

## **Request for Additional Information—ExxonMobil Highland Project**

On May 10, 2011, ExxonMobil Environmental Services Company (EMES) applied to the U.S. Nuclear Regulatory Commission (NRC) for amendment of source material license SUA-1139 for the Highland Uranium Mine and Mill Site (Highland) located in Converse County, Wyoming (EMES, 2011). This application is for expansion of the long-term surveillance and monitoring (LTSM) boundary and establishment of new and revised alternate concentration limits with associated point of compliance and point of exposure locations. Based on a review of the license amendment application in accordance with environmental protection regulations in 10 CFR Part 51, the NRC staff has the following Requests for Additional Information (RAIs). In these RAIs, staff refers to the Highland site, which includes, but may not be limited to, the reclaimed tailings dam and impoundment, backfilled pits, the Pit Lake, and the Southeast Drainage as illustrated in the license application (EMES, 2011, Figure 1-37). Information requests are organized by environmental resource area or review topic. All section numbers, figures and tables refer to the license application, unless otherwise indicated.

### **Proposed Action**

#### **RAI PA-1**

#### **Provide additional characteristics of the area enclosed within the current and proposed long-term surveillance and monitoring (LTSM) boundaries.**

In Sections 1.1 and 4.3 of the license application, the licensee requested expansion of the LTSM boundary to include the Pit Lake and the Southeast Drainage. However, the license application does not state the area of land enclosed within the current or the proposed LTSM boundaries. Similarly, the license application does not quantify the acres of land included in the proposed expansion of the LTSM boundary (i.e., the difference between acreage of the previous long term care boundary and the proposed long term care boundary). Finally, the license application does not provide the acreage of land that was purchased from private landowners to accommodate the expanded long-term care boundary and what that land was used for prior to the acquisition. This information is needed for complete description of the affected environment and for the assessment of land use impacts from the proposed expansion of the long-term care boundary.

## **Land Use**

### **RAI LU-1**

**Clarify the current land subsurface ownership status and the land within the proposed long term care boundary at the Highland site.**

The license application describes surface ownership of land on and adjacent to the proposed long term site boundary in Figure 3-1. The license application does not clearly describe the subsurface ownership and land management responsibilities for land areas within the proposed long-term care boundary at the Highland site. Because different entities in Wyoming can hold surface ownership rights and subsurface mineral rights, the license application description of land use characteristics based solely on surface ownership is incomplete. This information is needed to provide a more complete and accurate description of the status of land within the proposed expansion of the long-term care boundary at the site so the potential land use impacts can be assessed and quantified.

### **RAI LU-2**

**Confirm site features and the location of the nearest residence(s) from the Highland site.**

Please provide a scaled map showing the site and nearby features within 10 miles of the site boundary. The site map should include all residences with the 10-mile radius of the site.

### **RAI-Impact of Pit Lake on Migratory Birds**

After reviewing the licensee's ecological assessment report, the U.S. Fish & Wildlife Service (FWS) concluded that the report does not adequately support the conclusion of insignificant effects to migratory birds. FWS contends that the ecological assessment overlooks or excludes a number of important factors that would likely have an impact on any conclusions. FWS asserts that the report has a number of shortcomings and that the licensee's conceptual site model is inadequate because: (i) it does not include likely possible receptors, (ii) quantification of aquatic biomass may be misleading due to inappropriate collection of methods, and (iii) any quantification of bird nesting or hatching success is absent. Consequently, the license application does not provide an adequate ecological assessment. Please reassess the selenium toxicity risk to migratory birds that may use the Highland Pit Lake, focusing on the deficiencies identified above.

## References

EMES. "Highland Uranium Mine and Millsite Request for Amendment to Radioactive Materials License SUA-1139: Application to Amend Existing Alternate Concentration Limits." Houston, Texas: ExxonMobil Environmental Services Company. May 2011.

NRC. "Request for Information Regarding Endangered Species and Critical Habitat for the Exxonmobil License Amendment Application." September 2011. ML112420094.

U.S. FWS. Letter (October 28, 2011) to Paul Michalak, NRC, from U.S. Fish and Wildlife Service, Ecological Services. ML113120626.

U.S. FWS. Letter (November 8, 2011) to Paul Michalak, NRC, from U.S. Fish and Wildlife Service, Ecological Services. ML113260329.