Audit Plan for NRC Staff Visit of Proposed Site for the HI-STORE Consolidated Interim Storage Facility in Lea County, NM
June 18-19, 2019

A. Location

The site audit will be held on June 18-19, 2019 at the addresses below:

Center of Excellence for Hazardous Materials Management
505 North Main Street
Carlsbad, New Mexico 88220

Holtec HI-STORE CISF Site
County Road 55 & US Hwy 62
Hobbs, NM 88240

B. Background

The NRC staff is currently conducting a detailed safety, security, and environmental review of Holtec International's application for a site-specific independent spent fuel storage installation license to construct and operate the HI-STORE Consolidated Interim Storage Facility (CISF). In connection with its safety review, the staff has identified several areas related to the information provided by the applicant in its safety analysis report (SAR) with respect to site geology, seismology, geotechnical engineering, and nearby structures that the staff wants to examine. The site audit will allow the staff to observe and examine these specific areas and better inform its safety review of the license application.

C. Audit Scope

The staff proposes a General Site Vicinity Tour highlighting important structural features (or the lack of visible structures) that include the following:

- Examine representative examples of active or abandoned oil and gas exploration and extraction wells or boreholes and other oil, gas or mining activities to determine the current or future potential for surface deformation, as described in the SAR. These examples include:
    - Temporary gas-gathering pipelines and three permanent pipelines (if visible);
    - Gas/oil production operations at the site and nearby including fracking;
    - Locations of past drilling activities at three nearby drill islands;
    - Locations of nearby potash mining (including solution mining);
    - Any salt mining from underground, or any injection wells nearby;
    - Proposed location for site fuel storage tank(s) at the site and the supply route(s).
- Examine representative examples of circular features of unknown origin, observed in several figures in SAR Section 2.6, to support the review of the subsurface materials and the potential for surface deformation.
- Examine small, shallow depressions in the Mescalero Caliche that the applicant attributes to dissolution of the Mescalero Caliche, as discussed in SAR Section 2.6.
- Examine outcrops of surface and near-surface stratigraphic units, including outcrops of the Dockum Group, to clarify the site stratigraphy discussed in SAR Section 2.6.

- Examine the proposed location of site facilities, which include the approximate location of the storage pads, Canister Transfer Facility, security buildings, among others, and the types of soils present at these locations (any trenching done, etc.), and the approximate cask haulage path(s).

The staff would also like to examine the core and boring logs from the boring program. Specifically, the staff would like to see core from the upper 100 ft, core with fractures and slickensides, caliche and evidence of dissolution of caliche in core, core from each subsurface unit encountered in the boring program, and soil samples, if available, as discussed in the SAR and the Geotechnical Data Report: HI-STORE CISF Phase 1 Site Characterization, Lea County, New Mexico.

D. Audit Team

1. Christopher Regan, Deputy Director, Division of Spent Fuel Management, NMSS
2. Michael Dudek, Chief, Radiological and Geotechnical Review Branch, NRO
3. Jose Cuadrado, Project Manager
4. Jenise Thompson, Geologist
5. Amitava Ghosh, Geotechnical Engineer
6. Luissette Candelario, Geotechnical Engineer
7. Zuhan Xi, Geotechnical Engineer
8. Gerry Stirewalt, Senior Geologist
9. Randall Fedors, Senior Hydrologist

E. Special Requests

Appropriate handling and protection of proprietary information shall be acknowledged and observed throughout the audit.

F. Deliverables

The audit team will issue an audit summary after completing the audit. The audit summary will support the NRC staff in its review of Holtec's application for the HI-STORE CISF.