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JAN 3 1 2008



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Date: January 29, 2008 *Refer To*: EP2008-0053

James P. Bearzi, Bureau Chief Hazardous Waste Bureau New Mexico Environment Department 2905 Rodeo Park Drive East, Building 1 Santa Fe, NM 87505-6303

Subject: Update on Environmental Programs Database Management Issues

Dear Mr. Bearzi:

As a follow-up to the telephone conversation between you and Paul Huber and Paul's email of January 11, 2008, we are providing an update of the Los Alamos National Laboratory (LANL) Environmental Program (EP) database management systems. The information below summarizes the issues, the reports that are likely to be affected, and the actions being taken to mitigate the impacts on our deliverables to restore the system's ability to provide the necessary applications.

Summary of issues

EP is supported by data management systems that are stored in both a Sample Management Database and a Water Quality Database. Both are used to manage and assess the extensive amounts of data that is collected in support of the EP mission. The manipulation of these data is done by various software applications that select the appropriate data sets and perform the prescribed processing so the data are reduced for reports and other decision-making.

Upon returning from the New Year's break, EP staff noticed abnormalities and inconsistencies when working with the applications related to groundwater and surface water scope. By January 8, 2008, it had become clear to both technical and information systems staff that a significantly large and complicated breakdown had occurred within the software systems that was impacting both databases, as well as the server that supports the applications of both databases.

A meeting was immediately convened with LANL management to bring awareness to the problem, evaluate initial investigation and corrective actions, and assess the impact on EP deliverables. A team of technical and information systems personnel was assigned, with the highest priority, to implement a corrective action program designed to remedy the issues while taking steps to mitigate EP user impacts.

Affected reports

- Monthly data assessment and reporting under the chromium settlement agreement for at least the January and February reports
- Second quarterly submittal of periodic monitoring reports, due February 29, 2008, including reports on six watershed monitoring events

Actions being taken

- The January data assessment report to the New Mexico Environment Department included data loaded up to December 19, 2007, the last successful backup point before the problem occurred. These data were reported on schedule. The upload from December 20, 2007 (the last work day of the month), will be reported in the monthly report of January data.
- With respect to submittal of the second quarterly periodic monitoring report group for fiscal year 2008, we were able to perform the data screening and assessment for five of the six included watersheds so these can be submitted on February 29, 2008, as scheduled. Because the Water Canyon watershed was not sampled until late in the calendar year, these data were not uploaded by December 19, 2007.
- The status as of January 28, 2008, is as follows.
 - o The systems have been recovered.
 - o A beta database has been created to test and perform forensics to identify the source of the failure.
 - Staff are working through the forensics.
- Still to be completed:
 - o Identification of the problem
 - o Implementation of corrections and controls to the databases and the applications
 - o Complete testing of the corrections, improvements, and controls
 - o Migration of the corrections from the beta database to the real databases
 - o Confirmatory testing followed by declaration that the databases are ready for production and application use

In our email of January 11, 2008, we stated the expectation of being able to complete the loading of backlogged data by January 29, 2008, and to restore the systems to full functionality by January 31, 2008. However, the search for the source of failure identified a number of issues that required further investigation that will delay the restoration. We now anticipate having the databases restored to full functionality by February 15, 2008. Therefore, by this letter, we are seeking approval for extension of schedule to the following documents:

- February reporting of January's data. We are seeking a delay to February 29, 2008, to perform the assessment, which would begin the 24-hour notification period and the 2 week follow-up for written reporting.
- We request an extension to March 31, 2008, for submittal of the monitoring report for Water Canyon.

As investigation of these database problems continues, we will advise you and your staff of any new developments. If you have any questions, please contact Paul Huber at (505) 606-2225 (huberpr@lanl.gov) or Mat Johansen at (505) 665-5046 (mjohansen@doeal.gov).

Sincerely,

Susan G. Stiger, Associate Director

Environmental Programs

Los Alamos National Laboratory

Sincerely,

David R. Gregory, Project Director

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