



Holtec HI-STORE CIS Review - Discussion of 5/24/18 RAI responses on Aircraft Hazards

Division of Spent Fuel Management, NMSS
U.S. Nuclear Regulatory Commission

Public Meeting with Holtec International
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Summary

- March 28, 2018 - NRC issues request for additional information (RAI), Part 1
 - RAI 2-1 - Requests additional details on aircraft hazards assessment for HI-STORE CISF site
- May 24, 2018 - Holtec submits responses to RAIs
- NRC staff has identified issues in Holtec's response to the aircraft hazards analysis
 - Proximity criteria for flight paths (NUREG-0800)
 - Effective area for the facility
 - Crash rate for military aircraft
 - Units of measurement (statute vs. nautical)
 - Descriptions of SAR Figures

Issue 1 - Proximity Criteria from NUREG-0800

- Criterion B from Section 3.5.1.6 of NUREG-0800 not met
 - Proximity of military flight path to the facility requires detailed analysis
- Additional information required for detailed analysis
 - Annual number of flights, crash rates for specific aircraft types, distance to site, effective area of facility needed to estimate cumulative annual crash probability

Issue 2 - Estimate of effective area of the facility

- Section 3.5.1.6, Subsection 7 of NUREG-0800 provides guidance for estimating effective area of facility
 - Must include footprint area of facility, skid area for specific aircraft, and shadow area of facility structures
- Response does not include shadow area or skid area
 - Only footprint area for facility is included

Issue 3 - Basis for military aircraft crash rate

- Response does not provide basis provided for assumed military aircraft crash rate
- Section 3.5.1.6, Subsection 2 of NUREG-0800 cites specific references with data on aircraft crash rates
 - DOE, “Accident Analysis of Aircraft into Hazardous Facilities,” DOE-STD-3014-96, October 1996

Issue 4 - Units of measurement for airway distances

- RAI response should use consistent distance measurement units
 - SAR Table 2.2.5 cites distances in nautical miles, compares with statute miles from FAA Sectional chart
- Analysis should consider distances to edge of airway

Issue 5 - References to SAR Figure 2.2.7

- RAI response does not provide specific explanations of the information in SAR Figure 2.2.7
 - Any figures, tables, or charts provided in the application should be adequately described

Conclusions

- NRC staff needs additional information to address RAIs on aircraft hazards and determine compliance with NRC's safety regulations
- Timely completion of NRC review of Holtec's HI-STORE CISF application requires complete and high quality responses to NRC staff's questions