



Waste Conditioning Plant FAFNIR

During operation of nuclear power plants ion exchange resins (nodular resins) are being utilized for purification of the water within the primary circuit and the spent fuel pool. These resins get loaded with radionuclides and therefore have to be disposed of as radioactive waste. The GNS waste processing plant FAFNIR was designed to convey spent ion exchange resins from the power plants storage tanks or other containers used for the interim storage of the resins into casks and containers suitable for a repository. The facility is mobile and can easily be adapted to local terms because of its modular composition.



Process

The resins will be conveyed from the storage tank or container to a volumetric dosing tank first and then from the dosing tank to the cask. In Germany almost all of the resins are being filled into shielded casks of the MOSAIK® type, a GNS product as well. The cask will be filled in several steps until approx. 90 % of its nominal volume is equalled. After filling the casks will be de-watered using the facility NEWA.