



United States Department of the Interior

NATIONAL PARK SERVICE
WESTERN ARCHEOLOGICAL AND CONSERVATION CENTER
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IN REPLY REFER TO:

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(WR)RW

April 7, 1988

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Gentlemen:

The following responds to the Notice of Violations, Docket No. 030-19531, License No. 02-19920-01 enclosed with the February 26 letter from Mr. James L. Montgomery. On the basis of a telephone call on March 22 from George Cattanach of this office to Paul Zurakowski, Mr. Montgomery extended the 30-day deadline for reply to April 9.

History

In 1981, the Western Archeological and Conservation Center (WACC), a cultural resources management office within the National Park Service, purchased equipment from Troxler Electronic Laboratories, Inc. to monitor moisture in and around historic structures in various units of the National Park System. Four nuclear sources were contained in the three gauges included in the order. Because the University of Arizona, Tucson, was capable of providing full services for such equipment (including proper storage, leak tests and inventory) in its Radiation Control Office, the gauges were stored there at various times when not in use in the field by WACC. One of the gauges was apparently shipped there directly from the manufacturer and thus inadvertently omitted from the WACC property records. All sources were included by Dr. Bryan R. Westerman, Director, Radiation Control Office, in the list of equipment transferred to the University by WACC in 1984. This was done because the research program requiring use of the equipment was terminated and the individual licensed to use the equipment transferred to another agency. Dr. Westerman acknowledged receipt of all three instruments in a letter of December 6, 1984.

The equipment was not used by WACC from that time until 1986 when staff of another office administratively supported by WACC found they could use the gauges in their own research. Action was initiated by staff of that unit in April, 1986, to renew the license and develop and implement a strong management control program to meet all regulatory requirements required by the NRC.

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While WACC staff had believed NRC rules and regulations for both storage and shipping of the instruments were being followed properly, the February 3, 1988 inspection listed six violations for the period March 21, 1983 to December 6, 1984. Specifics of how each violation occurred are discussed first below, followed by the steps planned and taken by WACC and the new licensee to prevent future violations.

Violations

A & B: Records of leak tests and inventories not maintained for 21 months on three Troxler gauges, s/n 195, 217 and 8162.

Troxler gauge s/n 195, Model 1351; source, 7.6 mCi of ^{137}Cs .

Reason for violation: Received directly by the University of Arizona on 3/9/82, but no record of receipt was found at WACC. The University maintained the instrument under State regulations, but WACC failed to secure copies of the records at the time. (See explanation under Violation C, below.)

Troxler gauge s/n 217, Model 3222; source, 10 mCi of ^{241}Am . Received by WACC 8/27/81. For the period in question, the University of Arizona documented leak tests and inventories on 12/20/83, 4/29/83, 10/24/83, 1/19/84, 10/21/84 and 4/15/85. The 10/21/84 test exceeded the mandatory 6-month check period.

Reason for violation: WACC failed to conduct required checks while the unit was being used for field studies at Tumacacori and Tuzigoot National Monuments, Arizona.

Troxler gauge s/n 8162, Model 3411-B; sources, (1) 8.4 mCi of ^{137}Cs and (2) 40 mCi of ^{241}Am . Received by WACC 9/4/81. No records of documented University of Arizona leak tests and inventories prior to 1/19/84 when both sources were tested. Tests of sources (1) and (2) on 10/22/84 and 10/24/84 respectively, exceeded the 6-month check period. (Subsequent tests on 4/15/85 and 4/21/85 were within the 6-month period.)

Reason for violations: Before 1/19/84 the University of Arizona performed leak tests and inventories, but WACC failed to secure copies of the records at the time. The University has so far been unable to locate these records. For the period 1/19/84 to 10/24/84, WACC failed to conduct required checks while the unit was being used for field studies at Tumacacori and Tuzigoot National Monuments, Arizona, and Golden Gate National Recreation Area (Alcatraz, Cliff House and Haslett Warehouse), California.

C. Record of receipt not maintained for Troxler gauge, s/n 195.

Reason for violation: Information provided us by the University of Arizona on 3/30/88 showed the gauge was ordered by WACC and shipped directly to the University which received it on 3/9/82. Through an oversight, the receipt was not noted on WACC records and therefore not listed as part of WACC's inventory. The University Radiation Control Office initially believed the gauge was State property and stored it according to State of Arizona procedures for radioactive sources. It appears the WACC licensee, Dr. Niebla, may never have used this gauge. Thus, no one thought to bring it into compliance with NRC regulations until it was listed on the University receipt of December 6, 1984.

D. Exposure records not maintained from 3/21/83 to 12/6/84.

Reason for violation: WACC failed to secure copies of exposure records maintained by the University of Arizona. Dr. Niebla stated in a recent telephone conversation that the University issued radiation badges when the equipment was in use, and maintained exposure records for each badge holder. The University, however, has not yet been able to locate these records and thus is unable to provide copies for WACC files.

E & F. Documents to show shipping containers were constructed in accordance with DOT design requirements and the IAEA Certificates of Competent Authority or safety analyses were not maintained.

Reason for violations: WACC failed to ensure documents were maintained during the period the instruments were stored at the University of Arizona before their formal transfer to the University 12/6/84, and also failed to obtain copies of these documents for WACC files. Dr. Niebla stated WACC had this documentation for gauges s/n 217 and 8162 as required every time instruments were shipped, and that it went to the University with the gauges. Unfortunately, the University has been unable to locate documents for gauges 217 and 8162, but does have them for gauge 195.

Corrective Actions

On March 1, 1988, gauges s/n 217 and 8162 were formally transferred from the University of Arizona to the National Park Service. They were then shipped to Troxler for repair, recalibration and leak testing. Upon their return, with proper documentation, they have been stored at WACC. Gauge s/n 195 and all required documentation is being transferred from the University to the Service on April 7, 1988. It will also be shipped to Troxler for service and stored at WACC upon its return.

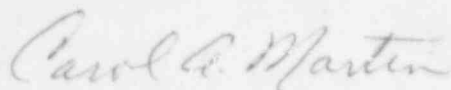
We have received replacement documentation (Certificate of Competent Authority for Special Form Materials and Certificate of Test Record for DOT 7A Transportation Containers) from Troxler for gauges 217 and 8182. A full record of all activities involving the three gauges is now being maintained by the new license holder, Michael R. Kunzmann of the National Park Service's Cooperative Park Studies Unit (CPSU/UA). In the enclosed memo of March 7, Mr. Kunzmann lists the steps taken to ensure compliance with NRC regulations. We believe this brings us into full compliance with NRC rules and regulations for the storage, maintenance and future use of the three nuclear gauges.

In addition, WACC's Administrative Officer has established internal property and file management control procedures to insure records of nuclear sources will be specially marked so anyone maintaining such records in the future will be aware of special considerations to be followed. Mr. Cattanach, Special Assistant to the Chief, WACC, will continue to follow up with Dr. Westerman at the University to reconstruct the missing documentation and obtain copies for the WACC permanent administrative files.

WACC accepts full responsibility for the above listed violations, recognizing their potential to create safety hazards. We also recognize our responsibility to conduct and maintain full documentation of all activities as required by the Commission's rules and regulations and the conditions of the licenses issued to National Park Service officials.

In-depth discussions between involved persons of WACC and the CPSU/UA have established procedures and responsibilities to follow for the future. We see no problem in maintaining the required control over all nuclear sources and in operating future research programs using these instruments in a safe and efficient manner.

We appreciate both the diligence and cooperation of Messrs. Paul R. Zurakowski and R. D. Thomas of the Region V office in helping us identify and correct procedural problems. We welcome future NRC inspections as a means of determining whether our new procedures are adequate to ensure full compliance with NRC rules and regulations.



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cc:
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