Information on the

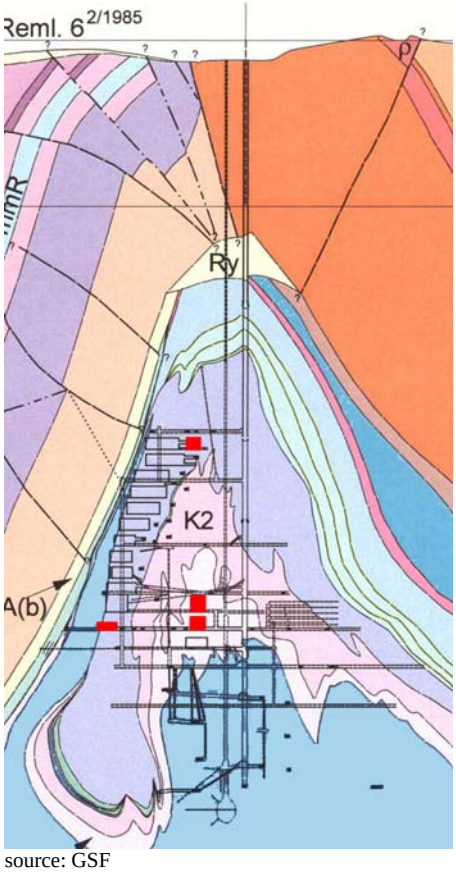
”Research”-Mine Asse II

The Asse II “research” mine is situated in hilly countryside near the village of Remlingen in the county of Wolfenbuettel. Atomic waste was stored there in the 60s and 70s, allegedly for experimental reasons.

The testing programme has come to an end but the waste is still in the pit. Brine is intruding the supposedly “stable and dry repository”. Now the mine is planned to be flooded – including all of the stored atomic waste.

Timeline

1964/65	End of rock salt mining and purchase of the salt mine by the GSF for repository research
From 1967	“Experimental” storage of approx. 125,000 barrels of low radioactive materials; approx. 1,300 barrels of middle radioactive waste followed later
1978	Storing stop in Asse II because of expiration of permission
1979	Hans-Helge Jürgens, qualified engineer, warns of lack of stability depicting the danger of water intrusion
1988	Up to that time brine intrusions were supposed to be self-contained incidents without any contact to groundwater. This statement is now cancelled: Access of presently 11,500 litres of brine per day originating somewhere from the top layers; the exact origin not being known and access not stoppable
1992	Permission for filling the mine with residual salt
1995	Cessation of trial activities with radioactive materials: start of backfill with salt
2002	Inventory table of the GSF contains, among others, radio nuclides and considerable amounts of chemically toxic materials 102 tons of uranium, 87 tons of rhodium, 11.6 tons of plutonium and radium (total activity 3.1 x 1015 Bq)
From 2002	Development of the flooding concept with hydrous magnesium chloride solution
From 2005	Backfill of the “Tiefenaufschluss” (deep exposure) below 775 m with salt and MgCl2-solution



source: GSF

Jan 2007	The GSF passes in the final operation plan to the LBEG (Landesamt für Bergbau, Energie und Geologie = State Office for Mining, Energy and Geology) in Clausthal
April 2007	LBEG demanding for subsequent improvement of the GSF’s final operation plan
April 2007	Bringing in of a claim for the application of the Federal Atomic Law for the Asse II site

Radioactive Inventory

(calculated retrospectively with delivery lists)

LAW	MAW
124.494 barrels	1.293 barrels
725m & 750m floor level	511m floor level
12 excavation caverns	1 excavation cavern
2.8×10^{15} Bq at disposing date	5×10^{15} Bq at disposing date
1.9×10^{15} Bq(as per Jan 1st, 2002)	1.2×10^{15} Bq(as per Jan 1st, 2002)
102 tons of uranium	150 kg of uranium
87 tons of thorium	3 kg of thorium
11 kg plutonium	0.6 kg of plutonium

The LAW barrels were initially stacked, the major part later on tumbled in the caverns and was covered with salt grit.

The MAW barrels were lowered from the 490m sole through a slide gate into the cavern using a crane.

Safety Problems

Due to its caverns almost any salt mine struggles with stability problems and mostly also with water intrusion. For 20 years, there has been a continuous flow of brine into Asse II. The origin is not known until today. Arguments for sealing the "leakage" will not succeed and the long-term stability of the mine has to be doubted. The operating company, an affiliate of the Federal administration), propagates the deliberate flooding of the pit – including the atomic waste!

It is clear that flooding will completely deteriorate the barrels containing the atomic waste within 10 to 100 years. The fluid – thus turned radioactive – will then be pressed out of the mining system by the overlying pressure. It will reach lower salt water layers which extend from Magdeburg to Hildesheim and from the rim of the Harz mountains to Lueneburg. Numerous local salt water sources will transport the contaminated salt solution to the surface. The remaining question is: How fast and how much radioactive material will come into the biosphere this way?

Alternative concepts like filling in solid matters or gels, respectively, or retrieving the atomic waste have not been considered. As evidence, a study is quoted that yields that the stability of the mine is only given until 2014. The disclosure of this source, however, is repeatedly being impeded. Moreover, since the expansion of the atomic law to atomic repositories in 1976 the comparison of options is compulsory. Using a canny dodge titling Asse an "experimental" repository the GSF is still succeeding in operating this atomic waste disposal under mining law and the application of the Radiation Protection Ordnance.

For the sake of at least using the planning approval procedure according to atomic law for the shut-down of the mine, Irmela Wrede, a resident, is now legally suing the Federal state of Lower Saxony. To financially safeguard this claim the Asse legal aid fund was founded. In the first level of jurisdication costs of up to 40,000 € are to be expected.

Our Requirements

- **A**sse II is no regular pit but Germany's biggest atomic waste disposal in existence
- **T**he overlying rock is neither tight nor stable nor dry. Rock movements are unexpectedly increasing, and as a result, a daily amount of 12 cubic metres of brine run into the pit. The atomic waste will not permanently be protected from uncontrolled intrusions. Out of this dilemma the operators want to fill up the mine with a fluid and leave the atomic waste alone – irretrievable. This intention deliberately takes into account the disintegration of the casks and the contamination of the groundwater by emitted radio nuclides within a small number of years.
- **W**e demand not to shut down Asse II by flooding. The atomic waste has to remain retrievable. All necessary actions for a possible retrieving have immediately to be planned in detail and secured by legal permissions. For keeping a retrieval possible the mine has to be stabilised instantly.
- **P**arallel to this, all alternatives to a flooding and to a retrieval have to be developed and evaluated in a publicly open and comprehensible process. Risks have to be analysed by independent specialists, ways of investigation and results must be made public.
- **T**he atomic law including its specific regulations, especially concerning the attendance of the public has to be the basis for all strategies and determinations.
- **S**ince the Federal Government is not willing to date to apply atomic law we strongly support the legal claim of Irmela Wrede. We will contribute to financially secure this by means of the Asse II legal aid fund.
- **T**he disastrous experience with Asse II have to have consequences for our further dealing with atomic power. Taking the lessons learnt seriously means accepting the knowledge that a further production of atomic waste cannot anymore be accounted for.

More information

Internet sites …

- Aktion Atommüllfreie Asse
  www.aaa-wf.de
- Asse II - Koordinationskreis
  www.asse2.de
- aufpASSEn e.V.
  www.aufpassen.org
- Betreiber des Endlagers
  www.gsf.de/asse

… supporting

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