



GNS Casks and Quivers foster a prompt Defueling in Germany

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With its packaging system comprising CASTOR® casks and the GNS IQ® Integrated Quiver System, GNS offers the comprehensive solution for the safe packaging of all irradiated fuel assemblies and damaged fuel rods from the operation of the German nuclear power plants. The casks and quivers designed and manufactured by GNS allow loading after a particularly short decay time and thus a speedy entry into dismantling. With the now concluded contract on the last three quivers for the Isar nuclear power plant of PreussenElektra all quivers for the German market have been commissioned. This sums up to a total of 65 quivers for the defueling of all nuclear power plants of the four large German utilities.

Spent fuel casks by GNS of the CASTOR® type have been used for more than two decades in all German power plants for the disposal of irradiated fuel assemblies. More than 1200 of these transport and storage casks have now been loaded in Germany and are stored in interim storage facilities.

Complete defueling is an important milestone during the decommissioning of a nuclear power plant. In addition to the irradiated fuel assemblies, also the damaged fuel rods that occasionally occur during operation are collected in the storage pool until the end of operation. For the safe packaging of these damaged fuel rods, GNS, together with its subsidiary Höfer & Bechtel, has developed the GNS IQ® Integrated Quiver System that allows the damaged fuel rods to be packed in hermetically sealed quivers directly into the regular CASTOR® spent fuel casks.

Using these GNS fuel rod quivers, the PWR plants in Biblis and Unterweser as well as the BWR plant in Krümmel have already been completely defueled. A total of 21 quivers has been dispatched at these sites by the GNS teams and is now stored in CASTOR® casks in the on-site interim storage facilities.

With the conclusion of the contract on the last three quivers for the PreussenElektra nuclear power plant Isar, which is to be shut down by the end of 2022, all 65 quivers, which are necessary for the complete defueling of all nuclear power plants of the four large German utilities, have now been commissioned and scheduled.

Lothar Mertens, divisional manager responsible for the nuclear fuel cycle at PreussenElektra: "Unit 2 of our Isar nuclear power plant is one of the last three nuclear power plants in Germany that will still be in operation until the end of 2022. With the help of the GNS casks and quivers already proven in other power plants, we will remove the fuel rods collected in the two units Isar 1 and Isar 2 from the pools in the shortest possible time and thus defuel the entire power plant site. This already provides us the necessary scheduling certainty for a speedy dismantling today."

However, the use of the GNS fuel disposal system is not limited to Germany alone, explains Dr. Linus Bettermann, Head of Sales Department Spent Fuel Management at GNS: "Our GNS spent fuel casks and quivers for damaged fuel are an established time-saving and reliable disposal solution for both PWR and BWR plants in Germany. Using the same technology, we also offer our international customers the possibility to achieve complete defueling of their nuclear power plants swiftly after shutdown".