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**COMMENTS OF THE MONITORING TEAM ON THE  
THIRD INDEPENDENT AUDIT OF LOS ALAMOS NATIONAL LABORATORY  
FOR COMPLIANCE WITH THE  
CLEAN AIR ACT, 40 CFR 61, SUBPART H IN 2001**

Report of the Monitoring Team  
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The Institute for Energy and Environmental Research (IEER) has the function of monitoring the independent audits of LANL under the consent decree relating to the lawsuit filed by CCNS. These audits have since acquired greater legal import regarding compliance because LANL has decided to use these audits as part of its compliance obligations. As a result the ITAT audits are part of the LANL process of certification of compliance with the Clean Air Act regulations as specified in 40 CFR 61 Subpart H.

As per the Consent Decree, IEER has monitored the third audit from its inception to date. These comments are based on a quick review of the ITAT's final report and on the information covered by the audit during the monitoring of the audit. Our review of the ITAT draft report led us that the ITAT should have called out substantive technical deficiencies relating to four issues: (1) a lack of quality assurance of the data on radionuclide usage supplied by the facilities to MAQ, (2) the problem of detecting radiologically elevated concentrations of plutonium-238 in air samples in some cases, (3) the need to provide continuous monitoring of airborne emissions from TA-54 waste characterization activities, and (4) significant uncertainties in the coverage of AIRNET stations with respect to Los Alamos North Mesa residences that justify an additional sampling station. The final report has only partly resolved the third issue relating to TA-54. As regards the rest, the response to our comments in the final report still leaves the major questions unresolved. These include at least one issue, that of quality assurance of facility supplied usage data, rises to the level of a substantive technical deficiency relating to LANLs' compliance obligations. This is explained in more detail below.

We will issue our final monitoring report on the audit after we have had time to fully review the final report.

## **Substantive compliance breach in regard to usage data**

With regard to issue (1), usage data are part of an estimation process that is a substitute for periodic confirmatory measurements of unmonitored sources, which are required under 40 CFR 61 Subpart H. Further, an EPA document referred to in 40 CFR 61 Appendix D requires that there be enough information in the report "to judge the validity of the input used in the calculations." Based on several cases as well as other review of the program the audit has documented that there is no QA program at the facilities for user supplied data. We agree with this finding. We note that LANL has not contested the third audit draft report regarding the "high importance" of the issue of the quality of input data. (p. 19)

IEER's main finding in regard to the ITAT's audit is that it should have declared that LANL is in substantive breach of its compliance obligations under 40 CFR 61 Subpart H. This is because the calculations of doses based on usage data cannot be regarded as scientifically meaningful without a sound quality assurance procedure for the input data.

The issue of quality assurance in regard to compliance has a long history at LANL. CCNS raised it in the lawsuit it filed against LANL that resulted in the Consent Decree. Years before that, in early 1992, the Tiger Team report raised QA issues in regard to LANL's air quality compliance. In 1991, the DOE scientist responsible for evaluating LANL's clean air program, Frank L. Sprague, noted in regard to dose estimation that "the model and its output is valid; it is the input data that is questionable." (DOE Albuquerque Operations Office August 7, 1991.)

The public is still being assured that a certain number of emissions sources are so low in the emissions that they need not be monitored continuously. The EPA has exempted LANL from periodic monitoring partly because it would be too onerous. Despite these warnings and exemptions, LANL has still not taken the steps to ensure that the underlying basis of its assertions in regard to unmonitored sources, which is the input data, has systematic scientific merit. As matters stand today, it does not. A part of the reason is that LANL rejected the recommendation made by the ITAT during the second audit. The ITAT's draft third audit report noted the following in this regard:

Our suggestion from the second audit to implement a LANL-wide database system for compiling radionuclide usage at the facility level was investigated by MAQ. The response from facility personnel indicated a desire for MAQ personnel to continue to maintain responsibility for data collection and data entry; therefore, implementing such a system was not pursued. (p. 18)

While the MAQ has made improvements in its program, as noted by ITAT, these cannot make up for a lack of QA of user supplied data. We cannot agree with the ITAT that this QA program is merely an improvement that LANL should make. On the contrary, the facts and the requirements of the regulation show that LANL is in substantive breach of its compliance obligations in regard to unmonitored sources because it has ignored external advice and conclusions, up to and including the recommendation in the second ITAT audit report, even though it has used this very report as part of the fulfillment of its compliance obligations for an independent audit.

**In sum, we have concluded that the ITAT should have found LANL in substantive breach of compliance obligations under 40 CFC 61 Subpart H in regard to input data for its dose calculations based on usage estimates. Further, this breach requires corrective action in the form of a sound quality assurance program. The ITAT has called for such a program but not as a matter of compliance, thereby leaving implementation up to LANL as a voluntary matter. We also believe that the ITAT should have called on LANL to make periodic confirmatory measurements to ensure that emissions from these sources remain low. LANL no longer merits the waiver that EPA granted to it from this requirement of 40 CFR 61 Subpart H.**

**In sum, we conclude that the substantial technical deficiencies with regard to LANL's compliance obligations under 40 CFC 61 Subpart H should have led the ITAT to call for a fourth independent audit be conducted in the year 2004.**