

Palawero

Research fireplace University of Stuttgart

In the course of the implementation of the research project PaLaWero (passive cooling of storage pool by heat pipe improvement), the Institute of Nuclear Energy and Energy Systems has extended the underground neutron laboratory by a 7.5 m high stack structure. The cylindrical experimental room in which the thermosiphons are guided is completely insulated and accessible via lateral openings in two working levels. At the same time, a tower-high access point was installed on the east side to enable the heat pipes to be replaced in one piece. The tower was designed as a double-shell structure consisting of an internally insulated steel cylinder and a load-bearing, outer hyperboloid-shaped rod shell. The bracing intermediate levels are also used as working levels. In order to control the air flow through the test room, the height of the roof can be varied by means of lifting cylinders.

Project details:

Year: 2017

Location: Stuttgart, Germany

Building owner:

Universitätsbauamt Stuttgart-Hohenheim

Client:

Services: Object and structural design

Other parties involved:

Stema Metallverarbeitungen GmbH & Co. KG

