



De-Watering Facility NEWA

Spent ion exchange resins that had been utilized in nuclear power plants for the purification of the primary coolant or fuel pool water are conveyed into storage containers by means of the GNS facility FAFNIR. The acceptance criteria of several interim storage facilities and of the German repository "Schachtanlage KONRAD" contain a limit of 1 per cent of free water in the waste packages. In order to ensure that this limit is not exceeded GNS developed the de-watering facility NEWA, a modular facility which can easily be adapted to local terms.

Process

The de-watering starts earliest one week after filling of a package. This ensures that all water remaining in the package has settled. The facility is based on the vacuum conveyor principle.

De-Watering is being performed in two stages. As a first step the main volume of water is being extracted whilst the flasks are vented. After an additional time of at least one hour for settlement of the remaining water the container is being extracted again. Until less than 0.1 l of water can be removed. The facility is operated from a control panel with a PLC.