

August 12, 2008

Mr. Mahesh Vidyasagar, Project Manager  
ExxonMobil Environmental Services  
16945 Northchase Drive, CORP-GP4-534  
Houston, Texas 77060

SUBJECT: CHARACTERIZATION PLAN FOR THE GROUND WATER PLUME OF SITE-GENERATED RADIONUCLIDES AND CHEMICALS THAT IS LEAVING THE PROPERTY BOUNDARY OF THE EXXONMOBIL HIGHLAND RECLAMATION PROJECT, SOURCE MATERIALS LICENSE SUA-1139

Dear Mr. Vidyasagar:

In a letter to the U.S. Nuclear Regulatory Commission (NRC) dated March 18, 2008 (See ADAMS ML080850495), ExxonMobil Refining and Supply Company (ExxonMobil), through its contractor, Arcadis, submitted a statement that "site historical constituents are not a current source of offsite migration, as evidenced by ongoing groundwater sampling at the perimeter of the site." No ground water sampling data was included in this letter. However, the Boner Property Well Report, submitted by Arcadis on May 29, 2008 (See ADAMS ML081630652), clearly shows that there is a ground water plume of site-generated radionuclides and chemicals from the mill tailings cell leaving the ExxonMobil property and impacting the adjacent property.

Because of the above discrepancy, ExxonMobil should provide a characterization plan for the ExxonMobil property to the NRC within 90 days of the receipt of this letter. The characterization plan should include the approximate number of additional wells that are needed and their general location, and the time frame for implementation of the plan. In particular, ExxonMobil should determine: 1) the offsite migration of site-generated radionuclides and chemicals in the alluvium within a tributary of the North Fork of Box Creek on the Boner brothers' property; and, 2) potential offsite migration of site-generated radionuclides and chemicals in another tributary of the North Fork of Box Creek that is northeast of the tributary on the Boner brothers' property. The characterization plan should also include surface water sampling of the North Fork of Box Creek to determine the potential impact on livestock from drinking the water.

M. Vidyasagar

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If you have any questions, please contact Tom McLaughlin at (301) 415-5869 or by email at  
[Thomas.mclaughlin@nrc.com](mailto:Thomas.mclaughlin@nrc.com).

Sincerely,

**/RA/**

Keith I. McConnell, Deputy Director  
Decommissioning and Uranium Recovery  
Licensing Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

Docket No.: 040-08102

License No.: SUA-1139



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