

**U.S. DEPARTMENT OF ENERGY  
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT  
OFFICE OF QUALITY ASSURANCE**

**SUPPLIER AUDIT REPORT**

**OF**

**EPPLEY LABORATORY, INC.**

**NEWPORT, RHODE ISLAND**

**REPORT NUMBER OQA-SA-97-002  
OCTOBER 07, 1996**

Prepared by:  Date: 10/17/96

**Richard L. Maudlin  
Audit Team Leader  
Yucca Mountain Quality  
Assurance Division**

Approved by:  Date: 10/23/96

**Donald G. Horton  
Director  
Office of Quality Assurance**

Enclosure.

## **1.0 EXECUTIVE SUMMARY**

The results of the supplier audit of Eppley Laboratory, Inc. revealed unsatisfactory conditions resulting in the issuance of one Deficiency Report (DR) to the U.S. Geological Survey (USGS) for action which relates to the Quality Assurance (QA) Program for the Office of Civilian Radioactive Waste Management (OCRWM) activities. The DR addresses deficiencies as follows: (1) Certificates of calibration issued to USGS by Eppley Laboratory, Inc. did not reference a due date for recalibration; and (2) no evidence of annual internal audits. The unsatisfactory conditions identified during the audit were discussed with the QA Manager, Eppley Laboratory, Inc., who agreed to work with USGS in the resolution of the unsatisfactory conditions.

The results of the audit do not warrant any recommendation for limitations or other conditions that should be invoked relative to the items or services being provided by Eppley Laboratory, Inc.; however, responsibility for final determination of acceptability of this supplier for use and providing the items or services rests with the USGS.

## **2.0 SCOPE**

The supplier audit was conducted to evaluate the adequacy, implementation, and effectiveness of Eppley Laboratory, Inc.'s QA Program. This was accomplished by determining if Eppley Laboratory, Inc.'s program satisfies the QA requirements specified in Purchase Order 1434-CR-95-SA-00116, implementation of the Eppley Laboratory, Inc.'s QA Manual, dated May 1995, as accepted by the USGS, and the OCRWM Quality Assurance Requirements and Description (QARD), DOE/RW-0333P, Revision 5, for the scope of work. The QA Program elements determined to be applicable are: Organization; QA Program; Implementing Documents; Document Control; Control of Measuring and Test Equipment; Corrective Action; QA Records; and Audits.

## **3.0 AUDIT TEAM AND OBSERVERS**

Richard L. Maudlin, Audit Team Leader, Office of Quality Assurance (OQA), Yucca Mountain Quality Assurance (YMQA)

## **4.0 PERSONNEL CONTACTED DURING FACILITY AUDIT**

T. Kirk, QA Manager, Eppley Laboratory, Inc.  
G. Kirk, Director, Eppley Laboratory, Inc.

## 5.0 SUMMARY OF AUDIT RESULTS

Eppley Laboratory, Inc.'s QA Manual, dated May 1995, addresses the applicable elements of the USGS Purchase Order 1434-CR-95-SA-00116 and the applicable elements of the OCRWM QARD, Revision 5, for the intended scope of work except for the requirements for the performance of annual internal audits. Implementation of the Eppley Laboratory, Inc.'s QA Manual, dated May 1995, was considered satisfactory and effective in producing the desired results for the scope of work, except for those unsatisfactory conditions described in Section 6.0 of this report, "Deficiencies/Recommendations." It should be noted that Eppley Laboratory, Inc. is recognized by the National Institute of Standards and Technologies as the standard for the calibration of Solar Radiation Pyranometers (Reference: Standardized Procedures in the North American Continent for the Calibration of Solar Radiation Pyranometers).

The details of the audit, along with the objective evidence reviewed, are contained within the audit checklist which is available from the OQA's supplier evaluation files.

## 6.0 DEFICIENCIES/RECOMMENDATIONS

YM-97-D004. The Eppley Laboratory, Inc., QA Manual, dated May 1995, Section 6.0, Subsection 6.2.8, requires that equipment calibration documentation include the due date for recalibration. The OCRWM QARD, Revision 5, Section 18.0, Subsection 18.2.1, requires that internal audits of the work to verify QA program compliance be performed annually.

Contrary to these requirements: (1) Certificates of calibration issued to the USGS for the calibration of Pyranometers, Serial Numbers 11923, 10702, 10386, 9482, 8553, 8545, and 12015, did not reference a recalibration due date; (2) the Eppley Laboratory, Inc.'s QA Manual, dated May 1995, does not require the performance of annual internal audits; and (3) there was no objective evidence to reflect the performance of annual internal audits of the Eppley Laboratory, Inc.'s QA Program