Approval of the location; further depositions prior to the inauguration throughout the 1970s.
- 1978/79 Approval of the inauguration.
- 1981 Approval of permanent operation limited to five years.
- 1986 Unlimited approval of permanent operation issued by the administration of the GDR.
- since 1991 Under the responsibility of the federal government, the rate of reposition in Morsleben is increased compared to GDR times. A proof of longterm safety was not obtained.
- since 1995 In course of a broad investigation, data for a comprehensive hydro geologic expertise is collected. The results, however, are not published.
- 1998 A law suit by environmental activists stops the repositions. Subsequently, the federal government forgoes the parts of the operational approval related to the depositions.
- 2001 A boulder of several thousands tons of rock salt detaches and falls from the ceiling. In 2003, the mining office orders the start of preliminary rock filling measures in the central part of the ERAM due to acute danger of collapse.
- 2009 A cave-in of some 20,000 tons of salt rock is imminent in the central part. Once again an emergency backfilling starts.
- 2009 The public review process of the plans for the closure and the objection phase start.
- 2011 In public hearings the objections of about 13,000 people begins.



## Radioactive Inventory

A total of **36 753 cubic meters** of low- and intermediate-level radioactive waste with a total activity of **3.8E+14 Bq**. are stored in the ERAM. Of these, 14 432 cubic meters were deposited between 1971 and 1991. Around 22 320 cubic meters were deposited between 1994 and 1998.

Liquid radioactive waste was **sprayed** onto a layer of lignite ashes assuming that the mixture would solidify. This hope was not fulfilled and large amounts of radioactive liquid have dripped even to the lowest levels of the mine. Another procedure was employed later that was then also stopped, shortly after the takeover by the federal government.

Some of the solid radioactive waste was **dumped** loosely or in barrels into reposition cavities; alternatively, the barrels were **stacked**. Through the dumping, many barrels were damaged. Some radiation sources were sunk into **drill holes**.

# Safety Issues

As early as 1969, the **danger of collapse** in parts of the mine in Morsleben was known. Hence, this was known even before the first approval of operation was issued.

**Water influx** is another long known problem. For several decades, five drip leaks have been closely documented. For one of these, a connection to the overburden is known. Multiple other drip leaks that until then had been hushed up were uncovered by Greenpeace in the 1990s.

Fundamental **geological disadvantages** have an impact on the safety of the repository: The salt dome is intercepted by strata of easily soluble potash and porous main anhydrite. This increases the danger from water influx by providing easy points of attack. The different hazard factors (insufficient structural stability, water influx, movement of the overburden) influence and aggravate each other.

The **high complexity of the repository** complicates safety assessments. Seven levels, hundreds of caverns, tunnels, pits and connecting halls together with the folded geological structure make the ERAM an incalculable risk. During the last few years, two situations of **acute danger** occurred requiring immediate response: In late 2000 several cavities in the southern field of the repository had to be covered with salt grit and slack to prevent that rocks falling down from the ceiling would spre-

ad radioactive materials that could then spread further through the ventilation system. In October 2003, another measure was started to counter the imminent danger of collapse in the central part of the repository. Until spring 2011, 935,000 cubic meters of salt concrete had been backfilled in this part of the repository.

## Demands

- An end to the production of nuclear waste – **immediate shut-down of all nuclear facilities**, worldwide!
- **Recovery** of the nuclear waste deposited in Morsleben or **retrievable closure** of the disposal mine - the setting in the deep ground is uncontrollable!
- **Expertises** and all **other documents** concerning the repository in Morsleben must be made public to the critical public.
- **Real participation** for the people affected by the nuclear waste plight; instead of a pseudo-participation.
- **No false compromises** at the expense of humans and environment.

## Further Information

### Web-sites...

- Research project on the history of the ERAM: <http://greenkids.de/morsleben>
- Web-site of the Morsleben-Network: <http://morsleben-stillegung.de>
- Art-project: <http://www.steine-fuer-morsleben.kulturserver-san.de>
- Operator of the repository: <http://www.bfs.de>

### Independent Organizations...

#### **Greenkids e.V.**

PO-Box 32 01 19 | D-39040 Magdeburg  
Tel.: +49 34 31 / 589 41 70 | [morsleben@greenkids.de](mailto:morsleben@greenkids.de)  
Activities: Morsleben-Archive, background research

#### **Morsleben-Netzwerk**

Am Bärenatal 6 | D-04720 Ebersbach OT Mannsdorf  
Tel.: +49 34 31 / 589 41 77  
[kontakt@morsleben-stillegung.de](mailto:kontakt@morsleben-stillegung.de)  
Activities: Information, networking, political work

## ... Support

Besides your active contribution, you can support our criticism concerning the final repository for nuclear waste through a donation to one of the following organizations:

Account Holder: Initiative Morsleben  
IBAN: DE0425050000007215270  
BIC: NOLADE2HXXX  
Bank: Nord/LB Helmstedt

Or: Account Holder: Greenkids e.V.  
IBAN: DE754306096711017406 00  
BIC: GENO DE M 1 GLS  
Bank: GLS Bank

#### **Initiative against the nuclear repository Morsleben**

Rostocker Str. 5 | D-38350 Helmstedt  
Tel.: +49 53 51 / 41 861  
Activities: Local initiative

#### **Art project "steine für MorsLeben" (stones for MorsLife)**

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