

September 14, 2006
GO2-06-119

Attn: Document Control Desk
Director, Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

**Subject: COLUMBIA GENERATING STATION, DOCKET NOS. 50-397/ 72-35
REQUEST FOR EXEMPTION FROM CERTAIN REQUIREMENTS OF 10
CFR 72.212 AND 72.214 FOR DRY CASK STORAGE**

Reference: Letter dated June 7, 2005, Robert Lewis (NRC) to K. P. Singh (Holtec),
"Amendment No. 2 to Certificate of Compliance No. 1014 For the Holtec
International Hi-Storm 100 Cask System"

Dear Sir or Madam:

Pursuant to 10 CFR 72.7, Energy Northwest requests an exemption from the requirements of 10 CFR 72.212(a), 72.212(b)(2)(i), 72.212(b)(7) and 72.214. These regulations require, in part, compliance to the terms and conditions of the Holtec International (Holtec) Certificate of Compliance (CoC) 72-1014 for the HI-STORM 100 casks currently in use on the Columbia Independent Spent Fuel Storage Installation (ISFSI). Specifically, an exemption is requested to deviate from the HI-STORM 100/ISFSI pad interface coefficient of friction required in Appendix B of Amendment 1 to CoC 72-1014 under environmental conditions that may degrade the pad/cask interface (such as due to icing).

In lieu of this requirement, Energy Northwest requests to apply guidance already approved by the NRC in Amendment 2 to CoC 72-1014, referenced above, to casks that are fabricated and used at Columbia in accordance with Amendment 1.

Icing conditions on the Columbia ISFSI pad can generally occur between November and March. It is therefore requested that this exemption be granted by October 31, 2006 with an effective date to be within 60 days of approval.

Details of Energy Northwest's need and justification for the issuance of an exemption are included in the attachment to this letter. There are no new commitments being made in this letter.

UNISSO1

**REQUEST FOR EXEMPTION FROM CERTAIN REQUIREMENTS OF 10 CFR 72.212
AND 72.214 FOR DRY CASK STORAGE**

Page 1

Should you have any questions concerning this submittal, please contact Greg Cullen
(509) 377-6105.

Respectfully,



DK Atkinson
Vice President, Nuclear Generation
Mail Drop PE08

Attachment: Request for Exemption from Certain Requirements of 10 CFR 72.212 and
72.214 for Dry Cask Storage

cc: BS Mallett – NRC RIV
BJ Benney – NRC NRR
NRC Senior Resident Inspector/988C
RN Sherman – BPA/1399
WA Horin – Winston & Strawn

REQUEST FOR EXEMPTION FROM CERTAIN REQUIREMENTS OF 10 CFR 72.212 AND 72.214 FOR DRY CASK STORAGE

Attachment

Page 1 of 3

1.0 Request for Exemption

Pursuant to 10 CFR 72.7, Energy Northwest requests an exemption from the requirements of 10 CFR 72.212(a), 72.212(b)(2)(i), 72.212(b)(7) and 72.214. These regulations require, in part, compliance to the terms and conditions of the Holtec Certificate of Compliance (CoC) 72-1014 which currently supports the casks on the Columbia ISFSI. Specifically, an exemption is requested to deviate from Section 3.4.3.a of Appendix B of CoC 72-1014 (Amendment 1) for the HI-STORM 100/ISFSI pad interface coefficient of friction during environmental conditions that may degrade the pad/cask interface friction (such as due to icing). In lieu of this requirement, Energy Northwest would perform an analysis consistent with that granted by the NRC in Amendment 2 of the CoC (i.e., Appendix B, Section 3.4.3.b). This exemption would apply to all casks fabricated and used in accordance with Amendment 1 of the Holtec CoC 72-1014 on the Columbia Independent Spent Fuel Storage Installation (ISFSI).

2.0 Background

On October 6, 2003, the NRC issued Information Notice 2003-16, "Icing Conditions Between Bottom of Dry Storage System and Storage Pad." This Information Notice provided details of a condition that was considered outside of the design basis at the Main Yankee ISFSI. Energy Northwest evaluated the condition discussed in the Information Notice and determined the casks utilized at Columbia were susceptible to the same phenomena. Based on this determination, Energy Northwest has developed compensatory measures during cold weather conditions (i.e., monitoring, operator walkdowns, de-icing, clearing a pathway on the ISFSI for draining) to maintain the friction coefficient in accordance with Amendment 1 to CoC 72-1014.

Currently spent fuel is stored in 15 freestanding casks on the Columbia ISFSI in accordance with Amendment 1 to CoC 72-1014. Section 3.4.3.a of Appendix B of this CoC requires that the Coulomb friction coefficient for the HI-STORM 100/ISFSI pad interface be at least 0.53 under all conditions.

On June 7, 2005, the NRC approved Amendment 2 to HOLTEC CoC 72-1014 which, among other changes, added the following guidance to Section 3.4.3.b of Appendix B of CoC 72-1014:

For free-standing casks, under environmental conditions that may degrade the pad/cask interface friction (such as due to icing) the response of the casks under the site's Design Basis Earthquake shall be established using the best estimate of the friction coefficient in an appropriate analysis model. The analysis should demonstrate that the earthquake will not result in cask tipover or cause a cask to fall off the pad. In addition, impact between casks should be precluded, or should be considered an accident for which the maximum g-load experienced by the stored fuel shall be limited to 45 g's.

REQUEST FOR EXEMPTION FROM CERTAIN REQUIREMENTS OF 10 CFR 72.212 AND 72.214 FOR DRY CASK STORAGE

Attachment

Page 2 of 3

3.0 Technical Considerations

Energy Northwest requests that the allowance authorized in Amendment 2 to section 3.4.3.b of Appendix B be applied to the casks currently fabricated and used in accordance with Amendment 1 to CoC 72-1014 on the Columbia ISFSI. Amendment 2 to CoC 72-1014 involves a number of other changes in the design of the HOLTEC HI-STORM 100 casks and therefore, could not be applied in whole to the casks currently licensed under Amendment 1.

Similar to that approved in Amendment 2 of the CoC, Energy Northwest would use the best estimate of the friction coefficient in an appropriate analysis model for establishing the safe response of casks under Design Basis Earthquake (DBE) conditions. This would apply only under environmental conditions that could degrade the pad/cask interface on the Columbia ISFSI (such as icing). Prior to eliminating the need for compensatory measures, Energy Northwest would demonstrate through an appropriate analysis model that the DBE will not result in a cask tipover or cause a cask to fall off the ISFSI pad. In addition, the analysis would determine that either the casks do not impact each other or if an impact does occur, a maximum g-load experienced by the stored fuel will be limited to 45 g's and treated as an accident.

In comparing the differences between the casks and pads designed for each amendment, there are no appreciable differences that would warrant concern regarding the use of this analytical approach for Amendment 1 casks. In both the Holtec submittal and the subsequent NRC safety evaluation there were no expressed concerns or limitations associated with the HI-STORM cask design that was assumed in development of the added guidance in Section 3.4.3.b of Appendix B of the CoC. In addition, there are no other unique design considerations currently associated with the existing casks fabricated and used under Amendment 1 of the CoC on the Columbia ISFSI that would suggest that the use of the guidance approved in Amendment 2 would be inappropriate. With either cask design, the analysis method to be used would demonstrate the safe use of the casks under DBE conditions.

Since the analysis would demonstrate that a cask would not tip over, fall off the ISFSI pad, or else impact other casks beyond the current design limit of 45 g's under environmental conditions that degrade the pad/cask interface, a comparable level of safety would be maintained by granting this exemption request.

4.0 Regulatory Considerations

Columbia is authorized to store spent fuel on an ISFSI per 10 CFR 72.210 which provides a general license to store spent fuel in an ISFSI at reactor sites as long as the Part 50 reactor license remains in effect. Columbia is currently licensed under 10 CFR Part 50 in accordance with Operating License NPF-21, Docket No. 50-397, issued December 20, 1983.

REQUEST FOR EXEMPTION FROM CERTAIN REQUIREMENTS OF 10 CFR 72.212 AND 72.214 FOR DRY CASK STORAGE

Attachment

Page 3 of 3

The specific requirements for granting exemptions to 10 CFR Part 72 licensing requirements are set forth in 10 CFR 72.7, Specific Exemptions, which reads as follows:

The Commission may, upon application by any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest.

As discussed above, and as endorsed by the NRC in Amendment 2 to CoC 72-1014, use of an appropriate analysis model that assumes the best estimate of friction coefficient under the environmental conditions that degrade the cask/pad interface to demonstrate the safe storage of spent fuel during a design basis earthquake in lieu of requiring a friction coefficient of 0.53 will not endanger life or property or the common defense and security.

In addition, eliminating the requirement to implement unnecessary compensatory measures would free Operators to be more responsive to other duties as necessary to ensure continued safe operation of the plant and would therefore, be in the public's best interest.

5.0 Summary

In conclusion, because the requested exemption is authorized by law, will not endanger life or property or the common defense and security, and is in the public interest, Energy Northwest respectfully requests that, in accordance with 10 CFR 72.7 requirements, the NRC grant the requested exemption.