

May 8, 2013

MEMORANDUM TO: Anthony H. Hsia, Deputy Director
Division of Spent Fuel Storage and Transportation, NMSS

FROM: Pierre Saverot, Project Manager **/RA/ M. Sampson for**
Licensing Branch
Division of Spent Fuel Storage and Transportation, NMSS

SUBJECT: SUMMARY OF APRIL 17, 2013, MEETING WITH ROBATEL
TECHNOLOGIES, LLC

Background

Robatel Technologies, LLC (Robatel) received a request for additional information (RAI) letter dated March 28, 2013, for the Model No. RT-100 package for which the application was accepted for technical review by letter dated December 6, 2012.

The meeting was noticed on March 29, 2013. The list of attendees and Robatel presentation are included in Enclosures Nos. 1 and 2, respectively.

Discussion

Robatel presented a summary of their proposed responses to selected RAIs to verify if their interpretation was correct and have staff clarify some of the RAIs. Staff said that it is troubling to have 69 RAIs, after five pre-application meetings, and that Robatel should pay a greater attention to details and justify all statements. For example, staff said that there was no justification for the foam crush strength data for strains beyond 60%, that yield is not an acceptance criteria, that deviations from the ASME Code were not justified, discrepancies between design and fabrication codes for the containment system were not appropriate, and that incorrect statements were made regarding the application of regulations, e.g., 10 CFR 71.47(a) or (b), a 10 mm crush depth margin will likely not be accepted unless a clearly justifiable and demonstrated rationale exists for this finding, lead slump and lead shrink are not justified.

Regarding RAIs 1-1 and 2-1, Robatel will provide the conditions of the resins during loading and include additional limiting assumptions to the package operating procedures. Staff cautioned the applicant on its reference to the 1983 Branch Technical Position and said that Robatel should do a better job at screening reference papers or documents that could help its case. Staff disagreed with the applicant on its proposed response regarding the inelastic deformation that occurs in the inner shell of the package and said that there shall be no yielding on the closure area and that the seal groove was not modeled while it should be. Regarding RAI 2-14 on the lifting analysis, staff said that yield is not an acceptance criterion and that the proposed response is inadequate.

Robatel adopted the application of solar insolation using a sine function to provide higher maximum temperatures in peak periods where solar insolation values are at their maximum.

A constant solar insolation is a regulatory requirement for both normal conditions of transport (NCT) and hypothetical accident conditions (HAC) analyses but staff said it could entertain reviewing the approach, as chosen by Robatel, if it is demonstrated to be conservative through sensitivity analyses. On the other hand, staff requested the applicant to (i) re-perform the HAC fire analysis with the results from the NCT steady-state analysis, and (ii) normalize the temperature plots to the starting time of 0 at the beginning of the fire.

Staff disagreed with the proposed responses to the containment RAIs: NUREG/CR-6487 refers to a structurally robust solid (which is not the characteristic of a filter) and the 15% release limit mentioned in the NUREG is for control rod blades, not for ion exchange resins. Regarding hydrogen generation, staff requested the applicant to provide a complete and more detailed response since there are other gases and volatiles than hydrogen. Staff also requested the applicant to (i) be consistent and tie all "loose ends" throughout the application, e.g., "a liner is required" in Chapter 1 while it "may be required" in Chapter 7, and (ii) explain and fully justify assumptions, as well as the basis for the technical choices made.

Staff shared its current concerns on the lead slump and gap issues and requested a clear justification for (i) the 1 mm lead gap between the lead layer and the walls housing the lead layer, and (ii) the 5 mm manufacturing tolerance of the lead layer while there is no tolerance for the inner and outer walls that house the lead layer. The applicant needs to demonstrate that the lead gap is less than 1 mm, and document in detail when or how there is sufficient control of the casting process so that the solidification shrinkage is negated because of the additional lead added during the solidification process. Assuming a 5 mm tolerance in the shielding calculations is conservative for NCT but does create a problem for lead slump under HAC.

Staff said that it will entertain a conference call regarding RAI 5-5 and provide a reference for materials properties used to calculate a lead contraction of 7%.

Staff made no regulatory commitments during the meeting.

Docket No. 71-9365
TAC No. L24587

Enclosure 1: Meeting Attendees
Enclosure 2: Robatel Presentation

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Distribution: Attendees, M. Sampson, M. Rahimi, D. Pstrak, C. Araguas

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**Meeting Between ROBATEL and the
Nuclear Regulatory Commission
April 17, 2013
Meeting Attendees**

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