

Dismantling Germany's nuclear industry, piece by piece

July 30 2014, by Mathilde Richter



The control room of the Nuclear Power Plant in Obrigheim, Germany which is under deconstruction, taken on July 1, 2014

Eyes fixed on a screen, joystick in hand, the operator of a remote-controlled saw painstakingly dismantles metal rods at one of Germany's mothballed nuclear reactors.

Time-consuming and costly, the operation to methodically carve up the core of EnBW's Obrigheim reactor in the country's southwest is now more than half way through.

In total, 275,000 tonnes of machinery, pipes and other equipment that enabled the power station to operate for 37 years must be stripped down. Of that, almost one percent, or about 2,000 tonnes, is radioactive material.

Even as EnBW sees its days as a nuclear operator come to an end, it now envisions a future as an expert in nuclear scrapping.

Nuclear dismantling can prove to be a "new field of activity," said company spokesman Ulrich Schroeder, at a time when countries including Switzerland and Italy have also decided to end their reliance on atomic energy.

"We now have a real competence in dismantling, managing and recycling waste," said Schroeder.

Under Germany's "Energiewende" or energy transition, a phased exit from [nuclear power](#) and embrace of green energy, the entire site is expected to be disassembled by 2025, two decades after it stopped producing nuclear energy.

"Every step is carried out manually, remotely," site engineer Michael Hillmann told AFP at the control room of the power station nestled in the undulating Neckar valley.

What remains of the reactor is submerged under water in a room that hardly anyone enters, at least not without protective gear and not for more than 10 minutes at a time.



The Nuclear Power Plant in Obrigheim, Germany on July 1, 2014

The pieces are mechanically removed to a separate "packaging" room where they are stored in yellow casks designed to safely hold radioactive waste.

New inhabitants?

Ex-chancellor Gerhard Schroeder's centre-left government decided early last decade to phase out atomic power. The push was initially reversed by his conservative successor Chancellor Angela Merkel, who then revived it after Japan's 2011 Fukushima nuclear disaster.

Dismantling the Obrigheim reactor began in 2008 following a long preparatory stage which involved various authorities painstakingly planning and okaying every step of the process down to the last detail.

Each piece that is cut away is carefully recorded while the work is carried out in a stipulated order, with the aim of leaving behind an entirely safe site.

One day the now empty offices, warehouses and even the huge dome that housed the reactor could even interest new inhabitants, said Manfred Moeller, the site's operative manager.

EnBW, Germany's third-biggest power supplier, is cutting its teeth with Obrigheim.

Like its competitors, the operator has to gradually shutter all its nuclear power stations and dismantle them following the government's decision to turn its back on the energy source.



The former machine-hall of the Obrigheim Nuclear Power Plant in Germany

Two of the company's four other reactors were halted soon after the Japanese accident, while the other two still have several years to run.

Of the total nine still operating in Germany, EnBW's Neckarwestheim II reactor is set to be the very last to close by 2022.

Germany's nuclear power operators finance the dismantling through provisions set aside over years.

EnBW has put on the side more than seven billion euros (\$9.5 billion), its part in a total 30-billion-euro pot from Germany's four operators.



This photo taken on July 1, 2014 shows workers at the control room of the Nuclear Power Plant in Obrigheim, Germany

The company predicts it will have dismantled all its reactors by the

2040s, but questions remains over where the [radioactive waste](#) will be permanently stored.

The issue of where to put the waste has split Germany since the 1980s, which saw large protests near temporary storage sites. The hunt for a permanent waste depot has been relaunched under Merkel. In the meanwhile, the waste is held at temporary sites.

"We must have the possibility to get rid of waste," said Moeller. "That's part and parcel of the energy transition."

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