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| NRC FORM 699 (03-2013) | | U.S. NUCLEAR REGULATORY COMMISSION CONVERSATION RECORD | | DATE OF SIGNATURE <i>6-22-15</i> |
| NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU See below. | | DATE OF CONTACT 6/17/2015 | | TYPE OF CONVERSATION <input type="checkbox"/> E-MAIL <input checked="" type="checkbox"/> TELEPHONE <input type="checkbox"/> INCOMING <input checked="" type="checkbox"/> OUTGOING |
| E-MAIL ADDRESS | | TELEPHONE NUMBER (888) 447-9153 | | |
| ORGANIZATION Croft Associates and Missouri University Research Reactor (MURR) | | DOCKET NUMBER(S) 71-9337 | | |
| LICENSE NUMBER(S) | | CONTROL NUMBER(S) | | |
| SUBJECT Request for Additional Information Teleconference | | | | |
| SUMMARY NRC - Chris Allen, Clyde Morell, Dave Tarantino, Jon Woodfield, Zhian Li, Patti Silva and John Vera Croft Associates - Sarah Bryson MURR - John Ernst and Lee Juengermann <p>The call began at approximately 9 A.M. eastern standard time. The attached draft information requests were distributed prior to the teleconference. For the general description request, Croft identified how the keg studs are manufactured and who manufactures the replacement studs before asking the best method for formally providing this information. NRC staff stated that providing the manufacturing data on a licensing drawing was best, and that identifying the source of replacement studs in writing was sufficient. In addressing the materials information request, Croft explained the basis for requesting an equivalent to Loctite 270, and a discussion ensued about the use and function of Loctite 270 relative to the Model No. 3979A package. Subsequently, Croft suggested adding important characteristics for the material used in place of Loctite 270 to the licensing drawing. NRC staff felt this was acceptable. For the shielding question, Croft asked if a graph showing the percent difference between ANSI and ICRP dose conversion factors would satisfactorily address the NRC staff's question. NRC staff explained their reasons for requesting the information, and Croft responded that the numerous contents authorized for transport would make it difficult to perform the shielding analyses to address the</p> <p>Continue on Page 2</p> | | | | |
| ACTION REQUIRED (IF ANY) NRC staff will provide Croft a paper outlining NRC staff's views on shielding methods related to Croft's application. Croft will provide information which supported approval of the Model No. 3977A package for NRC staff's review. | | | | |
| <p>Continue on Page 3</p> | | | | |
| NAME OF PERSON DOCUMENTING CONVERSATION Chris Allen | | | | |
| SIGNATURE <i>William C. Allen</i> | | | | |

CONVERSATION RECORD (continued)

SUMMARY: (Continued from page 1)

information request. Croft offered to provide NRC staff with information associated with the approval of the Model No. 3977A package to determine if a similar approach could be employed for the Model No. 3979A package. NRC staff also offered to Croft provide a paper they felt relevant to this issue. The call ended at approximately 9:45 A.M. eastern standard time.

Request for Additional Information
Docket No. 71-9337
Model No. 3979A Package

By application dated January 30, 2015, Croft Associates Limited submitted an amendment request for the Model No. 3979A package. This request identifies information needed by staff in connection with its review of the application.

Each individual request for additional information describes information needed by the NRC staff for it to complete its review of the application to determine whether the applicant has demonstrated compliance with the regulatory requirements.

General Description Review

- 1.1 Identify the following information relative to the keg closure studs (item 16) on licensing drawing OC-6042:
 - a. the manufacturing techniques used to fabricate the keg closure studs, and
 - b. the source of replacement studs for package users.

There is very little detail about the keg closure studs on licensing drawing OC-6042. Consequently, staff is uncertain of how the closure studs are manufactured and from whom replacement studs are procured.

This information is needed to ensure compliance with 10 CFR 71.107.

Materials Review

- 2.1 Provide the following information for the requested change associated with Loctite 270:
 - a. the drawing(s) which show the use of Loctite 270, and
 - b. how "equivalent" fastening materials will be evaluated to ensure form, fit, and function as well as to preclude material degradation of other Safkeg components.

The use of Loctite 270 is cited in Section 8.2.3.2, paragraph 4, of the safety analysis report, but it is not defined on licensing drawing OC-6042, Rev. E. Revise drawing OC-6042 to identify the critical characteristics and constituents of Loctite 270 or an equivalent, and their importance to safety classification category per NRC guidance.

This information is needed to ensure compliance with 10 CFR 71.33.

Shielding Review

- 5.1 Modify the shielding evaluation to use the ANSI/ANS-6.1.1-1977 dose conversion factors (DCFs).

The DCFs in ICRP 51 are for calculating effective dose equivalent as well as dose to organs. These differ from dose rate which is measured at the time of shipment to determine compliance with the limits in 10 CFR Part 71. The 10 CFR Part 71 limits are in line with the dose rate quantities calculated using ANSI/ANS-6.1.1-1977 DCFs. The application addresses the difference between ICRP 51 DCFs and ANSI/ANS-6.1.1-1977 DCFs as a source of uncertainty. However, depending on the gamma energies, the uncertainties in dose rates could be significant. Thus, the applicant should use the ANSI/ANS-6.1.1-1977 DCFs in its shielding evaluation.

This information is needed to confirm compliance with 10 CFR 71.47 and 71.51.