

71-9253



Public Service  
Company of Colorado

16805 WCR 19 1/2; Platteville, Colorado 80651

March 31, 1993  
Fort St. Vrain  
Unit No. 1  
P-93033

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

ATTN: Mr. Charles MacDonald, Chief  
Transportation Branch

Docket No. 71-9253

SUBJECT: Application for Certification of New Irradiated Fuel  
Transport Package for Fort St. Vrain, Model No. TN-FSV

Dear Mr. MacDonald:

This letter is the Application for Certification of the proposed new Fort St. Vrain (FSV) irradiated fuel transport package (TN-FSV), which is being submitted in accordance with 10 CFR 71.31. Please find enclosed eight (8) copies of the Safety Analysis Report (SAR) for the proposed new TN-FSV. This SAR contains a detailed description of the transport package, as required by 10 CFR 71.33, and an evaluation of the transport package, as required by 10 CFR 71.35. Identification of the applicable quality assurance programs for the TN-FSV is included in the Attachment to this letter, per 10 CFR 71.37.

The SAR presents the evaluation of a Type B(U), Fissile Class III, irradiated fuel transport package developed by Transnuclear, Inc., including a description of the design features and the safety analyses that demonstrate the TN-FSV complies with applicable requirements of 10 CFR 71. The format and content of this SAR follow the guidelines of Regulatory Guide 7.9.

The TN-FSV package will be used to transport dry canistered High Temperature Gas-Cooled Reactor (HTGR) spent fuel that was irradiated in the FSV reactor. The HTGR fuel is presently stored on-site at the FSV Independent Spent Fuel Storage Installation (ISFSI) in carbon steel containers, each containing six fuel elements. Shipments will occur by highway travel with one loaded container installed in the TN-FSV cask. The TN-FSV is a right circular cylinder with steel containment, lead shielding, and wood filled impact limiters.

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The SAR submitted herewith is intended to be complete with the exception of some impact limiter testing requested by the NRC staff to confirm the analyses of impact limiter performance in the SAR. Testing of the impact limiters will be performed, as discussed in meetings between members of PSC, Transnuclear, Inc. and the NRC staff which took place on December 17, 1992 and March 10, 1993. Upon completion of this testing, the SAR will be updated to include the results.

If there are any questions regarding this application for certification of the TN-FSV package, please contact Mr. M. H. Holmes at (303) 620-1701.

Sincerely,

  
D. W. Warembourg  
Decommissioning Program Director

DWW/JRJ

Attachment  
Enclosures

cc: Mr. Robert M. Bernero, Director  
Office of Nuclear Material Safety and Safeguards

Regional Administrator, Region IV

Mr. Ramon E. Hall, Director  
Uranium Recovery Field Office

Mr. Robert M. Quillin, Director  
Radiation Control Division  
Colorado Department of Health

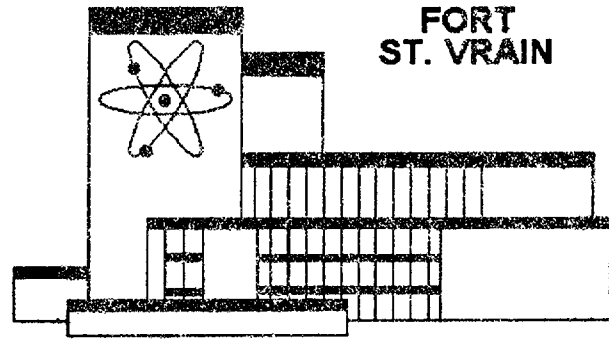
Attachment to  
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Quality Assurance for the TN-FSV Irradiated Fuel  
Transport Package

Public Service Company of Colorado (PSC) has an approved quality assurance program which governs activities involving radioactive material transportation packages. The NRC recently issued Quality Assurance Program Approval for Radioactive Material Packages No. 0346, Revision No. 5, in NRC letter MacDonald to Crawford, dated January 27, 1993 (G-93016). This approval expires on December 31, 1994. PSC plans to apply this approved quality assurance program to activities associated with the new TN-FSV package.

Transnuclear Inc.'s quality assurance program is being applied to the design of the TN-FSV package, and will be applied to the fabrication, assembly, and fabrication testing of the TN-FSV package. This is Transnuclear Inc.'s Quality Assurance Program Approval for Radioactive Material Package No. 0250, Revision No. 3, which has been approved by the NRC for activities conducted under the applicable criteria of 10 CFR 71, Subpart H. The expiration date of Transnuclear Inc.'s Quality Assurance Program Approval is June 30, 1995.

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Regulatory Docket File



**SAFETY ANALYSIS REPORT**  
for the  
**TRANSNUCLEAR - FORT ST. VRAIN PACKAGING**

**Docket #71-9253**