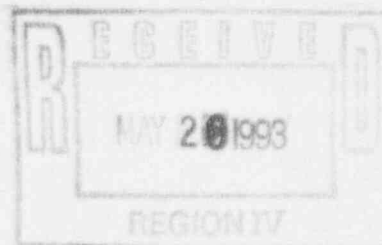


U.S. Nuclear Regulatory Commission
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Washington, D.C. 20555



Reply to a Notice of Violation

Oklahoma State University
Stillwater, Oklahoma 74078

Docket No: 030-00945
License No: 35-00237-03

This correspondence is in regard to a Notice of Violation (Dated APR 29 1993) received as the result of an unannounced inspection of our Byproduct Material License on April 21, 1993 indicating a violation of NRC regulations for omission of leak tests on several stored and unused sources between April 1991 and April 1993.

Oklahoma State University has a conscientious Radiological Safety Program and an excellent record in compliance with NRC regulations. The indicated violations are a serious matter to us and we wish to resolve the problem as expeditiously as possible so this does not happen in the future.

It should be stated that the leak test omissions were not the result of careless management but were planned procedures based on what we believed our license conditions allow us to do. At no time were we aware that any NRC regulations were being violated with respect to the periodic leak testing of certain sealed sources. Our justification for this statement is the following:

First of all, Condition 12-A.(3) of Oklahoma State University's Byproduct Material License states that:

- (3) Except for alpha sources, 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 unless they have been leak tested within 6 months before the date of use or transfer.

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We believed this allowed us to hold stored and unused sources without leak testing provided they were not put to use or transferred to another person.

The sources in question, with the exception of source Number (4) below (our records show no leak test omissions) as indicated below, were in storage and not being used for any purpose.

Also, Condition 12-A(3) has been in the Oklahoma State University License for at least 15 years and a limited number of sources have been stored in accordance with it. Numerous NRC inspectors have reviewed our operation and have never indicated any problem with this procedure.

In addition, Section I-B(5) of the document referred to as the HANDBOOK in our past three license applications, and containing the responsibilities, procedures, and regulations governing the safe use of ionizing radiation on the Oklahoma State University Campus, states that:

Each sealed source other than those exempt by size (Condition 12-A(2)) or specific regulation (Condition 12-A(3)) must be swipe-tested for leakage at not greater than 6 month intervals...

However, the current policy of Oklahoma State University is to leak test stored and unused sources at 6 month intervals except in unusual situations where personnel to leak test sources or access may not be readily available.

We are providing below, for your inspection, an itemized description of each source in question, its history, and any action taken.

- (1) Strontium-90 (43.4 mCi) - Responsible individual is Dr. R. Bahr of the Veterinary Teaching Hospital. Source has been in storage and not used for any purpose for the past 9 years but has been leak tested at 6 month intervals.

A single leak test was omitted between April 1, 1991 and April 1, 1993. The cause of the omission was probably a bookkeeping error due to lack of data entry into the records. Dr. Bahr is certain the leak test was taken and our radiological assistant is certain the test was received and counted. Since the source was in storage

and not being used this was not considered to be a violation of our license.

- (2) Cesium-137 (988 mCi) and Cesium-137 (< 150 mCi) - Responsible individual is Dr. H. M. Johnson of the Electronic and Computer Technology Department. Both sources have been in storage and not used for any purpose for the past 12 years but has been leak tested at 6 month intervals.

The single leak test omission, which occurred between April 1, 1991 and April 1, 1993, for these two sources occurred when the former radiological assistant was first employed. He did not realize that it was his responsibility to leak test the two sources and failed to do so. When it was later discovered that the two sources had not been leak tested it was decided to wait until the next 6 month period since the sources were stored and not in use.

- (3) Nickel-63 (15 mCi) - This source originally belonged to Dr. Morrill of the Agronomy Department who retired and left the source with the Department. At this point the source had been in storage and not used for any purpose for about 4 years but had been leak tested at 6 month intervals.

After the retirement of Dr. Morrill in the summer of 1991, it was not possible to find anyone in the Agronomy Department who would leak test and assume responsibility for the source. The decision was then made to put the source in permanent storage according to Condition 12-A(3) and await the funds for commercial disposal. The source is scheduled to be disposed of by ADCO Services before July 1, 1993.

- (4) Nickel-63 (15 mCi) - Responsible individual is Dr. S. Burks of the Zoology Department. We are unable to find any time between April 1, 1991 and April 1, 1993 when this source was not leak tested at 6 month intervals and the results entered into the records. We would be glad to supply the originals or copies of our records if needed.

In addition to the 6-month leak test, the gas chromatograph was leak tested with the gas flowing during each annual inspection.

- (5) Nickel-63 (? mCi) - Responsible individual is Dr.S. Burk of the Zoology Department. This source was acquired in June of 1991. At that time, according to Dr. Burk, the gas chromatograph was not equipped to accomodate a radioactive detector and was placed in storage, according to Condition 12-A(3) and not used. However, there was some usage in early 1992 and the source was leak tested on April 1, 1992 by Dr. Burks lab and the results were entered into the records. As far as is known this source was not used again until the present. This source is currently on loan to Oklahoma State University. It has never been officially transferred to the Oklahoma State University inventory.

Questions or requests for additional information may be directed to Dr. Howard M. Johnson, Cordell 398, Oklahoma State University, Stillwater, OK 74078 or by calling collect on (405) 744-5716.

Howard M. Johnson

Howard M. Johnson Ph.D., RSO

5-17-93

Date

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