

JAN 16 1991

In Reply Refer To:  
License: 03-19683-01  
Docket: 030-19089/90-01

Department of the Army  
Little Rock District  
Corps of Engineers  
ATTN: Colonel Charles McClosky  
District Engineer  
P.O. Box 867  
Little Rock, Arkansas 72203

Gentlemen:

Thank you for your letter of December 17, 1990, in response to our letter and attached Notice of Violation both dated December 4, 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:  
Oklahoma Radiation Control Program Director

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

RIV:NMSIS *RAY*  
RALeonardi:ch  
1/14/91

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

D:DRSS  
ABBeach *hwy/ft*  
1/16/91

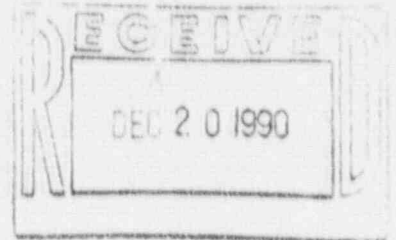
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REQ4 LIC30  
03-19683-01 PDR  
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REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
LITTLE ROCK DISTRICT, CORPS OF ENGINEERS  
POST OFFICE BOX 867  
LITTLE ROCK, ARKANSAS 72203-0867  
17 December 1990



REPLY TO NOTICE OF VIOLATION  
License: 03-19683-01  
Docket: 030-19089/90-01

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

Gentlemen:

This is a Reply to a Notice of Violation resulting from the inspection conducted by Messrs Richard A. Leonardi, Jr. and Bruce Earnest of the Region IV Office, Arlington, Texas, on October 29-30, 1990, of the activities authorized by our NRC Byproduct Material License No.03-19683-01.

In accordance with 10 CFR 2.201 and the instructions contained in the enclosed Appendix of the Notice of Violation the following explanation is submitted for each of the violations cited, respectively A-D.

Violation A occurred due to the sudden retirement of the RSO, Radiation Safety Officer, on 31 August 1990. This was brought on by the uncertainty of the lump sum retirement benefit being suspended during the 1991 congressional budget hearings. No other personnel were trained at that time in the Little Rock District at such short notice to act as RSO. The appointed interim Acting Chief of Safety had no prior training in this regard nor any knowledge of the requirements.

The following corrective steps were immediately initiated following the inspection out briefing on 30 October 1990. An amendment to the license was immediately submitted to appoint Mr. Enoch G. Cole as interim acting RSO who had been trained by Troxler in the use and management of the gauges in question. This was submitted through US Army Corps of Engineers Safety HQ, Washington, D.C. on 13 November 1990. Mr. Cole was scheduled and sent to U.S. Army Radiation Safety School 26-30 November 1990 to be qualified to act as RSO until a new Chief of Safety is selected and trained to act as permanent RSO. A copy of his diploma is enclosed. As of this date of graduation full compliance was achieved. Once a new Chief of Safety is trained to act as RSO, the license will be amended to appoint the Chief of Safety as the RSO and Mr. Cole as assistant RSO. This should hopefully preclude future violations such as this from occurring again.

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Violation B occurred due to an oversight in having double coverage in monitoring the currency of leak tests. The primary user was under extremely stressful circumstances and missed the suspense date. The subsequent leak tests revealed that no leakage was present.

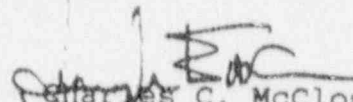
A new standard operating procedure has been drafted to include a suspense file monitored in the District Safety Office to back up the primary user in the field to insure these leak tests are performed in a timely manner. The assistant safety specialist has also been briefed on this requirement as well as the primary user. A copy of the latest leak test will be kept with the gauges annotated with the suspense date for the next required leak test. This date will also be annotated on the utilization log. On 17 December 1990 these procedures will be implemented.

Violation C occurred due to confusion on the part of the primary user as to the exact requirements of the NRC as to transfer and shipping documents. Apparently the training received was not very concise in this regard. Under the direction of other government personnel at the division level the gauge was transferred to a service company.

Since Mr. Cole has attended the formal U.S. Army Radiation Safety School and been debriefed on the inspection findings, this point has been clarified. This requirement has been explicitly noted in the new standard operating procedure as well as other specific handling procedures. This will be fully complied with effective 17 December 1990.

Violation D occurred in conjunction with violation A where the license was not amended in a timely manner due to the sudden retirement of the RSO/Chief of Safety. This has been corrected by appointing the primary user, Mr. Cole, as the interim acting RSO and subsequent to the appointment of a new Chief of Safety/RSO as the assistant. Full compliance was achieved when the license was amended on 17 December 1990. The standard operating procedure contains specific instructions in regards to handling as to who must be present and who is authorized to use these gauges.

Sincerely,

  
Charles C. McCloskey III  
Colonel, Corps of Engineers  
District Engineer

Encl



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV  
811 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 76011

DEC 4 1990

In Reply Refer To:  
License: 03-19683-01  
Docket: 030-19089/90-01

Department of the Army  
Little Rock District  
Corps of Engineers  
ATTN: Colonel Charles McCloskey  
District Engineer  
P.O. Box 867  
Little Rock, Arkansas 72203

Gentlemen:

This refers to the routine, unannounced radiation safety inspection conducted by Messrs Richard A. Leonardi, Jr. and Bruce Earnest of this office on October 29-30, 1990, of the activities authorized by NRC Byproduct Material License No. 03-19683-01, and to the discussion of our findings held by the inspectors 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, and observations by the inspectors.

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 inspectors noted that your radiation safety officer (RSO) had retired on August 31, 1990. A successor had not been appointed even though your staff continued to use byproduct material. During the inspection you committed to promptly request an amendment of your NRC license to have an RSO identified in your license. In response to this letter, you should comment specifically as to the measures you have implemented to assure this problem will not recur.

The inspectors also reviewed the actions you had taken with respect to the violations observed during our previous inspection conducted on September 25, 1986. They verified that the corrective actions for Violations C, D, and H had been implemented as stated in your reply dated September 25, 1986. However, Violation C had recurred since the previous inspection. This item is identified as a Violation of License Condition 15 in the attached Notice.

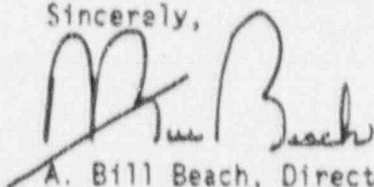
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In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter, the enclosures, and your response to this letter will be placed in the NRC Public Document Room.

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,

A handwritten signature in cursive script that reads "A. Bill Beach". The signature is written in dark ink and is positioned above the typed name.

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

Enclosure:  
Appendix - Notice of Violation



APPENDIX

NOTICE OF VIOLATION

Department of the Army  
Corps of Engineers  
Little Rock, Arkansas

Docket No. 030-19089/90-01  
License No. 03-19683-01

During an NRC inspection conducted on October 29-30, 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:

- A. Condition 21 requires, in part, that licensed material be possessed and used in accordance with statements, representations, and procedures contained in the application dated March 3, 1981.

Item No. 7 of this application specifies by name the individual to serve as the radiation safety officer.

Contrary to the above, the individual designated as the radiation safety officer (RSO) discontinued his function as RSO on August 31, 1990, and the licensee continued to use licensed material without assigning a successor.

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

- B. Condition 15.A requires that sealed sources contained in Troxler Model 3400 series moisture/density gauges be tested for leakage and/or contamination at intervals not to exceed 6 months.

Contrary to the above, Troxler moisture/density gauges, Serial Nos. 11250 and 8059 containing sealed sources of Cs-137 and Am-241, were not tested for contamination or leakage from July 2, 1987, to June 1, 1988.

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

- C. 10 CFR 30.51(a) requires, in part, that each person who receives byproduct material keep records showing the receipt, transfer, and disposal of byproduct material.

Contrary to the above, a Troxler moisture/density gauge containing sealed sources of byproduct material, was transferred to a gauge service company between 1988 and 1990 for calibration without the licensee maintaining a record of transfer.

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

- D. Condition 11.A requires that licensed materials be used by, or under the supervision and in the physical presence of, specifically named individuals.

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Contrary to the above, between 1988 and 1990 an individual routinely used a Troxler gauge containing licensed materials when not in the physical presence of an individual specifically named in the Condition.

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

Pursuant to the provisions of 10 CFR 2.201, Department of the Army, Corps of Engineers, is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region IV, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Dated at Arlington, Texas  
this 4th day of December 1990

CESWL-SO

13 November 1990

MEMORANDUM FOR Commander HQUSACE ATTN: CESO-I, 20 Massachusetts Ave, NW Washington, DC 20314-1000

SUBJECT: Amendment of United States Nuclear Regulatory Commission (NRC) Materials License

1. Request that license number 03-19683-01 be amended. Please amend item 11 to read as follows, "License material listed in subparagraph 6a shall be used by or under the supervision and in the physical presence of Enoch G. Cole, interim Radiation Protection Officer."
2. License material listed in subparagraph 6b and 6c shall be used by or under the supervision and in the physical presence of individuals who have completed the Troxler Training Course in the use of the devices and who are designated by Enoch G. Cole. Mr. Cole is designated interim acting Radiation Protection Officer for the Little Rock District Corps of Engineers, and has been determined to be qualified for such by a representative of the Nuclear Regulatory Commission based on previous completion of a Troxler training course.
3. Future amendment to Nuclear Regulatory Commission license will be made contingent upon selection of a permanent Safety Officer for the Little Rock District Corps of Engineers. All other Nuclear Regulatory Commission license provisions will remain current.
4. Mr. Enoch G. Cole is also scheduled to receive USA Chemical School, Fort McClellan, AL; Operation Radiation Safety Course, 26-30 Nov. 1990. Mr. Cole will be designated in future license amendments as the alternate Radiation Protection Officer for the Little Rock District Corps of Engineers.

*Gordon Bailey*  
GORDON BAILEY  
Acting Chief, Safety and  
Occupational Health Office



STANDARD OPERATING PROCEDURES  
TROXLER NUCLEAR MOISTURE-DENSITY GAUGE

LITTLE ROCK DISTRICT OFFICE

1. PURPOSE. This Standard Operating Procedure (SOP) establishes storage, transportation, handling and use procedures for the Troxler Nuclear Moisture-Density Gauge assigned to the Little Rock District Office. The SOP is to ensure full compliance with applicable rules and regulations.

2. REFERENCES.

- a. NRC License No. 03-19683-01
- b. Title 10, Code of Federal Regulations, Chap 19 & 20
- c. Title 29, Code of Federal Regulations, Part 1910
- d. Title 49, Code of Federal Regulations
- e. AR 385-11, Ionizing Radiation Protection
- f. ER 385-1-80, Radiological Safety
- g. OM 385-1-1, TD Safety & Occupational Health Management Document

3. RESPONSIBILITIES

a. Mr. Enoch G. Cole is assigned as Alternate Radiation Protection Officer. Messrs. Carsno N. Mitchell and Scotty B. McCollum have been qualified by the Radiation Protection Officer (RPO) as alternate users.

b. Each user shall comply with this SOP, conditions of the NRC License, Little Rock District Radiological Safety Program and the appropriate laws and regulations when working the the gauge. The user shall contact the Radiation Protection Officer anytime a question on safety, NRC license requirements or regulations arise.

c. All users shall limit their personal exposures to radiation to the lowest practicable level. They shall prohibit the access of other persons to the immediate area when the gauge is in use. Experience shows employees incur no or only very small amounts of measurable exposure when the gauge is handled properly.

d. Any personal exposure appreciably above normal or approaching the exposure limits defined by NRC and Army, shall be investigated by the RPO. If an individual's Thermoluminescent Dosimeter (TLD) badge indicates the employee exceeded the permissible exposure limit, the RPO will conduct an investigation and prepare and submit a written incident report and explanation to the Chief of Engineers.

e. The designated user and alternate RPO, Mr. Enoch G. Cole, is responsible for maintaining and leak testing the gauge in accordance with the manufacturer's instruction and this SOP. The designated user shall have the gauge calibrated annually or more often if needed.

#### 4. STORAGE.

a. The gauge shall be stored in the designated location in the District soils laboratory located at Fort Roots when not in use. The gauge shall be stored in its carrying case and the storage space shall be locked when the user is not present. A cord or plaque bearing the radiation symbol shall be posted on the door to the storage area.

b. The gauge shall be kept in its carrying case whenever it is not in use and when it is being transported. The gauge shall be stored in the designated storage area in the laboratory each night, on weekends, during holidays and during any period of non use. The only exceptions are those listed in paras. 4c. and d. below and when the gauge is returned to the manufacturer for calibration.

c. The gauge may be stored temporarily over night in other acceptable temporary storage areas at the work site when necessitated by DOE security/escort security requirements which unduly delay movement from the using site to the laboratory at the end of the work day. This temporary storage is to be temporary and must not be abused for expediency.

d. The gauge, when taken to the field for use, shall be stored temporarily in an acceptable storage area. This temporary storage area shall meet the requirements specified in various regulations. (Per NRC License).

#### 5. HANDLING.

a. Only designated users shall use the gauge. Persons other than the user may help in the loading, unloading and carrying the gauge when it is in the carrying case. The user shall ensure that persons not associated with the gauging activity are kept clear of the immediate work area whenever the probe is to be extended for readings. It is good practice to keep persons clear of the immediate area whenever the gauge is on site for work.

b. The probe shall be extended only when it is necessary to perform readings or to take wipe tests. The probe handle shall be kept locked until time for the probe to be used. The lock shall be replaced on the handle after the readings are completed. The probe shall be locked in the closed position whenever the gauge is being transported. A key to this lock shall be kept in the carrying case along with required paperwork specified in paragraph 6b.

c. Under no circumstances should a person touch the probe with any part of the body. The probe should not be extended until the test hold has been made and the probe is to be inserted in the hold. The gauge shall be held close to the ground or surface to be tested when the probe is to be extended. The user shall use the heavy instrument case to shield his/her body from the exposed probe as much as possible thereby limiting the exposure to the lower legs, ankles and feet.

d. The gauge shall be operated in accordance with the manufacturer's instructions and this SOP. No repairs to this gauge shall be attempted. The gauge shall be returned to the manufacturer for all repairs. Before the gauge is returned to the manufacturer, notification will be given to the Radiological Protection Officer as required by the Radiological Safety Program.

#### 6. TRANSPORTING.

a. The gauge, with only one exception, shall be transported in the trunk of automobiles or in a locked toolbox secured to the bed of a pickup truck. The exception is the gauge may be carried in the open bed of a pickup truck with the tail gate closed when the gauge is moved from test site to test site at the same job location. The gauge shall always be returned to the case when being transported as the case is appropriately marked to be in conformance with prevailing with prevailing NRC and DOT labeling requirements.

b. The user, or other authorized transporter, when traveling on public highways, shall complete the District's preprinted transportation document as to destination, date, etc., and keep this document on the front seat. Additionally, the transporter must have a copy of the NRC license and a radiation placard for the vehicle. The NRC license can be kept in the gauge carrying case. The radiation symbol placard must be displayed in the vehicle's rear window.

c. The gauge shall not be left in the vehicle unattended. When the transporter leaves the vehicle, he/she shall lock the vehicle. At night, the gauge shall be taken into the motel room for security reasons when being transported over night. This situation would only occur when the gauge is taken to the Dallas area for recalibration or repair by the manufacturer.

#### 7. PERIODIC LEAK TESTING.



a. The RPO or alternate RPO will leak test the gauge at least semi-annually. The user shall wipe test the gauge at least monthly when the gauge is being used. The semi-annual test will be made with wipe test kits provided by the US Army Lexington Blue Grass Laboratory or an equivalent kit. The monthly user wipe test will be made with damp paper towels and cotton swabs.

b. The user shall dampen a paper towel(s), hold it with 18" tongs, tip the gauge toward himself/herself, extend the probe slightly and wipe the probe thoroughly with the paper towel. The probe shall be retracted and the gauge returned to its case. The user shall spread the towel on a flat surface and use the Vicron Portable Survey meter to scan the towel for removable contamination.

c. It is anticipated that the meter will detect nothing but background reading. If it appears that low level radiation is detected above background, repeat the test. If a repeat wipe test deems to confirm an apparent leakage, immediately return the device to storage and call the RPO.

d. If the wipe test indicates there may be a high level leak, DO NOT RETEST! Immediately return the gauge to storage and call the RPO.

e. In the event of a leak, it will be necessary to use the survey meter(s) and scan all surfaces in the area of the wipe test activity to see if the contamination has been spread. It is essential to minimize spreading or enlarging the area of potential contamination. Therefore, all personnel in the area, their clothing and equipment will also have to be scanned. No person should be permitted to leave nor equipment moved from the area until readings show they are not contaminated.

f. The RPO will provide specific instructions for the user to follow. However, the user must also immediately notify the Little Rock District Safety Officer, 501-324-5616, in accordance with our standard operating procedure. The control of the potentially contaminated area will be turned over to State Health Department Radiological safety personnel if they so desire.

#### 8. LEAK TEST RECORD KEEPING.

a. A record of all leak tests will be kept by the user. The results of monthly, semi-annual and other leak tests shall be entered on Record of Radioactive Material, Eng Form 3309-R. This form shall be the permanent field log that stays with the gauge.

b. The RPO will maintain the official ENG Form 3309-R in the Safety and Occupational Health Office. The official record will include the test results of the routine semi-annual and annual wipes, recalibration wipe tests made by the manufacturer and wipe

tests made upon receipt and transfer of the gauge. The user shall provide the RPO with a copy of the annual recalibration test results.

c. When the gauge is taken to the field the user shall perform a wipe test before using the gauge. The results of this test shall be entered on the form. The gauge will be wipe tested upon return to District Soils Laboratory and the results entered on the form. Wipe tests shall be performed each time the gauge is moved to a different site and used by a user other than the one who performed the last wipe test.

#### 9. PORTABLE RADIOLOGICAL SURVEY METER.

a. The Bicron Corporation Portable Survey Meter, model 200, and Pancake GM Probe, Model PGM, shall be used in accordance with the manufacture's instructions. Extreme care must be used to protect the GM tube's thin mica window from being punctured.

#### 10. THERMOLUMINESCENT DOSIMETER USE AND RECORD KEEPING.

a. The Thermoluminescent Dosimetry (TLD) service is provided by the US Army Lexington Blue Grass Laboratory, Lexington, KY. The TLD badges are provided in place of the old film badges. The LTDs shall be used, stored and handled in accordance with the Dosimetry Customer Manual provided by the laboratory.

b. The TLD's are numbered in sequence and marked for the period of time in which they are to be used. Ms. Peggy W. Paulsen of the Occupational Safety and Health Office is responsible for distributing the new badges, collecting the used badges, completing the accompanying Record of Use and returning the badges with the Record of Use to the laboratory within one week after the change of badges.

c. A TLD badge will be issued to an individual only when the person will be working with or around the gauge. A badge can be worn by one person only during the specific use period for that badge. The unused badges will be kept in the Safety and Occupational Health Office.

d. One TLD badge is designated the Control Film Badge. The control badge is used to measure background radiation. This control badge must not be kept in the vicinity of the gauge as this could affect the reading. The control badge shall therefore be kept in the Safety and Occupational Health Office along with the unused badges.

e. The laboratory will analyze (read) the reusable badges and report the results to the Little Rock District Safety Office. Ms. Paulsen will upon receipt of the information, provide each sampled employee a copy of the results from the previous wearing period.



11. ANNUAL CALIBRATION.

a. The user will either transport the gauge by Government vehicle to Troxler Laboratory, Arlington, TX., or freight the gauge with a recognized radiation material transporter. Shipping and/or transporting activities shall comply with applicable rules and regulations. The user shall arrange with the manufacturer for the calibration service before the gauge is shipped.

b. The user shall notify the RPO whenever it is planned to send the gauge for calibration. The RPO maintains a current locator file for each radiological device in the District and should be notified if they are stored anywhere but their designated storage location.

ACKNOWLEDGED:

Authorized User - Signatures

Date

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*for Gordon Bailey*  
Enoch G. Cole  
Alternate Radiological  
Protection Officer

:

United States Army Chemical School  
Fort McClellan, Alabama



awards this  
**Diploma**  
to

ENOCH COLE

THIS IS TO CERTIFY SUCCESSFUL COMPLETION OF THE

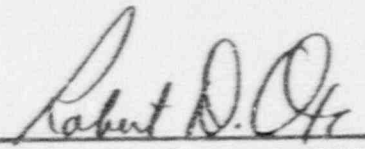
OPERATIONAL RADIATION SAFETY COURSE  
CLASS 001-91, 26-Nov-90 - 30-Nov-90

IN TESTIMONY WHEREOF, AND BY THE AUTHORITY VESTED

IN US, WE DO CONFER THIS DIPLOMA

THIS 30TH DAY OF NOVEMBER 1990



  
Brigadier General, USA  
Commandant