

50-255/50-261/50-324/325



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

50-400
71-9001
72-6/72-7/
72-1004
M-39

December 27, 1995

Ms. Fawn Shillinglaw
1952 Palisades Drive
Appleton, Wisconsin 54915

SUBJECT: YOUR LETTER TO THE NUCLEAR REGULATORY COMMISSION REGARDING TRANSPORT AND STORAGE OF SPENT FUEL

Dear Ms. Shillinglaw:

As the lead manager for dry cask issues in the Office of Nuclear Reactor Regulation (NRR), Nuclear Regulatory Commission (NRC), I am responding to your letter dated November 17, 1995, to Mr. Haughney.

You asked whether a NUHOMS-07P canister had been used inside an IF-300 transport cask to transfer spent fuel to an independent spent fuel storage installation (ISFSI) and, if so, how this was done. You also asked whether there was a transfer cask for the NUHOMS-07P canister as there is for the NUHOMS-24P canister.

The licensee for the H.B. Robinson plant did transfer fuel from the fuel pool to their ISFSI using a NUHOMS-07P canister inside an IF-300 transport cask. The NUHOMS 07P canister was designed for use with the IF-300 transport cask. The licensee used plant-specific procedures to perform this activity. Because the NUHOMS-07P canister was designed to fit inside an IF-300 transport cask, there is not a separate transfer cask design.

With regard to your questions concerning the use of the IF-300 cask for transporting fuel between sites, in this application the transport basket specifically approved for use with the cask is employed. The NUHOMS-07P canister is not approved for use for this purpose. In general terms, the operations required to unload these transport casks are similar to those for dry storage casks. However, the specific activities that are required will vary depending on the cask design. For example, the IF-300 cask is bolted closed while the NUHOMS-24P dry storage cask is welded closed. Therefore, while considerable experience has been gained in unloading transportation casks, not all of this experience will be applicable to dry storage casks.

To date, no dry storage casks from an ISFSI have been unloaded. Because an inert gas is used to control degradation of the fuel in the storage casks, NRC does not expect significant degradation of the fuel due to transfers into and out of dry storage. Under normal circumstances, unloading a cask into a spent fuel pool will not cause the release of a significant amount of radioactive contamination into the pool. If, for some reason, there was a significant release into the pool, it would not be expected to present a significant hazard to workers in the area. The licensee would use its procedures to limit the doses received and to clean up the contamination. The release of contamination beyond the building containing the fuel pool would not be expected.

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F. Shillinglaw

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I trust that the information I have provided addresses your questions. Please contact Mr. Andrew Kugler of my staff if you have additional questions or concerns.

Sincerely,

Gail H Marcus

Gail H. Marcus, Project Director
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-261, 50-324/325,
50-400, 50-255, 71-9001, 72-6,
72-7, 72-1004
Project No. M-39

F. Shillinglaw

- 2 -

I trust that the information I have provided addresses your questions. Please contact Mr. Andrew Kugler of my staff if you have additional questions or concerns.

Sincerely,

Original Signed By:

Gail H. Marcus, Project Director
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-261, 50-324/325,
50-400, 50-255, 71-9001,
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Project No. M-39

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Nov 17, 1995
1952 Palisades Dr.
Appleton, WI 54915

Dear Mr. Haughey NRC,

Several reports given at the yearly HLW Conferences are of interest:

① 1994 - by you and Mr. Bernaro on Certifying casks for storage and Transport says, "the IF-300 transport cask has been used as a transfer cask for spent fuel transfer operation from pool storage to dry storage on reactor sites," and it says the IF-300 rail package was used to transfer spent fuel from Robinson and Brunswick to Shearon Harris.

② 1992 - report on NUHOMS caskets says "Nuhoms O7P - the smaller casket was designed to fit within the IF-300 shipping cask owned by CP+L.

③ 1990 - report on "Integrated SF and Transport systems using NUHOMS" - "a OSC to be used for direct transfer of fuel from the pool to the MRS could be designed with ported shield plug and cover plate, with or without seal welds, to facilitate downloading"

My question is, has the NUHOMS O7P been used inside the IF-300 transport cask to transfer fuel to an ISFSI? If so, how was this done? Do they use transport cask for the O7P as for the 24 assembly NUHOMS, or was there none developed then?

It is my understanding that the IF-300 was used to ship Brunswick fuel to Shearon Harris - in this situation not as a transfer cask to dry storage, but as a transport cask to another pool across the state. Was the NUHOMS casket used in this cask for this transport? If so, how was it sealed? (welded, ported, what?) What parts of the operation of taking fuel out of this casket are related to unloading the similar VSC casket at Palisades? It is my understanding that no fuel from a dry storage cask has ever been unloaded or put back into a pool. Is that correct? How does NRC see a wet to dry, and back to wet, and possibly dry again, situation as far as degradation and contamination in unloading?
Tawn Shillinglaw

95-1230-114

Ms Fawn Shillinglaw
1952 Palisades Dr
Appleton WI
54915-1023



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Mr. Charles Haughey
U.S. NRC
Mail Stop 06-F18
Washington DC
20555-0001