

RAI NP-2.2-2

In addition to industrial and transportation facilities, gas and oilfield operations are common in west Texas. Regionally, the WCS CISF is located in the Permian Basin of west Texas and southeast New Mexico, which is one of the most important petroleum-producing regions in the United States, containing several thousand oil and gas wells [2-56]. Significant petroleum storage, however, is not located within 5 miles of the WCS CISF. Locally within the Waste Control Specialists property boundaries, oil and gas activity also is very limited. There is no active oilfield activity within the WCS CISF footprint area and only one documented dry hole in the immediate area of the WCS CISF (Figure 2-36). That dry hole has been cemented to the surface and proper plugging and abandonment protocol was observed. There is no evidence of any undocumented or “orphan” wells in the vicinity of the WCS CISF. If any open boreholes indicative of orphan wells are discovered during the construction process, these will be properly assessed and remediated using proper plugging and abandonment procedures in accordance with Texas Regulations. ISP joint venture member Waste Control Specialists also holds 100% of the Operating Rights for producing oil, gas, and other minerals for the area of land where the storage pads for Phase I and the future phases of the WCS CISF would be located. These rights allow ISP joint venture member Waste Control Specialists to prevent any drilling (horizontal or vertical) under storage pads for oil, gas, and other minerals. Based on Figure 2-36, 10 out of 12 locations (83%) are dry or no longer producing, which indicates there is little economically viable oil and gas resources within 1 mile of the WCS CISF and chances of petroleum recovery activities in this area are unlikely. As explained in SAR Section 2.6.2 and in the Probabilistic Seismic Hazard Analysis in Attachment D to SAR Chapter 2, it was determined there is a relatively low seismic hazard at the Waste Control Specialists site even with petroleum recovery activities.

SAR Chapter 12 Section 12.2 provides evaluations of the potential hazards these facilities present to the WCS CISF.

2.2.1 Aircraft Hazard Evaluation

ISP performed an aircraft hazards evaluation for the WCS CISF to demonstrate adequate assurance that the risks from aircraft hazards are sufficiently low. NRC regulations pertaining to siting evaluation, 10 CFR 72.90, require that proposed spent fuel storage installations be examined with respect to the frequency and severity of external natural and man-induced events that could affect the safe operation of the facility. The NRC accepts that spent fuel storage installations do not need to be designed to withstand aircraft crashes if there is less than one-in-one-million (1×10^{-6}) annual probability of occurrence [2-42].

For the WCS CISF aircraft hazard evaluation, relevant guidance from Standard Review Plan NUREG 0800 (Section 3.5.1.6-Aircraft Hazards) [2-43] was followed. Although NUREG 0800 is intended for light-water reactor designs, the approach for estimating aircraft hazard is considered to be relevant guidance for the WCS CISF.

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Figure 2-36
CISF 1-Mile Radius Oil and Gas Activity