Transport licence granted for repatriation of German reprocessing waste from England

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In spring 2020, GNS Gesellschaft für Nuklear-Service mbH plans on behalf of the German nuclear power plant operators the first of three obligatory return transports with radioactive residues from the reprocessing of German fuel elements at Sellafield in England. The Federal Office for the Safety of Nuclear Waste Management (BASE) today issued the required transport licence for the transport to the federally owned interim storage facility in Biblis in accordance with § 4 AtG (German Atomic Energy Act).

The transport will lead from the reprocessing plant in Sellafield via English and German seaports to the interim storage facility in Biblis. It comprises six CASTOR® HAW28M casks specially designed for this purpose.

The federal BGZ Gesellschaft für Zwischenlagerung, which operates the Biblis interim storage facility, has already received the storage licence according to § 6 AtG for the storage of the vitrified reprocessing waste from the Federal Office for Nuclear Waste Disposal Safety (BfE/Designation of BASE until 31 December 2019) at the end of December 2019.

GNS information portal on repatriation

GNS has compiled comprehensive information on the return of German reprocessing waste and the upcoming transports on a special website. Here you can find further background information, photos and graphics as well as contact persons of the companies involved:

rueckfuehrung.gns.de

Background Information:

Reprocessing - Obligation to repatriate

From 1976 to 2005 the reprocessing of fuel elements used for energy generation was a legally prescribed disposal method in Germany, and until 1994 it was even the only possible and legal way. To this end, German nuclear power plant operators had concluded comprehensive contracts with the reprocessing plants in La Hague/France and Sellafield/England. In addition to recyclable nuclear fuel, reprocessing also generates radioactive waste. The companies involved have contractually committed themselves to take back their waste. In addition, there are binding international agreements between Germany and both France and Great Britain that ensure that the waste is taken back. In accordance with the German Atomic Energy Act (Section 9a, Paragraph 2a), the utilities must ensure that the remaining radioactive waste from reprocessing is taken back and transported to interim storage facilities in Germany.

The interim storage site at Biblis in Hesse, like Isar in Bavaria and Brokdorf in Schleswig-Holstein, the destinations of the two further transports from Sellafield, have been defined in a broad political consensus on the basis of a concept drawn up by the Federal...
Environment Ministry in 2015. This also includes a transport of intermediate-level reprocessing waste from La Hague to the interim storage facility in Philippsburg. The nuclear power plant operators have commissioned GNS Gesellschaft für Nuklear-Service mbH, which cooperates with other companies, to organise and carry out these repatriation transports.

**Safe packaging**

The radioactive waste produced during the reprocessing of German fuel elements was processed into a stable glass product and safely enclosed in stainless steel canisters. For transport and subsequent interim storage, 28 of these canisters are loaded into each of the 120 tonne CASTOR® HAW28M safety casks of GNS. This proven cask type has already been used in several return transports from France to Germany and from England to Switzerland.

**By vessel and train to Biblis**

The casks are first transported by rail from the reprocessing plant at Sellafield to an English seaport, where they are loaded onto a dedicated vessel for safe sea transport. After the passage by ship from England, the casks are transferred to rail wagons in a German seaport. The train with the six casks will travel from the port directly to Biblis, where it will shunt over the siding to the power plant site. There the containers will be unloaded and taken to the interim storage building. The cranes and vehicles used for this purpose are designed for handling empty and loaded spent fuel casks of comparable dimensions and have already proven themselves many times over at the site.

In the interim storage facility, the casks are temporarily placed in the storage area. In a final step, the additional lid required for interim storage is fitted. Then the casks are moved to their storage position in the storage area and connected to the leak monitoring system.

The suitability of all the equipment used at the Biblis site was again demonstrated by all the players during a "cold handling" with official participation last autumn.

**Radiation protection and safety**

Compliance with all legally prescribed limits was a basic prerequisite for the granting of the transport licence as well as the storage licence issued in December 2019 and therefore had to be comprehensively demonstrated already during the application procedure. The measurements carried out by independent experts at Sellafield on the loaded containers have confirmed that the expected radiation exposure of the population, transport and accompanying personnel during the entire transport is far below the legal limits and will therefore not pose any danger to people or the environment.

During the transfer from vessel to railway wagons, measurements are again taken on all containers for confirmation before the last stage by rail can be started.

Strict requirements from national and international regulations apply to the securing of the transport. To ensure their effectiveness, security measures are subject to secrecy. This also includes that exact transport dates and routes are not published in advance.

The respective countries and the interior authorities of the respective federal states are responsible for securing transport operations. In Germany these are on the one hand the state police authorities and on the other hand the federal police for rail transport.
This press release contains forward-looking statements made as of the date of its publication. These statements may not be consistent with subsequent events not covered in this press release.

Contacts:

GNS Gesellschaft für Nuklear-Service mbH:
Michael Köbl
Head of Communications and Marketing GNS-Group
T: +49 (0)201 109-1444 - E: michael.koebl@gns.de

BGZ Gesellschaft für Zwischenlagerung mbH:
Burghard Rosen
Head of Media and Site Communication BGZ
T: +49 (0)201 2796-1480 - E: Burghard.Rosen@bgz.de

RWE AG:
Jan Peter Cirkel
Press Spokesman RWE AG
T: +49 (0)201 12 28713 - E: jan-peter.cirkel@rwe.com