

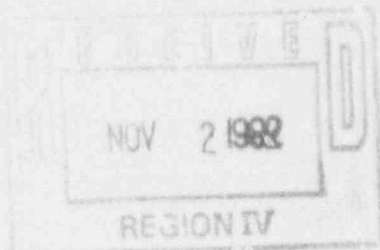


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Vice President for Administration
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October 22, 1992

United States Nuclear Regulatory Commission
Regional Administrator, Region IV
611 Plaza Drive, Suite 400
Arlington, TX 76011-8064



REFERENCE: License: 40-02194-17
Docket: 030-13079/92-01

REPLY TO A NOTICE OF VIOLATION

This is South Dakota State University's response to the Notice of Violations found during the radiation safety inspection carried out by Mr. W. L. Holley on September 17, 1992 and reported in your letter of October 5, 1992.

Review of the violations cited by Mr. Holley has been completed by the Radiation Safety Committee, the Office of Research, and this office. The University's response to each of the violations follows:

- A. License Condition 12.B. states, in part, that each sealed source containing licensed material, other than hydrogen-3, with a half-life greater than 30 days and any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed 6 months.

Contrary to the above, the licensee failed to perform leak tests within the required 6 month interval on a Campbell Pacific nuclear gauge, Serial No. H38122581, containing a 50 mCi Am-241 Be sealed source from May 21, 1990, to December 18, 1990. There were instances where the above gauge and two other gauges had leak test intervals greater than 6 months by 1-2 weeks.

RESPONSE:

1. Reason for violation: ... License Condition 12.A.(3) provides "the periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage before any use or transfer to another person..."

The violation results from a failure to record formally on the RSO records the fact that the moisture probes were in storage during the winter season, normally from October to early or mid-May. The RSO had knowledge of the storage practices and no probes were placed in service before the Spring leak tests were made.

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Gauge Number H38122581 serves as a back-up to another gauge. The gauge has been in storage since about 1986 except for the period of June, 1991 to September, 1991. The December, 1990, test was made so the gauge would be ready for use in early Spring if it were needed. The fact that it was in storage was not formally noted.

2. **Corrective steps taken:** Each leak test is now accompanied by a form to be signed by the Principal User certifying the use status (active or storage) of the probe. As of this date, all leak tests of moisture probes required during October, 1992, have been completed.
3. **Corrective action to be taken:** Storage conditions will be noted on the records as the leak test forms are returned. A wall-type planning calendar was ordered before the inspection and is being implemented. Leak tests will be scheduled on the calendar.
4. **Compliance date:** South Dakota State University is now in compliance.

- B. 10 CFR 20.201(b) states that each licensee shall make or cause to be made such surveys as (1) may be necessary for the licensee to comply with the regulations in this part, and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. Section 10.4.2.8 of the attachment to the letter of License Condition 22.C. states, in part, that all radioisotope users shall make smear tests, at least every 2 weeks, of the work areas where the material is being used. Smear tests should be made at any time work is being suspended

Contrary to the above, the licensee failed to perform smear tests from July 23, 1992 to August 12, 1992, and from August 24, 1992, to September 17, 1992, in the Winter Hardiness laboratory.

RESPONSE:

1. **Reason for violation:** Written instructions had been issued to all users stating the requirement for biweekly smear tests. Apparently some confusion existed about recording the results and noting when work was suspended.

A delineation of areas within the Winter Hardiness Laboratory had been made among the workers with various nuclides. Some smear tests were taken over a limited area with the results recorded in the worker's notebook but not in the Laboratory records.

2. **Corrective steps taken:** Smear tests were taken in the Winter Hardiness Laboratory immediately after Mr. Holley's visit and are being taken on a regular biweekly basis. The Radiation Safety Office is closely monitoring the effort.

All users of unsealed sources were issued detailed procedures and model recordkeeping formats to clarify the smear test requirements. The Radiation Safety Office has increased its monitoring of smear test records. President Wagner has directed that all laboratories shall be in compliance with the license conditions.

3. **Corrective action to be taken:** The Radiation Safety Office will continue its increased monitoring of smear testing throughout the University.

4. **Compliance date:** South Dakota State University is now in compliance.

The University makes a serious effort to operate its Radiation Safety Program in an effective pro-active manner. Mr. Holley's formal and informal review of the program was very helpful in pointing out activities that could be improved.

If there are questions regarding this response, do not hesitate to contact me.

Sincerely,



Michael P. Reger
Acting Vice President for Administration

CC: United States Nuclear Regulatory Commission
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South Dakota Radiation Control Program Director