

Press Release

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Liquid gas storage Bernburg 50 years of safe energy for central Germany

The favorable geological conditions of the Bernburg salt deposit allow it to be used for a variety of purposes. It began in 1884 with the extraction of brine, was soon supplemented by conventional mining, and has been using excavated caverns for energy storage for 50 years. The liquid gas storage facility at the Bernburg salt mine, located in two caverns of the Gnetsch brine field, can now look back on 50 years of successful operation.

The original aim of the construction of a large-capacity storage facility for liquefied gas was to stabilize the gas supply during the winter months. However, there had been no experience with the construction of such an underground storage facility until then, so that new ground had to be broken. Many technical questions had to be clarified before the first trial storage of a propane-butane mixture took place on 13 November 1969 - the Bernburg liquid gas storage facility was born.

Expansion and modernization

The initial storage volume was soon insufficient, so that the commissioning of a second cavern in 1979 increased the storage throughput to 75,000 tonnes per year. In 1990/91, both caverns were expanded by hot leaching and now have a combined storage capacity of 87,000 tonnes of liquid gas.

The loading and unloading facility was completely re-equipped in 1998 in order to increase the handling capacity and meet increased quality requirements. In addition to doubling the annual handling capacity, the conversion concept also included the



installation of a gas drying plant and state-of-the-art measurement, control and testing technology.

Liquid gas is supplied exclusively by rail tank cars and delivered by tank cars and road tankers. The Bernburg liquefied gas storage facility is an important supra-regional logistics center for energy supply thanks to its efficiency and favorable location.

Safety and profitability

There are numerous advantages in favor of underground storage of liquid gas:

- Because of its mineralogical properties, salt is gas-tight. Together with the appropriate borehole equipment, this ensures safe and loss-free storage and eliminates risks to the surface.
- Reservoirs in salt deposits can be produced more cheaply and operated more economically than large above-ground tank farms, which also consume considerable space.
- The storage product is optimally protected against operational incidents and against external hazards. This means that this type of storage is also more environmentally compatible than other methods, because dangers to the environment can be ruled out.

If additional evidence should still be required, there has not been a single incident in the liquid gas storage facility during the entire operating period to date.



The plant in figures

Thickness of the salt deposit	550m
Cavern depth	510m – 685m
Total capacity	87,000 tonnes
Unloading areas for rail tank cars (RTC)	2
Loading areas for RTCs and road tankers	2 each
Handling capacity (per loading or unloading areas)	40 tonnes/hour

About K+S Minerals and Agriculture GmbH

K+S Minerals and Agriculture GmbH bundles the potash, salt, disposal and transportation activities of K+S within Germany.

K+S considers itself a customer-focused, independent minerals company for the Agriculture, Industry, Consumers, and Communities segments and wants to grow the EBITDA to € 3 billion by 2030. Our more than 14,000 employees enable farmers to provide nutrition for the world, solutions that keep industries going, improve daily life for consumers and provide safety in the winter. We continually meet the growing demand for mineral products from production sites in Europe, North and South America as well as a worldwide sales network. We strive for sustainability because we are deeply committed to our responsibilities to people, environment, communities and economy in the regions in which we operate. Learn more about K+S at www.kpluss.com.

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