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WM Project

39

Docket No.

PDR JUL 24 1985

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MEMORANDUM FOR: Leo B. Higginbotham, Chief, WMLU
Division of Waste Management

FROM: Malcolm R. Knapp, Chief, WMGT
Division of Waste Management

SUBJECT: COORDINATING UMTRA SITE CHARACTERIZATION PROGRAMS

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The attached news release about Ambrosia Lake indicates an apparent lack of coordination of DOE's site characterization programs. Since DOE is soliciting ideas on how to streamline the UMTRA Project to meet its statutory deadline, it may be appropriate for NRC to suggest that DOE consider coordinating site characterization activities to reduce costs and time delays. These reductions would be realized by reducing the total number of boreholes and drilling contractors.

As you are aware, DOE typically characterizes UMTRAP sites in support of remedial action planning and implementation, including geotechnical characterization for stability assessments and designs, borrow source material characterization, radiological characterization for estimating volumes of contaminated materials, and hydrogeologic characterization for identifying existing contamination and selecting appropriate remedial actions. As an example of these programs, the Ambrosia Lake news release details the drilling of almost 500 boreholes in addition to test pits on and around the tailings pile apparently without any coordination between the radiological, geotechnical, and hydrogeological characterization programs.

Although such coordination may require modifications to DOE's contractual relationship with its sub-contractors and increased subcontractor communication, there do not appear to be any substantive reasons why the characterization programs should not be coordinated. For example, shallow radiological boreholes could be drilled slightly deeper to provide necessary geotechnical information and then completed as groundwater monitoring wells. The coordination could save time and money by reducing the number of boreholes, the number of drilling contractors, and the mobilization costs of drilling equipment. In addition, such coordination could promote communication between sub-contractors and, thus, improve the consistency of DOE's assessments.

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After you have evaluated this suggestion for increased coordination of DOE's characterization programs, I suggest that you consider forwarding it to DOE. Please contact Mike Weber if you have questions about our suggestion or would like to arrange a meeting to discuss it.

Malcolm R. Knapp, Chief, WMGT
Division of Waste Management

Enclosure:
As Stated

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| DFC | : WMGT <i>MW</i> | : WMGT <i>MF</i> | : WMGT <i>MK</i> | : | : | : | : |
| NAME | : MWeber:mw | : MFliegel | : MKnapp | : | : | : | : |
| DATE | : 85/07/24 | : 85/07/24 | : 85/07/24 | : | : | : | : |

DOE NEWS:

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WM Project 67

Docket No. _____

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SOLWENBERGE

DOE TO STUDY AMBROSIA LAKE URANIUM TAILINGS SITE

The U.S. Department of Energy (DOE) will conduct an extensive field program throughout the summer at the Ambrosia Lake uranium mill tailings pile, located 25 miles north of Grants, New Mexico.

The pile, formerly owned by Phillips/United Nuclear, contains approximately 2.6 million tons of tailings. DOE will clean up the tailings as part of their Uranium Mill Tailings Remedial Action (UMTRA) Project.

Geotechnical, hydrologic and radiological examination of the pile and the area immediately surrounding it is necessary for the DOE to obtain information needed to plan for site clean-up. Jacobs Engineering Group Inc. of Albuquerque, New Mexico, is the Technical Assistance Contractor to the DOE, and will be directing the field work at the Ambrosia Lake site.

Three subcontractors have been selected to perform the geotechnical characterization efforts. In Situ Technology, Inc. of Orlando, Florida has conducted piezocone testing at over 125 locations on the tailings pile. Piezocone tests are done to determine soil properties such as compressibility, permeability, and moisture content.

Ferris Mines of Gallup, New Mexico, was hired to dig test pits at various locations both on the tailings pile itself and in the nearby area. Soils samples from the test pits located away from the pile will be analyzed to establish their suitability for use as a source for borrow material to possibly cover the mill tailings. These soils will be tested for their ability to prevent escape of radon gas from the pile.

Western Technologies, Inc. of Farmington, New Mexico, has been awarded a contract to drill about 25 geotechnical boreholes at and around the site. Soil samples from the boreholes will be analyzed to characterize the content and stability of the pile and its foundation.

Jacobs Engineering Group Inc. is currently soliciting subcontractors interested and qualified to perform hydrologic characterization work at the Ambrosia Lake site. The work will consist of installation of about twenty monitor wells off the mill tailings site, and about seven wells on the pile itself. Water samples from the wells will be analyzed to determine chemical characteristics of any water found within the tailings pile, and to determine if there has been movement into the shallow ground water away from the site. Laboratory analysis of the water samples will not be available until October of this year.

Finally, Bendix Field Engineering Corporation of Grand Junction, Colorado, performed a radiological characterization in the area immediately surrounding the Ambrosia Lake site to define the extent and depth of contamination exceeding Environmental Protection Agency standards off the tailings pile. Bendix drilled approximately 300 boreholes over a three-week period in March and April of this year. The boreholes were located in the former ore storage area, nearby irrigation ditches, land where it is known that wind has blown tailings off the pile, and open land adjacent to those areas.

All results from the field work at Ambrosia Lake will be analyzed for inclusion in an Environmental Assessment to be issued by the Department of Energy. The Environmental Assessment is scheduled to be released for public review sometime late in 1985. Persons wishing to receive a copy of that document should write to John Themelis, DOE UMTRA Project Manager, 5301 Central Avenue, N.E., Suite 1700, Albuquerque, NM 87108, and request they be put on the mailing lists to receive the Ambrosia Lake Environmental Assessment. The Ambrosia Lake site is one of 24 sites nationwide to be cleaned up under the UMTRA Project.

-DOE-

For further information, contact: Ben E. McCarty (505) 844-6938
Richard F. Guay (505) 846-4030

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