



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

February 19, 1997

Dr. Joseph J. Ferretti
Senior Vice President and Provost
University of Oklahoma Health Sciences Center
Oklahoma City, Oklahoma 73190

SUBJECT: NOTICE OF VIOLATION

Dear Dr. Ferretti:

Thank you for your letter dated February 12, 1997, in response to our Notice of Violation (Notice) dated January 22, 1996. We have reviewed your reply and find that no further information is needed at this time regarding the violations described in the Notice. We will review the implementation of your corrective actions during a future inspection to determine that full compliance has been achieved and will be maintained.

Should you have any questions concerning this letter please contact Mr. William Radcliffe at (817) 860-8151 or the undersigned at (817) 860-8213.

Sincerely,

A handwritten signature in cursive script, reading "Linda L. Howell", is positioned above the typed name and title.

Linda L. Howell, Chief
Nuclear Materials Inspection and
Fuel Cycle/Decommissioning Branch

Docket: 030-15184
License: 35-03176-05

cc: Oklahoma Radiation Control Program Director

9702250144 970219
PDR ADOCK 03015184
C PDR

bcc:

DMB - Original (IE-07)

LJCallan

DBSpitzberg

FAWenslawski

CLCain

LLHowell

WHRadcliffe

NMI&FC/DB (5th Floor)

MIS System

RIV Nuclear Materials File - 5th Floor

DOCUMENT NAME: G:\NMIS.O\WHR2\15184AK1.702

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

RIV:NMI&FC/DB	N	C:NMI&FC/DB	E						
WHRadcliffe	WHR	LLHowell							
02/18/97		02/18/97							

OFFICIAL RECORD COPY

bcc:

DMB - Original (IE-07)

LJCallan

DBSpitzberg

FAWenslawski

CLCain

LLHowell

WHRadcliffe

NMI&FC/DB (5th Floor)

MIS System

RIV Nuclear Materials File - 5th Floor

DOCUMENT NAME: G:\NMIS.O\WHR2\15184AK1.702

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

RIV:NMI&FC/DB	N	C:NMI&FC/DB	E						
WHRadcliffe	WR	LLHowell	JK						
02/18/97		02/18/97							

OFFICIAL RECORD COPY

250008



The University of Oklahoma
Health Sciences Center

OFFICE OF THE SENIOR VICE PRESIDENT AND PROVOST

February 12, 1997

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

Re: Reply to a Notice of Violation
Docket #030-15184
License #35-03176-05

Dear Sir/Madam:

In response to the NRC letter dated January 22, 1997, I am submitting our "Reply to a Notice of Violation" in Inspection Report No. 30-15184/96-01 for NRC License #35-03176-05.

I want to assure you that I will do everything possible to maintain a model radiation safety program on the campus of The University of Oklahoma Health Sciences Center. Please do not hesitate to contact me, if you have any questions or concerns.

Sincerely,

Joseph J. Ferretti, Ph.D.
Senior Vice President and Provost

/lsv

Attachments

c: Regional Administrator

wp7/nrcvio197.ltr

dupe 9/6/97
9702140156

97-0713

**Reply to Notice of Violation
Docket No. 030-15184
License #35-03176-05**

Violation A.

Reason for the Violation

The Technical Assistant failed to conduct air sampling and also no soil samples were collected in August 1996.

Corrective Steps That Have Been Taken and the Results Achieved

1. The assistant was instructed again to conduct air and soil sampling on a monthly basis, as required under the current license condition.
2. The RSO will directly supervise the activity under the waste license, rather than accept the license activity report from the Technical Assistant.

The results achieved are that the new Technical Assistant has been conducting air and soil sampling monthly.

Corrective Steps That Will Be Taken to Avoid Further Violations

The new Technical Assistant will report directly to the RSO daily. A list of tasks performed by the Technical Assistant will be prepared. Once the task is performed, the documentation will be signed by the Technical Assistant and RSO and dated.

Date When Full Compliance Will Be Achieved

Full compliance was achieved on December 20, 1996.

Violation B1.

Reasons for the Violation

1. The Technical Assistant failed to placard the vehicle when transporting Low Specific Activity (LSA) materials.
2. The RSO failed to provide specific instructions in writing for maintenance of exclusive use shipment controls, and include them with the shipping paper information to assure that any loading or unloading was performed by the Technical Assistant who has radiological training and resources appropriate for the safe handling of waste containers.

Corrective Steps That Have Been Taken and the Results Achieved

1. Radioactive waste has been transported by the RSO and the new Technical Assistant so that the RSO can provide on the job training. Radioactive waste is currently being transported as White I or Yellow II, Yellow III (if necessary), and not as LSA. The Technical Assistant is being trained regarding DOT regulations and radiation safety. The RSO anticipates the training will last for several months.
2. The RSO has instructed the Technical Assistant in performing safe loading and unloading procedures. Written instructions have been provided to carry along with the shipping papers (see attachment).

The following results have been achieved:

1. A transport vehicle will be placarded whenever necessary.
2. Verbal and written instructions in loading and unloading procedures have been provided to the Technical Assistant, however, written instructions will be carried with the shipping papers, whenever necessary.

Corrective Steps That Will Be Taken to Avoid Further Violations

1. The Technical Assistant will perform his duties under the direct supervision of the RSO.
2. The RSO and the Technical Assistant will attend a DOT regulation and HAZMAT course in the near future.

Date When Full Compliance Will Be Achieved

Full compliance was achieved on December 20, 1996.

Violation B2.

Reasons for the Violation

1. The RSO failed to require researchers to perform appropriate tests to assure that before each waste pickup the external contamination levels were within the allowable limits specified in the DOT regulation for each container and bag.
2. He also failed to assure that the drums carrying liquid container(s) and waste bag(s) were checked for external contamination levels using appropriate tests.

Corrective Steps That Have Been Taken and the Results Achieved

1. A program has been instituted to assure the performance of wipe tests and G-M surveys in all incoming and outgoing drums.
2. A Revised Standard Operating Procedure has been developed (see attachment).
3. The Radiation Safety Office will provide a new plastic bag in which researchers will place their waste bags.
4. New clean bags will be used for placing liquid plastic containers. A new plastic liner will be used for DOT approved drums for each transportation.
5. Revised standard operating procedures for the Radiation Safety Technical Assistant have been developed to assure that DOT requirements are met. The procedures have been discussed with the new assistant and he understood them thoroughly.
6. An internal quality assurance program will be established for the transportation of radioactive waste within the campus. The program will include, but not be limited to, the current procedure (see attachment).
7. A request will be made in the future to the NRC for exemption from any DOT and NRC requirements when receiving and transporting radioactive waste within the campus. A request will also be made to the DOT to grant an exemption.
8. A procedure will be established to assure that the clean outer bags do not become contaminated. A bag holder or other methods will be used to assure that clean new bags do not become contaminated when placing waste bags from research laboratories into new bags before transport. A procedure will be established so that drum surfaces do not become contaminated when placing bags in the drums. This will be accomplished by having new plastic liners in the drums draped over the sides of the drums.

9. If the DOT and NRC grant the exemption, the RSO should continue to implement the internal quality assurance program to assure contamination free surfaces for drums, bags and liquid containers during transport and prevent personnel contamination.

The following results were achieved:

1. New radioactive waste transport procedures have been instituted.
2. A new Technical Assistant is being trained by the RSO and the Radiation Specialist in the fundamentals of radiation safety pertaining to NRC and DOT regulations and waste license conditions. The RSO has also been accompanying the Assistant to pick up waste to provide on-the-job training.

Corrective Steps That Will Be Taken to Avoid Further Violations

1. The RSO will continue to provide direct supervision of the new Technical Assistant.
2. The RSO and Technical Assistant will attend DOT and HAZMAT regulation courses as continuing education in 1997.

Date When Full Compliance Will Be Achieved

Full compliance was achieved on December 20, 1996.

Violation B3.

Reason for the Violation

The RSO transported licensed, low specific activity radioactive waste within the campus from clinical and research laboratories to the waste storage area over a public road in Oklahoma City without low level radioactive waste manifest, however, the RSO required chain of custody and Service Unit Request forms.

Corrective Steps That Have Been Taken and the Results Achieved

The RSO now requires a Uniform Low-level Radioactive Waste Manifest to be carried with the radioactive waste picked up on the campus. Procedures have been initiated to prepare a manifest, along with the chain of custody and the Service Unit Request forms, by the RSO and Technical Assistant.

The following results have been achieved:

A uniform low level radioactive waste manifest is prepared prior to each radioactive waste transported over public roads within the campus.

Corrective Steps That Will Be Taken to Avoid Further Violations

1. The RSO and the Technical Assistant will attend DOT and HAZMAT regulation courses.
2. Radioactive waste will not be transported without a Uniform Low-level Radioactive Waste Manifest.

Date When Full Compliance Will Be Achieved

Full compliance was achieved on December 20, 1996.

RADIOACTIVE WASTE TRANSPORT ON CAMPUS

Standard Operating Procedure

1. Transport LSA (LSA II), White I, Yellow II, Yellow III, or limited quantity.
2. All Department of Transportation requirements must be met.
3. Wipe testing and G-M survey procedures:
 - a. Wipe test and G-M survey the floor of the van with "Q" tip (approximately ten areas) before beginning transport. Also, G-M survey the ambient dose rate at the middle of the truck.
 - b. Wipe test and G-M survey the empty drum before transport (inside and outside surfaces). Place an "EMPTY" label on the drum. Block off "For Radioactive Material Use Only" markings on the van.
 - c. Place superfine at the bottom of the drum (approximately 4") and place liner in the drum.
 - d. When researchers call for a pickup, ask him/her to identify the radionuclide and activity. Take a new empty bag to the laboratory, perform a wipe test on the bag prior to taking the bag to the laboratory to assure contamination free surfaces. Place the original bag in a new bag. Hold the new bag in such a manner that it does not become contaminated while placing the waste bag inside.
 - e. Provide researchers with a plastic container for liquid. Place these containers in the clean plastic bags in a safe manner. Transport these containers in a drum designated for liquid waste.
 - f. G-M survey the individual bag. Record the results on the chain of custody form (both wipe test and G-M survey).
 - g. Ask researchers to identify the contents as:

Biohazard
Toxic
Infectious
Chemical hazard
Carcinogenic
 - h. Identify the waste type on the custody form (e.g., White I, Yellow II, etc.).

I. Weigh the bags with the hand-held scale. Identify the activity of the radionuclides in the respective bags (especially if waste is transported as LSA II).

j. Call the RSO or ARSO and provide the information. They will determine whether the bag can be transported as LSA waste. Once the technical assistant has learned the method of calculation, he/she would be able to do so at the research laboratory. If waste is transported as White I, Yellow II or Yellow III, a manifest must be generated and a copy should be given to the researcher.

k. Place the bag in the drum.

l. G-M survey the drum surface and at 3 feet. (If you cannot transport waste as LSA and if the survey results are less than 0.5 mRem/hr at the surface, then transport as White I). Notify the RSO or ARSO before proceeding. If the surface level is higher than 0.5 mRem/hr, then the waste will be transported as Yellow II. Also, waste may be transported as limited quantity.

m. Make certain all appropriate labeling for the transportation, are placed on the drum on opposite sides (e.g., Biohazard, White I, Yellow II, Radioactive LSA, 'This End Up', etc.).

n. Secure the drum in the van. Brace, fasten and strap securely so that it does not move during normal transport. Make sure the drum is closed and the lid is tightly secured.

o. G-M survey the inside and outside surfaces of the vehicle.

p. Document all survey results. Make certain the van door is locked during transport and waste pickup.

q. Transport the drum to the waste area.

r. G-M survey the drum at surface and 3 feet. Record the results. Wipe test the outside of the drum and count in the appropriate counter. Record the results.

s. Wipe test and G-M survey the van floor. Record the results.

t. Immediately report to the RSO after receiving and transporting of waste is completed.

PLEASE READ CAREFULLY
DOT Written Instructions for Technical Assistant

1. Observe meticulously the written instructions in preparing waste transport van, drums, and clean bags prior to initiating transport.
2. Loading and unloading of radioactive waste drums and other containers must be performed by you only.
3. Emergency procedures must be carried during transport in the front of the van within your reach.
4. No drum shall be transported on the public roads without performing a wipe test and G-M survey to assure that contamination levels and radiation levels are below the limits required by the DOT.
5. All drums must be labeled according to DOT regulations.
6. All drums must be fastened, braced, and secured during transportation.
7. The van must be placarded, if necessary.
8. If you have any questions or concerns, please contact the RSO or ARSO before initiating transportation.

NOTE

1. Please keep these instructions within reach in the front of the van with the shipping papers at all times.
2. Read carefully before initiating transport.