



GNS Gesellschaft für Nuklear-Service mbH · Postfach 10 12 53 · 45012 Essen

Document Control Desk  
Director, Division of Fuel Management  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
USA

Our reference: T1213-CO-00005  
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Date: 01/14//2021

**Subject:** Application for 10 CFR 71 Approval for the CASTOR® geo69 Spent Nuclear Fuel Transportation Package (Docket No. 71-9383)

**Reference:** Summary of Meeting with NRC staff held September 11, 2019 (ADAMS Accession No. ML20027A674)

As discussed in the above-referenced pre-application meeting, GNS Gesellschaft für Nuklear-Service mbH is submitting an application requesting NRC approval of its CASTOR® geo69 spent fuel transportation package design in accordance with 10 CFR 71, Subpart D. This application is based on the enclosed "Safety Analyses Report (SAR), Type B(U)-F Transport Package CASTOR® geo69" (GNS Report number 1014-SR-00001), Revision 0.

The enclosed SAR fulfills the requirements of §71.33 and §71.35. For format and content of the SAR, GNS has followed the requirements set forth in Regulatory Guide 7.9 "Standard Format and Content of Part 71 Applications for Approval of Packages for Radioactive Material" Revision 2. GNS also recognizes the NRC's current guidance for spent fuel transportation package applications, available in NUREG-2216, "Standard Review Plan for Transportation Packages for Spent Fuel and Radioactive Material," which was published in August 2020. However, because NUREG-2216 was issued during the late stages of the CASTOR® geo69 SAR development, the SAR is based on the previous guidance in NUREG-1617, "Standard Review Plan for Transportation Packages for Spent Nuclear Fuel" (and applicable Interim Staff Guidance). The guidance in NUREG-2216 was considered to the extent practical within the constraints of the project schedule.

A quality assurance program description as required by §71.37 was previously submitted to the NRC on the July 10, 2020 by letter T1213-CO-00002 (NRC Docket-No.: 07100967).

The CASTOR® geo69 package is intended to be used for transportation of up to 69 high burnup BWR fuel assemblies in a double containment package design. In doing so, the inner containment is formed by a canister based design using a multiple re-openable closure, while the outer containment consists of the well-known CASTOR® cask design.

*NM5520*

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Dr.-Ing. Jens Schröder



The CASTOR® geo69 package SAR contains certain information that is proprietary, confidential and a trade secret to GNS. Therefore, this application includes a non-proprietary version of the SAR together with an affidavit prepared pursuant to 10 CFR 2.390 providing the basis for withholding of the GNS-proprietary information from public disclosure.

In order to meet the needs of our clients, GNS requests approval of this package design by June 30, 2022.

Should the NRC staff require additional information to support review of this application, please do not hesitate to contact Mr. Dominik Bussmann at +49 201 109 1891, or by email at dominik.bussmann@gns.de.

Sincerely,

*ds*  
GNS Gesellschaft für Nuklear-Service mbH

A handwritten signature in blue ink, appearing to read "J. Schröder".

**Dr.-Ing. Jens SCHRÖDER**  
- Chief Technology Officer (CTO) -

A handwritten signature in blue ink, appearing to read "S. Klappert".

**Dr.-Ing. Sascha KLAPPERT**  
- Divisional Head of Engineering -

Enclosure 1: Affidavit Pursuant to 10 CFR 2.390  
Enclosure 2: SAR 1014-SR-00001 Rev. 0, Proprietary Version  
Enclosure 3: SAR 1014-SR-00001 Rev. 0, Non-Proprietary Version

# APOSTILLE

(Convention de La Haye du 5 octobre 1961)

**1. Country / Land:**

Federal Republic of Germany / Bundesrepublik Deutschland

**This public document / Diese öffentliche Urkunde**

**2. has been signed by / ist unterschrieben von**

Attorney-at-Law Dr. Maximilian Ziegler / Rechtsanwalt Dr. Maximilian Ziegler

**3. acting in the capacity of / in seiner Eigenschaft als**

official representative of Notary Public Dr. Joachim Gores in Essen/amtlich bestellter Vertreter  
des Notars Dr. Joachim Gores in Essen

**4. bears the seal / sie ist versehen mit dem Siegel**

of the Notary Public Dr. Joachim Gores in Essen / des Notars Dr. Joachim Gores in Essen

## Certified / Bestätigt

5. at / in E s s e n

6. the / am 15. JAN. 2021

7. by / durch the President of the Regional Court Essen /  
die Präsidentin des Landgerichts Essen

8. No./ unter Nr. 91 E 1 / *Sdh 113/2021*

9. Seal / Stamp Siegel / Stempel:



10. Signature / Unterschrift:

In Vertretung

*[Handwritten Signature]*

Lothar

Vizepräsident des Landgerichts

**AFFIDAVIT**

**PURSUANT TO 10 CFR 2.390**

I, Dr.-Ing. Jens SCHRÖDER, depose and say that I am the Chief Technology Officer (CTO) of GNS Gesellschaft für Nuklear-Service mbH (a company duly organized under the German Law, having its seat at Frohnhauser Strasse 67, 45127 Essen, Germany), duly authorized to execute this affidavit.

I, Dr.-Ing. Sascha KLAPPERT, depose and say that I am Divisional Head of Engineering of GNS Gesellschaft für Nuklear-Service mbH (a company duly organized under the German Law, having its seat at Frohnhauser Strasse 67, 45127 Essen, Germany), duly authorized to execute this affidavit.

We, Dr.-Ing. Jens SCHRÖDER and Dr.-Ing. Sascha KLAPPERT, have reviewed or caused to have reviewed the information which is identified as confidential and referenced in the paragraph below. We are submitting this affidavit in conformance with the provisions of 10 CFR 2.390 of the Commission's regulations for withholding this information.

The information sought to be withheld from public disclosure is contained in the document mentioned below:

- Safety Analyses Report (SAR), Type B(U)-F Transport Package CASTOR® geo69, GNS Report number 1014-SR-00001, Revision 0, Docket 71-9383, (Proprietary Version).

This document is attached as Enclosure 2 to our letter (ref. T1213-CO-00005) addressed to the U.S. Nuclear Regulatory Commission.

We have personal knowledge of the criteria and procedures utilized by GNS Gesellschaft für Nuklear-Service mbH in designating information as a proprietary trade secret, privileged or as confidential commercial or financial information.

Pursuant to the provisions of paragraph (b) (4) of Section 2.390 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure, included in the above referenced document, should be withheld.

- (1) The information sought to be withheld from public disclosure involves certain design details associated with the SAR analyses and SAR drawings of the CASTOR® geo69 package design, which are owned and have been held in confidence by GNS Gesellschaft für Nuklear-Service mbH.

- (2) The information is of a type customarily held in confidence by GNS Gesellschaft für Nuklear-Service mbH and not customarily disclosed to the public. GNS Gesellschaft für Nuklear-Service mbH has a rational basis for determining the types of information customarily held in confidence by it.
- (3) The information is being transferred to the Commission in confidence under the provisions of 10 CFR 2.390 with the understanding that it is to be received in confidence by the Commission.
- (4) The information, to the best of our knowledge and belief, is not available in public sources, and any disclosure to third parties has been made pursuant to regulatory provisions or confidentiality agreements which provide for maintenance of the information in confidence.
- (5) Public disclosure of the information is likely to cause substantial harm to the competitive position of GNS Gesellschaft für Nuklear-Service mbH because:
  - (a) A similar product is manufactured and sold by competitors of GNS Gesellschaft für Nuklear-Service mbH.
  - (b) Development of this information by GNS Gesellschaft für Nuklear-Service mbH required expenditure of considerable resources. To the best of our knowledge and belief, a competitor would have to undergo similar expense in generating equivalent information.
  - (c) In order to acquire such information, a competitor would also require considerable time and inconvenience related to the development of a design and analysis of a cask for the dry storage and transport of spent nuclear fuel.
  - (d) The information required significant effort and expense to obtain the licensing approvals necessary for application of the information. Avoidance of this expense would decrease a competitor's cost in applying the information and marketing of the product to which the information is applicable.
  - (e) The information consists of design features, analyses methods and calculation results related to the design and analyses of a cask for the dry storage and transport of spent fuel, the application of which provide a competitive economic advantage. The availability of such information to competitors would enable them to modify their product to unfairly get a better competitive position with GNS Gesellschaft für Nuklear-Service mbH, take marketing or other actions to improve their product's position or impair the position of GNS Gesellschaft für Nuklear-Service mbH's product, while avoiding the expense of developing similar data and analyses in support of their processes, methods or apparatus.

- (f) In pricing GNS Gesellschaft für Nuklear-Service mbH's products and services, significant research, development, engineering, analytical, licensing, quality assurance and other costs and expenses must be included. The ability of GNS Gesellschaft für Nuklear-Service mbH's competitors to utilize such information without similar expenditure of resources may enable them to sell at prices reflecting significantly lower costs.

Date:

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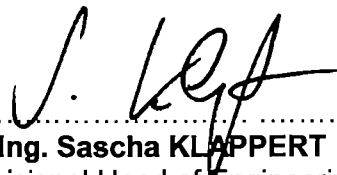


**Dr.-Ing. Jens SCHRÖDER**  
- Chief Technology Officer (CTO) -

**GNS Gesellschaft für  
Nuklear-Service mbH**

Date:

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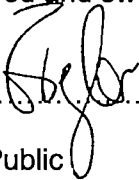


**Dr.-Ing. Sascha KLAPPERT**  
- Divisional Head of Engineering -

**GNS Gesellschaft für  
Nuklear-Service mbH**

Number 6 of Notary's Register of 2021

Subscribed and sworn to me before this 13<sup>th</sup> day of January, 2021.



Notary Public

