

JAN 16 1991

In Reply Refer To:
License: 40-02194-17
Docket: 030-13079/90-01

South Dakota State University
ATTN: R. Powers, Vice President
P.O. Box 2202
Brookings, South Dakota 57007-0896

Gentlemen:

Thank you for your letter of January 3, 1991, in response to our letter and attached Notice of Violation both dated December 5, 1990. We have reviewed your reply and find it responsive to the concerns raised in our Notice of Violation. We will review the implementation of your corrective actions during a future inspection to determine whether full compliance has been achieved and will be maintained.

Sincerely,

Original signed by
LAWRENCE A. YANDELL *for*

A. Bill Beach, Director
Division of Radiation Safety
and Safeguards

cc:
South Dakota Radiation Control Program Director

bcc w/copy of licensee letter:
DMB - Original (IE-07)
RDMartin
ABBeach
LAYandell
MRodriguez, OC/LFDCB (MS 4503)
CLCain
WLFisher
Inspector
NMSIS
MIS System
RIV Files (2)
RSTS Operator

RIV:NMSIS *AKS*
RABrown:ch
1/14/91

C:NMSIS *OKC*
CLCain
1/15/91

D:DRSS
ABBeach
1/16/91 *for*

IE-07
///

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40-02194-17 PDR

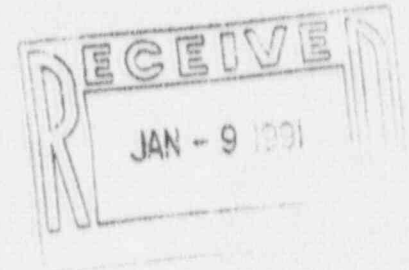
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South Dakota State University
Box 2201
Brookings, SD 57007-2198

Vice President for Administration
(605) 688-6157

January 3, 1991



United States Nuclear Regulatory Commission - Region IV
ATTN: Mr. A. Bill Beach, Director
Division of Radiation Safety and Safeguards
611 Plaza Drive, Suite 1000
Arlington, TX 76011

REFERENCE: License: 40-02194-17
Docket: 030-13079/90-01

Dear Mr. Beach:

This is South Dakota State University's response to the Notice of Violations found during the radiation safety inspection carried out by Mr. Robert Brown on November 5-6, 1990, and reported in your letter of December 5, 1990.

A review of the violations cited by Mr. Brown has been completed by the Radiation Safety Committee, the office of Research and this office. This review concluded, in part, that additional staff resources are needed to support the requirements of a number of regulatory agencies, including specifically the Nuclear Regulatory Commission. The University was in the process of expanding its commitment in this area and will proceed forthwith, under the leadership of the Director of Research, in this regard.

With regard to the failure of the Radiation Safety Committee to meet regularly, we believe the additional staff support will facilitate more systematic preparation of agenda materials for the Committee so that it can meet at least on a quarterly basis. The pending license renewal application includes a commitment to quarterly meetings of the Radiation Safety Committee.

The University's response to each of the violations is as follows:

- A. Item H on page A3 of the application states that the radiation safety officer shall make two inspections each year of the various facilities using radioisotopes.

Contrary to the above, the radiation safety officer stated that he routinely did not perform two inspections per year of each facility using radioisotopes. He stated that some facilities were not inspected at all.

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IC 91-008

RESPONSE:

1. **Reason for violation:** The limited time allocation was aggravated by the need to prepare and submit the Decommissioning Funding Plan in July. The development of this Plan took up most of the RSO's summer appointment except for the required routine of badge exchanges, receipt of shipments and training of new users.
2. **Corrective steps taken:** All areas where unsealed sources are used have been visited by the RSO since the NRC inspection. Smear tests have been taken. Smear test records have been checked. General adherence to the requirements of the radiation safety program was verified.
3. **Corrective action to be taken:** With augmentation of staffing in the Radiation Safety Office, it should be possible for the RSO or the technical assistant to make the required visits on a semiannual basis.
4. **Compliance date:** South Dakota State University is now in compliance. The employment of a technical assistant should ensure continued compliance.

- B. Item 11B of the application requires that calibration of survey meters be performed every 6 months.

Contrary to the above, the radiation safety officer stated that survey meters used in various research laboratories were not routinely calibrated every 6 months, but rather at 12-month intervals.

RESPONSE:

1. **Reason for violation:** The limited time allocation was aggravated by the need to prepare and submit the Decommissioning Funding Plan in July. The development of this Plan took up most of the RSO's summer appointment except for the required routine of badge exchanges, receipt of shipments and training of new users.
2. **Corrective steps taken:** The survey meters have been calibrated since the NRC inspection. The survey meter (Eberline ESP-1, #386) and probes (Eberline HP-260, #603285; Eberline HP-270, #605045; Ludlum 44-3, #PR 048203) used by the RSO were calibrated by Ludlum Measurements on September 6, 1990. A Ludlum Model 3 meter (#76062) with Model 44-7 probe (PR 069824) was calibrated on July 29, 1990, at the time of purchase. A total of 5 meters were in need of calibration.

3. **Corrective action to be taken:** With augmentation of staffing in the Radiation Safety Office, it should be possible for the RSO or the technical assistant to make required calibrations on a semiannual basis.
 4. **Compliance date:** South Dakota State University is now in compliance.
- C. Item 15D, No. 4, of the application requires, in part, that records be maintained of the dates and results of smear surveys.

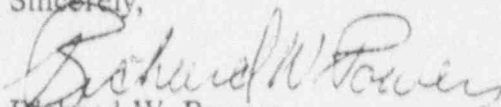
Contrary to the above, no records were maintained of smear surveys performed in the Winter Hardiness Laboratory since September 14, 1988.

RESPONSE:

1. **Reason for violation:** If semiannual visits by the RSO had been made on a timely basis, the lack of smear test records would have been discovered. The requirement for biweekly smear tests and maintenance of records was discussed during the training session held on May 15, 1990, for the workers in the Winter Hardiness Laboratory. It should be noted that P-32 usage in the laboratory began on May 30, 1990, approximately 5 months prior to the NRC inspection.
2. **Corrective steps taken:** Verbal and written instructions regarding the need and procedures for smear tests and records have been given to the Principal Investigator and the workers in this laboratory. The Principal Investigator has formally notified the RSO of the institution of corrective procedures and his intent to adhere to the requirements. Responsibility for taking and recording the tests has been assigned. The RSO has verified that smear testing has begun.
3. **Corrective steps to be taken:** Verification of continued adherence to requirements for smear tests and records will be made during the semiannual inspections by the RSO.
4. **Compliance date:** South Dakota State University is now in compliance. The employment of a technical assistant should ensure continued compliance.

The inspection by Mr. Brown was most helpful in that it focused University attention on the goals of its Radiation Safety Program. If you have any questions regarding this response, do not hesitate to contact me.

Sincerely,



Richard W. Powers

Vice President for Administration

DEC - 5 1990

In Reply Refer To:
License: 40-02194-17
Docket: 030-13079/90-01

South Dakota State University
ATTN: R. Powers, Vice President
P.O. Box 2202
Brookings, South Dakota 57007-0896

Gentlemen:

This refers to the routine, unannounced radiation safety inspection conducted by Mr. R. Brown of this office on November 5-6, 1990, of the activities authorized by NRC Byproduct Material License No. 40-02194-17, and to the discussion of our findings held by the inspector with members of your staff at the conclusion of the inspection.

The inspection was an examination of the activities conducted under the license as they relate to radiation safety and to compliance with the Commission's rules and regulations and the conditions of the license. The inspection consisted of selective examinations of procedures and representative records, interviews of personnel, independent measurements, and observations by the inspector.

During this inspection, certain of your activities were found not to be conducted in full compliance with NRC requirements. Consequently, you are required to respond to this matter in writing, in accordance with the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Your response should be based on the specifics contained in the Notice of Violation enclosed with this letter.

The inspector noted minimal management oversight of your radiation safety program. This was evidenced by the fact that your radiation safety committee has not met since August 31, 1989. In addition, the radiation safety officer did not appear to have sufficient time or resources necessary to perform routine tasks required by the NRC.

The inspector also reviewed the actions you had taken with respect to the violation observed during our previous inspection conducted on September 14, 1988. He verified that the corrective actions had been implemented.

We are concerned about the implementation of your program in the area of management control that permitted these violations to occur. Consequently, in your reply to this letter, you should describe those specific actions planned or taken to improve the effectiveness of the management control of your licensed operations, with particular emphasis on measures currently being taken to prevent further violations.

*RIV:NMSIS
RABrown:nh
/ /90

*C:NMSIS
CLCain
/ /90

D:DRSS
JABBeach
12/5/90

*Previously Concurred.

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In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter, the enclosures, and your response to this letter will be placed in the NRC Public Document Room.

The response directed by this letter and the accompanying Notice is not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Should you have any questions concerning this letter, we will be pleased to discuss them with you.

Sincerely,

Original Signed By:

A. B. BEACH

A. Bill Beach, Director
Division of Radiation Safety
and Safeguards

Enclosure:
Appendix - Notice of Violation

cc:
South Dakota Radiation Control Program Director

bcc:
DMB - Original (IE-07)
RDMartin
ABBeach
LAYandell
MRodriguez, OC/LFDCB (4503)
*WLFisher
*CLCain
*RBrown
*NMSIS
*MIS System
*RIV Files (2)
*RSTS Operator
*REHall, URFO

*W/766

APPENDIX

NOTICE OF VIOLATION

South Dakota State University
Brookings, South Dakota 57007-0896

Docket No. 030-13079/90-01
License No. 40-02194-17

During an NRC inspection conducted on November 5-6, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the violations are listed below:

License Condition 22 states, in part, that the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the application dated June 14, 1983.

- A. Item H on page A3 of the application states that the radiation safety officer shall make two inspections each year of the various facilities using radioisotopes.

Contrary to the above, the radiation safety officer stated that he routinely did not perform two inspections per year of each facility using radioisotopes. He stated that some facilities were not inspected at all.

This is a Severity Level IV violation (Supplement VI).

- B. Item 11B of the application requires that calibration of survey meters be performed every 6 months.

Contrary to the above, the radiation safety officer stated that survey meters used in various research laboratories were not routinely calibrated every 6 months, but rather at 12-month intervals.

This is a Severity Level IV violation (Supplement VI).

- C. Item 15D, No. 4, of the application requires, in part, that records be maintained of the dates and results of smear surveys.

Contrary to the above, no records were maintained of smear surveys performed in the Winter Hardiness Laboratory, since September 14, 1988.

This is a Severity Level V violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, South Dakota State University is hereby required to submit to this office, within 30 days of the date of the letter transmitting this Notice, a written statement or explanation in reply, including for each violation: (1) the reason for the violation if admitted,

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- (2) the corrective steps which have been taken and the results achieved,
- (3) the corrective steps which will be taken to avoid further violations, and
- (4) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending the response time.

Dated at Arlington, Texas,
this 5th day of December 1990

INSPECTOR'S REPORT
Office of Inspection and Enforcement

Brown, R.A.
REVIEWER
C.L. Canale

INSPECTOR: BROWN, R.A.

| LICENSEE/VENDOR | TRANSACTION TYPE | DOCKET NO. (8 digits) OR LICENSE NO. BY PRODUCT (13 digits) | REPORT | | NEXT INSP. DATE |
|---------------------------------|------------------|---|-------------|----------|-----------------|
| | | | NO. | SEC. | MO. |
| <u>South Dakota State Univ.</u> | X I - INSERT | <u>03013079</u> | <u>9001</u> | <u>A</u> | <u>11 92</u> |
| | M - MODIFY | | | | |
| | D - DELETE | | | | |
| | R - REPLACE | | | | |

| PERIOD OF INVESTIGATION - INSPECTION | | | | | | INSPECTION PERFORMED BY | | ORGANIZATION CODE OF REGION (MO CONDUCTING ACTIVITY) (See 16 MC 0530) | | | | |
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| FROM | | TO | | | | 1 - REGIONAL OFFICE STAFF | | OTHER | | MAINTENANCE REPORT NO. (When Maintenance Reporting System) | | |
| MO. | DAY | YR. | MO. | DAY | YR. | 2 - RESIDENT INSPECTOR | | REGION | DIVISION | BRANCH | | |
| <u>11</u> | <u>05</u> | <u>90</u> | <u>11</u> | <u>06</u> | <u>90</u> | 3 - PERFORMANCE APPRAISAL TEAM | | <u>4</u> | <u>13</u> | <u>4</u> | | |

| REGIONAL ACTION (Circle one box only) | TYPE OF ACTIVITY CONDUCTED (Circle one box only) | | | |
|---|--|---|--|--|
| <input type="checkbox"/> 1 - NRC FORM 561 <input checked="" type="checkbox"/> 2 - REGIONAL OFFICE LETTER | <input checked="" type="checkbox"/> 01 - SAFETY (fee) <input type="checkbox"/> 02 - INCIDENT <input type="checkbox"/> 03 - ENFORCEMENT <input type="checkbox"/> 04 - MGMT AUDIT | <input type="checkbox"/> 05 - MGMT VISIT <input type="checkbox"/> 07 - SPECIAL (fee) <input type="checkbox"/> 08 - VENDOR <input type="checkbox"/> 09 - MAT ACCT | <input type="checkbox"/> 10 - PLANT SEC <input type="checkbox"/> 11 - INVENT VER <input type="checkbox"/> 12 - SHIPMENT/EXPORT <input type="checkbox"/> 13 - IMPORT | <input type="checkbox"/> 14 - INQUIRY (RD 14) <input type="checkbox"/> 15 - INVESTIGATION |

| INSPECTION INVESTIGATION FINDINGS (Check one box only) | | | | TOTAL NUMBER OF VIOLATIONS AND DEVIATIONS | ENFORCEMENT CONFERENCE HELD | REPORT CONTAINS THE INFORMATION | LETTER OR REPORT TRANSMITTAL DATE |
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| A | B | C | D | A | A | A | MO. DAY YR. |
| <input checked="" type="checkbox"/> | | | | <u>03</u> | 1 - YES | 1 - YES | <u>11 06 90</u> |
| 1 - CLEAR | 2 - VIOLATION | 3 - DEVIATION | 4 - VIOLATION & DEVIATION | | | | |

| MODULE INFORMATION | | | | | | | | | | | MODULE INFORMATION | | | | | | | | | | | | |
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| REC. NO. | MODULE NUMBER | INSP. NO. | PRIORITY | DIRECT INSP. TIME FOR THIS INSPECTION | PERCENTAGE COMPLETED TO DATE | STATUS | PHASE | MANUAL CHAPTER | PROCEDURE NUMBER | LEVEL | REC. NO. | MODULE NUMBER | INSP. NO. | PRIORITY | DIRECT INSP. TIME FOR THIS INSPECTION | PERCENTAGE COMPLETED TO DATE | STATUS | PHASE | MANUAL CHAPTER | PROCEDURE NUMBER | LEVEL | | |
| | 530703 | | A | 0.01 | 100% | F | | | | | | 530703 | | A | 0.01 | 100% | F | | | | | | |
| | 587100 | | A | 0.04 | 100% | C | | | | | | 592702 | | A | 0.00 | - | - | | | | | | |
| | 583822 | | A | 0.02 | 100% | C | | | | | | | | A | | | | | | | | | |
| | 586740 | | A | 0.01 | 100% | C | | | | | | | | A | | | | | | | | | |

Mark through modules not reviewed. Add any others from AIC 2800. Fill in leading 0's for hours.

INSPECTOR'S REPORT
 (Continuation)
 Office of Inspection and Enforcement

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| DOCKET NO. (8 DIGIT) OR LICENSE NO. (BY PRODUCT) (12 DIGIT) | | REPORT NO. | | MODULE NUMBER | | VIOLATION SEVERITY OR DEVIATION | | TYPE RELATED | |
| 03013079 | | 9001 | | 871001 | | A B C D | | A C B D | |

VIOLATION OR DEVIATION (ENTER IN 2000 SPACES OR MORE. IF TWO OR MORE ARE APPLICABLE, A MAY BE NECESSARY TO IDENTIFY EACH LINE ITEM IN 20 CHARACTER SPACES.)

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license condition 2.2 states, in part, that the licensee shall conduct its program in accordance with the statements, representations and procedures contained in the application dated June 14, 1983.

A. Item 4 on page A3 of the application states that the Radiation Safety Officer shall make 2 inspections each year of the various facilities using radioisotopes.

Contrary to the above, the Radiation Safety Officer stated that he routinely did not perform 2 inspections per year of each facility using radioisotopes. He stated that some were not inspected at all.

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| NRC FORM 700 A 1-81 4-11-76 INSPECTOR'S REPORT (Continuation) Office of Inspection and Enforcement | BOOKLET NO. (IF APPLICABLE) OR LICENSE NO. (BY PRODUCT) (13 DIGIT) | | REPORT NO. SER. | | MODULE NUMBER 871001 | VIOLATION OF DEVIATION RELATED SUPP. |
| | 0303079 | | 9001 | | VIOLATION SEVERITY OF DEVIATION | |
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| | | | | | A C B D | |
| VIOLATION OF DEVIATION LEADING UP TO DEVIATION SHOULD BE REPORTED. IF THE VIOLATION IS A PRELIMINARY VIOLATION, IT SHOULD BE REPORTED AS SUCH. (LIMIT SPACE TO BE OFFICER'S BEST.) | | | | | | |
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B. Item 11 B requires that calibration of survey meters be performed every six months.

Contrary to the above, the Radiation Safety Officer stated that survey meters used in various research laboratories were not routinely calibrated every six months.

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INSPECTOR'S REPORT
(Continuation)
Office of Inspection and Enforcement

| DOCKET NO. IS (TYPE) OR LICENSE NO. (BY PRODUCT) (13 digits) | | REPORT NO. | | MODULE NUMBER | VIOLATION SEVERITY OR DEVIATION | BY RELATED | SUP. |
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| | | | B | | 1 2 3 4 5 6 D | A C | |
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VIOLATION OR DEVIATION SEVERITY TO BE INDICATED BY CHECK MARK. IF TWO SEVERITY MARKS ARE NUMBER, IT WILL BE NECESSARY TO DETERMINE LIMIT FROM TO BE OPERATOR'S BEST.

C. ~~Condition~~ Item 15 D, number 4 requires, in part, that records be maintained of the dates and results of smear surveys.

Contrary to the above, no records were maintained of smear surveys performed in the Winter Hardiness hall.

S.L. IV Supp. VI

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