

TECHNICAL EVALUATION REPORT

DATE: February 28, 2006

FACILITY: Highland Reclamation Project

LICENSEE: ExxonMobil Refining and Supply Company

DOCKET NO: 40-8102

LICENSE NO: SUA-1139

PROJECT MANAGER: Myron Fliegel

TECHNICAL REVIEWER: Daniel Rom

SUMMARY AND CONCLUSIONS:

ExxonMobil Refining & Supply Company (ExxonMobil) requested that the U.S. Nuclear Regulatory Commission (NRC) staff review the historic settlement monitoring data for the reclaimed uranium mill tailings basin at the Highland Reclamation Project (Highland) to assess the need for continued settlement monitoring. The historic settlement data indicate that tailings cover settlement at the Highland site has stabilized. Based on the settlement information provided by ExxonMobil, and a review of the NRC field observations made in 2001, as discussed herein, it is the staff's conclusion that the tailings settlement monitoring program may be discontinued.

BACKGROUND:

During an inspection of the Highland site on July 21, 2001, the staff observed that tailings consolidation and settlement of the tailings cover might be continuing in a portion of the tailings impoundment where ExxonMobil had placed additional fill for settlement problems. On the basis of these observations, the staff indicated that surveillance of settlement monuments should be continued to assure that excessive consolidation and cover settlement does not occur. In a letter dated June 5, 2002, ExxonMobil submitted a report, "As-Built and Construction Quality Assurance Report for the Uranium Tailings Basin at the Highland Reclamation Project," to summarize site reclamation activities and construction quality assurance test results. This report described the settlement monitoring activities for the tailings basin, and included information to address the concerns about potential future settlement that were noted during the staff's July 21, 2001 inspection of the site. In this regard, ExxonMobil committed to continue the settlement monitoring of selected locations of the tailings cover as part of its post-closure monitoring program prior to property transfer for long-term custody and license termination. In a letter dated January 20, 2006, ExxonMobil provided the updated settlement information from its post-closure monitoring program, and requested that the NRC approve the cessation of further settlement monitoring at the Highland site.

TECHNICAL EVALUATION:

In the January 20, 2006 submittal, ExxonMobil provided a brief summary of the reclamation of the tailings basin, including specific information regarding the placement of additional tailings cover fill material in certain areas in 2000 and 2001. Information was also provided from the ongoing settlement monitoring program. This information included settlement data, appropriate plan and profile drawings of the tailings basin and settlement monitoring locations, and graphical presentation of the settlement data. ExxonMobil obtained settlement monitoring data on a quarterly basis through January 2006, and these data were evaluated by a registered professional engineer. The settlement data were plotted on a scale which provided sufficient clarity to assess settlement trends for the time intervals of interest. The plotted settlement data indicate that critical settlement locations on the tailings cover have stabilized with negligible settlement at six locations, and less than 2.4 inches of settlement at four locations during the past year. There was no settlement at any location during the last quarter. Accordingly, based on the results of the observed settlement data, and the indicated stability of the tailings cover, ExxonMobil has requested that the NRC approve the discontinuance of the settlement monitoring program at the Highland site.

The staff has evaluated the settlement monitoring data provided by ExxonMobil, and agrees that settlement of the tailings cover at the Highland site has stabilized.

CONCLUSION:

Based on the results of settlement monitoring and the indicated stability of the tailings cover at the Highland site, the staff concludes that the settlement monitoring program at Highland may be terminated.