

P.O. Box 5804, Little Rock, Arkansas 72215 / Phone 501 225-1395

October 11, 1985

United States Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011

Attn: R. E. Hall

Re: License No. 03-21354-01

Gentlemen:

In response to your letter of September 20, 1985 concerning inspections conducted at Rock Springs, Wyoming, we investigated these violations and found that with the exception of the changable curie bill of lading our failures were directly covered by our Radiation Safety Director and Wyoming Area Manager. We have eliminated the Radiation Safety Director's position and made area manager changes. The corrective actions we have taken are as follows:

Violation 1

- (1) We have enclosed "Attachment A" which is a letter to John Madison stating the Regulation 10 CFR 20.201(b) and how Mr. Madison should have correctly handled the situation.
- (2) "Attachment A" also informs Mr. Madison of our change in management. Michael McIntire (resume enclosed) will be our new manager in Rock Springs, Wyoming. We feel a Division Manager with the experience that John Madison has, should have handled the situation according to regulations.

We have also made Little Rock management changes (Attachment B 10-1-85, which revises Attachment 6(h) of our license application), which eliminates one step in our management control. Considering Mr. Madison's extensive experience, which dates back beyond T.V.A. in Tennessee, plus the fact that he is a rare person that enjoys the Wyoming frontier, we will provide him with additional training material, review his case quarterly, and possibly reinstate him as area manager when we feel we can justify this move to the U.S.N.R.C. Therefore, for these and other reasons mentioned in other violations, we feel new management will correct this problem.

- (3) October 15, 1985 (date of management change).

Violation 2

- (1) We have replaced the faulty safety plug with a new one.
- (2) Radiographic exposure device number 387 was not used after the 4-1-85 Quarterly Maintenance and Inspection (at this point it was 4.1 curies), which was performed by John Madison. It was in storage after this date. (The truck it was stored in was surveyed every day). In "Attachment A" Mr. Madison is reprimanded for not

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United States Nuclear Regulatory Commission  
Attn: R. E. Hall  
10-14-85

correcting this problem during the inspection and explained the importance of maintenance.

(3) June 3, 1985 (date of management change).

Violations 3 through 7

3 (a)(1) New 6717(B) containers were placed in all vehicles.

(2) In "Attachment A" Mr. Madison was reprimanded for not notifying us he needed new 6717(B) storage containers.

(3) October 1, 1985 (date when new storage containers were placed in trucks).

(a)(2)(1) Extra 6717(B) storage containers were made available when more than one source is being transported.

(2) In "Attachment A" Mr. Madison was reprimanded for not notifying us he needed extra 6717(B) storage containers to use when more than one source was being transported.

(3) October 1, 1985 (date when extra storage containers became available for use when more than one source is being transported).

(b)(1) Required markings were placed on all packages.

(2) We have reviewed DOT Regulations with Rocky Mountain Region personnel.

(3) October 1, 1985.

(c)(1) New corrected bills of lading were placed in trucks.

(2) When these new bills of lading were sent, instructions were sent to change information when necessary to correctly describe the hazardous material.

(3) June 3, 1985 (date new bills of lading were placed on trucks).

(d)(1) The 6717(B) storage containers were bolted, wedged, or chained within the darkroom.

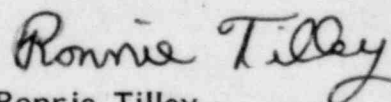
(2) We have reviewed DOT Regulations with Rocky Mountain Region personnel.

(3) June 3, 1985 (date all storage containers were bolted, wedged, or chained within the darkrooms).

Thank you very much for the help Messrs. L. Wilborn, C.A.Hooker, L.T.Ricketson and W.L. Holley gave us in improving our program.

Sincerely,

Southwest X-Ray Corporation



Ronrie Tilley  
Radiation Safety Officer

RT/el  
Enclosure



P.O. Box 5804, Little Rock, Arkansas 72215 / Phone 501 225-1395

October 7, 1985

Mr. John L. Madison  
Southwest X-Ray Corporation  
P. O. Box 24  
Rock Springs, Wyoming 82902

Dear John,

During United States Nuclear Regulatory unannounced radiation safety inspections conducted on May 21, 1985 and August 28, 1985, the following violations were found:

Violation 1

10 CFR 20.20(b) requires the licensee to make such surveys as: (1) may be necessary for the licensee to comply under the circumstances to evaluate the extent of the radiation hazards that may be present. A "survey" is defined in 10 CFR 20.201(a) as an evaluation of the radiation hazards incident to the production use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

Contrary to this requirement, even though you did report the incident of May 3, 1985, a radiographer with your experience should have evaluated the extent of your exposure. If you had evaluated your exposure, you would have found in this case you should not have performed radiography until after your film badge was processed and the exposure evaluated.

Violation 2

During the inspection on May 21, 1985, NRC inspectors found a safety plug for the sealed source connector side of radiographic device no. 387 was only being held on by a piece of tape. This is a violation of 10 CFR 34.28 (review this regulation).

The camera was in storage after your April 3, 1985 Quarterly Maintenance and Inspection. The safety plug should have been replaced during this inspection. Quarterly Maintenance is a very important part of your job. You must correct any problems found during this inspection.

Violation 3

During the inspection on May 21, 1985, NRC inspectors found radiographic devices were being shipped on public highways in storage containers which did not meet the requirements of DOT 40 CFR 173.416 (they were not acceptable 6717B containers).

It is your job as Division Manager to let Little Rock management know if your 6717B storage containers need to be replaced.



John Madison

Page -2-

Violation 4

During the inspection on August 28, 1985, NRC inspectors found two radiographic devices being transported in the same container.

It is your job as Division Manager to let Little Rock management know if you do not have extra 6717(B) containers available for shipping more than one radiographic device.

Violation 5

During the inspection of May 21, 1985, NRC inspectors found that packages used to transport curie quantities of Iridium-192, in special form, did not have the required markings stated in 49 CFR 178.350-3.

It is your job as Division Manager to see that all cameras and storage containers are properly labeled.

Violation 6

During the inspection of May 21, 1985, NRC inspectors found storage containers which were not properly bolted, wedged, or chained so they cannot change position during normal transportation.

It is your job as Area Manager to see that all storage containers are bolted, wedged, or chained during transporting.

Violations 3 through 6 are all D.O.T. Regulation violations which you should have corrected.

We are removing you as Wyoming Area Manager and suspending you without pay for one day.

You will remain in Rock Springs as Operations Manager, and due to your previous training and excellent record up to this point, we will provide training, review your case quarterly, and provide anything that would help to bring your competence level back up to where it was 3 years ago.

In the meantime, as of October 15, 1985, Michael McIntire will assume the duties of Area Manager and your cooperation with Mike will certainly be appreciated and favorably noted on your records.

Sincerely,

*Ronnie Tilley*

Ronnie Tilley  
Radiation Safety Officer

SOUTHWEST X-RAY CORPORATION  
QUALITY AND MANAGEMENT CONTROL

## ATTACHMENT 6 (g)

## INTERNAL INSPECTION SYSTEM OR OTHER MANAGEMENT CONTROL

## 1.0 RECEIVING RADIOACTIVE SOURCES

- 1.1 RADIOACTIVE SOURCES SHALL BE RECEIVED ONLY BY DIVISION MANAGERS, R.S.O. AND ASSISTANT R.S.O.
- 1.2 UPON RECEIPT OF SOURCE FORM G-107(83) "PROCEDURES FOR OPENING PACKAGES", SHALL BE COMPLETED LISTING DATE, LOCATION, SHIPPER, ORIGIN, FREIGHT CO., MR/HR AT SURFACE OF PACKAGE, MR/HR 3' FROM SURFACE OF PACKAGE, 6" FROM CAMERA BODY, SURVEY METER SERIAL NUMBER, DATE OF CALIBRATION, CONTENTS, AND SIGNED BY RECEIVER.
- 1.3 "PROCEDURES FOR OPENING PACKAGES" FORM, SOURCE DECAY AND LEAK TEST FORM, AND SHIPPING FORMS SHALL BE MAILED TO THE R.S.O. FOR FILING IN SOURCE FOLDER, AND IF NEW SOURCE, ADD TO INVENTORY.
- 1.4 COPY OF SOURCE DECAY AND LEAK TEST FORM SHALL REMAIN WITH THE SOURCE WHEN IT IS ASSIGNED TO RADIOGRAPHER.

## 2.0 SHIPPING RADIOACTIVE SOURCES

- 2.1 RADIOACTIVE SOURCES SHALL BE SHIPPED ONLY BY DIVISION MANAGERS, R.S.O. AND ASSISTANT R.S.O.
- 2.2 UPON RECEIPT OF SOURCE FROM RADIOGRAPHER "PROCEDURES FOR SHIPPING PACKAGES" FORM G-106(83) SHALL BE COMPLETED LISTING DATE, LOCATION, SHIPPED TO, FREIGHT COMPANY, MR/HR AT SURFACE OF PACKAGE, MR/HR 3' FROM SURFACE OF PACKAGE, MR/HR 6" FROM CAMERA BODY (NO READING TO EXCEED 50 MR/HR), SURVEY METER SERIAL NUMBER, DATE OF CALIBRATION, CONTENTS, AND SIGNED BY SHIPPER.
- 2.3 SOURCE SHALL BE PLACED IN D.O.T. SHIPPING CONTAINER, SEALED, RADIOACTIVE III LABELS AFFIXED, D.O.T. SHIPPING PAPERS COMPLETED, AOD DELIVERED TO TRANSPORTING COMPANY.
- 2.4 COPIES OF SHIPPING PAPERS, PROCEDURES FOR SHIPPING PACKAGES FORM SHALL BE MAILED TO THE R.S.O. FOR FILING IN THE SOURCE FOLDER.

## 3.0 DISPOSAL FORMS

- 3.1 DISPOSAL OF DEPLETED SOURCES SHALL BE ACCOMPLISHED BY GULF NUCLEAR, INC. OR GAMMA INDUSTRIES.
- 3.2 UPON RECEIPT OF THE DISPOSAL FORM BY THE R.S.O., HE SHALL FILE THE DISPOSAL FORM IN THE SOURCE FOLDER AND DELETE THE SOURCE FROM INVENTORY.

## 4.0 INVENTORY

- 4.1 A CONSTANTLY UPDATED SOURCE INVENTORY SHALL BE MAINTAINED BY THE R.S.O. A FORMAL QUARTERLY INVENTORY SHALL BE PREPARED EACH CALENDAR QUARTER BY THE R.S.O.
- 4.2 FIELD MOVEMENTS OF THE SOURCE BY RADIOGRAPHERS SHALL BE MONITORED BY DIVISION MANAGERS AND REPORTED TO THE R.S.O. BY TELEPHONE AND MONTHLY INVENTORY.

## ATTACHMENT 6 (g) CON'T

### 5.0 SURVEY METER CALIBRATION

- 5.1 INSTRUMENT CALIBRATION SHALL BE CARRIED OUT ON 3 MONTH INTERVALS BY THE R.S.O. IN CONJUNCTION WITH THE DIVISION MANAGERS. DIVISION MANAGERS SHALL EXCHANGE INSTRUMENTS WITH THE RADIOGRAPHERS AND IN TURN TRANSFER THEM TO GULF NUCLEAR, INC., GAMMA INDUSTRIES, INC. OR THE R.S.O. AS APPROPRIATE FOR RE-CALIBRATION.
- 5.2 A CONSTANTLY UPDATED SURVEY METER INVENTORY SHALL BE MAINTAINED BY THE R.S.O.
- 5.3 SURVEY METER CALIBRATION CERTIFICATES SHALL BE FILED BY THE R.S.O.

### 6.0 LEAK TESTS

- 6.1 LEAK TESTS USING GULF NUCLEAR MODEL LTK-1 OR GAMMA INDUSTRIES KOWIPE LEAK TEST KITS SHALL BE CONDUCTED AT 6 MONTH INTERVALS ONLY BY THE RADIATION SAFETY OFFICER, ASSISTANT RADIATION SAFETY OFFICER OR DIVISION MANAGERS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- 6.2 LEAK TESTS SHALL BE MAILED TO GULF NUCLEAR, INC. OR GAMMA INDUSTRIES, INC. BY THE R.S.O., AND HE SHALL BE RESPONSIBLE FOR THIS PROGRAM INCLUDING IMMEDIATE NOTIFICATION OF ANY LEAKAGE AND WITHDRAWAL FROM SERVICE.
- 6.3 LEAK TEST RESULTS SHALL BE FILED IN SOURCE FOLDER AND A FIELD COPY SENT TO THE RADIOGRAPHER BY THE R.S.O.

### 7.0 FILM BADGE AND DOSIMETER RECORDS

- 7.1 FILM BADGE AND FILM BADGE RECORDS INCLUDING RECEIVING AND MAILING QUARTERLY TOTALS, ANNUAL REPORTS, TERMINATION REPORTS, REQUESTS FOR EXPOSURE HISTORY BY JOB APPLICANTS, REQUESTS FOR EXPOSURE HISTORY TO PROSPECTIVE EMPLOYERS, NOTIFICATION TO EMPLOYEES, U.S.N.R.C. OR STATE BOARD OF HEALTH SHALL BE THE RESPONSIBILITY OF THE RADIATION SAFETY OFFICER.
- 7.2 ANNUAL DOSIMETER CALIBRATION, DOSIMETER INVENTORY, DOSIMETER RECORDS, NOTIFICATION TO EMPLOYEES OF DISTURBING TRENDS, SHALL BE THE RESPONSIBILITY OF THE RADIATION SAFETY OFFICER.

### 8.0 UTILIZATION LOG

- 8.1 THE DAILY RADIATION REPORTS G-103(83) CONTAINING CAMERA SURVEYS, STORAGE SURVEYS, DOSIMETER RECORD, CAMERA DAILY INSPECTION, RADIATION SURVEY, SURVEY METER CALIBRATION AND LEAK TEST DATES AND DAILY JOB INFORMATION SHALL BE RECEIVED, CHECKED, ANY INFRACTIONS NOTED AND MAILED TO RADIOGRAPHERS, AND FILED IN THE UTILIZATION LOG BY THE RADIATION SAFETY OFFICER.

### 9.0 QUARTERLY EXPOSURE DEVICE MAINTENANCE

- 9.1 QUARTERLY INSPECTION AND MAINTENANCE OF CAMERAS SHALL BE CARRIED OUT BY RADIATION SAFETY OFFICER, ASSISTANT RADIATION SAFETY OFFICER, OR DIVISION MANAGER.



## ATTACHMENT 6 (g) CON'T

- 9.2 ALL MAINTENANCE POINTS SHALL BE COVERED (USING FORM G-104[83]), NECESSARY REPAIRS MADE OF CAMERA REMOVED FROM SERVICE UNTIL INFRACTIONS CAN BE CORRECTED.
- 9.3 QUARTERLY MAINTENANCE FORMS SHALL BE RECEIVED BY THE RADIATION SAFETY OFFICER, REVIEWED, RECORDED AND FILED IN THE APPROPRIATE SOURCE FOLDER.

### 10.0 QUARTERLY RADIOGRAPHER CONTINUED EDUCATION (OPERATIONS)

- 10.1 RADIOGRAPHER CONTINUED EDUCATION PROGRAMS SHALL BE CARRIED OUT BY RADIATION SAFETY OFFICER, ASSISTANT RADIATION SAFETY OFFICER , OR DIVISION MANAGERS.
- 10.2 UNANNOUNCED FIELD CHECKS (FORM G-105[83]) SHALL BE USED AS A GUIDE TO CONTINUED RADIOGRAPHER COMPLIANCE. FORMS AND TESTS SHALL BE FORWARDED TO THE RADIATION SAFETY OFFICER FOR EVALUATION, COMMENTS AND FILING IN THE RADIOGRAPHERS PERSONNEL FILE.
- 10.3 VISITS BOTH ANNOUNCED AND UNANNOUNCED SHALL BE MADE TO RADIOGRAPHERS BY DIVISION MANAGERS DURING THE CALENDAR QUARTER. RESULTS OF THESE VISITS SHALL BE SUPPLIED TO THE RADIATION SAFETY OFFICER.

### 11.0 TRAINING PROGRAM

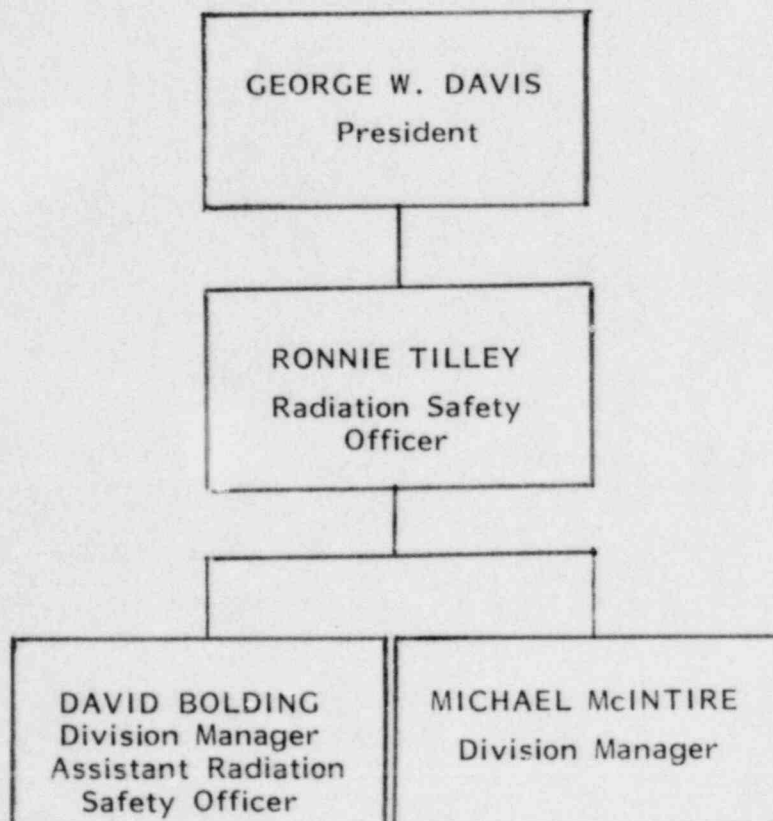
- 11.1 THE RADIOGRAPHER AND ASSISTANT RADIOGRAPHER AND PREVIOUSLY TRAINED RADIOGRAPHERS TRAINING PROGRAM SHALL BE CARRIED OUT BY THE RADIATION SAFETY OFFICER. INSTRUCTOR SHALL BE THE RADIATION SAFETY OFFICER.
- 11.2 TRAINING COMPLETION CERTIFICATION SHALL BE THE RESPONSIBILITY OF THE RADIATION SAFETY OFFICER.
- 11.3 COMPLETED TRAINING PROGRAM TESTS SHALL BE FILED IN THE EMPLOYEES PERSONNEL FOLDER BY THE RADIATION SAFETY OFFICER.

### 12.0 NOTIFICATION TO U.S.N.R.C. OR STATES

- 12.1 NOTIFICATION OF PENDING FIELD JOBS, EMERGENCY SITUATIONS OR OTHER MATTERS SHALL BE THE RESPONSIBILITY OF THE RADIATION SAFETY OFFICER.
- 12.2 THE RADIATION SAFETY OFFICER SHALL INVESTIGATE THE CAUSE OF ANY INCIDENTS AND DETERMINE PROVENTIVE ACTION.
- 12.3 THE RADIATION SAFETY OFFICER SHALL MAINTAIN A FILE OF U.S.N.R.C. AND STATE BOARD OF HEALTH EMERGENCY TELEPHONE NUMBERS.

## ATTACHMENT 6 (h) OVERALL ORGANIZATIONAL STRUCTURE

- 1.0 AUTHORITY (RESUMES FOR MANAGEMENT PERSONNEL INCLUDED IN THIS SECTION).
  - 1.1 OVERALL CORPORATE RESPONSIBILITY SHALL REST WITH GEORGE W. DAVIS, PRESIDENT.
  - 1.2 THE RESPONSIBILITY FOR THE OVERALL RADIATION PROTECTION PROGRAM SHALL REST WITH THE RADIATION SAFETY OFFICER, RONNIE TILLEY. HIS DUTIES INCLUDE OVERALL SUPERVISION OF THE PROGRAM, DELEGATION OF DUTIES, AND ACTING AS INSTRUCTOR FOR THE TRAINING PROGRAM.
  - 1.3 THE RADIATION SAFETY OFFICER, RONNIE TILLEY, HAS THE FINAL RESPONSIBILITY FOR RECEIVING, SHIPPING DISPOSAL, INVENTORY, SURVEY METER CALIBRATION, LEAK TESTS, FILM BADGES, DOSIMETERS, UTILIZATION LOG, MAINTENANCE, TRAINING (ALL PHASES, INCLUDING INSTRUCTOR AND NOTIFICATION).
  - 1.4 RONNIE TILLEY IN TURN WILL ASSIGN CERTAIN FIELD MANAGEMENT OPERATIONS TO DIVISION MANAGERS, DAVID BOLDING, AND MICHAEL MCINTIRE. THESE DUTIES INCLUDE MOST CONTACT WITH RADIOGRAPHERS AND IN MANY CASES SHIPPING AND RECEIVING OF SOURCES, INSTRUMENT CALIBRATION, FILM BADGES, DOSIMETERS, REPORTS, LEAK TESTS, QUARTERLY MAINTENANCE AND QUARTERLY RADIOGRAPHER OPERATIONS, ASSISTING WITH TRAINING IMPLEMENTATION, AND OTHER FIELD DUTIES: REPORTING DIRECTLY TO RONNIE TILLEY AS DESCRIBED IN 6(g).





SOUTHWEST X-RAY CORPORATION

ATTACHMENT 6(h) CON'T

RONNIE TILLEY - RADIATION SAFETY OFFICER

DATE OF BIRTH: November 8, 1950

SS# 431-98-2528

EDUCATION:

Morrilton, Arkansas High School 1968

B.S. Business Administration, Arkansas Polytechnic College, Russellville, Arkansas 1973. June 1975, 40 hr. Radiation Safety School, Nuclear Environmental Engineering Inc., Houston, Texas.

RADIOGRAPHY EXPERIENCE:

Employed in 1974 by Arkansas Testing Laboratory as assistant radiographer. Passed ASNT TC 1A test for Level II Radiographer in March, 1975. Level II Radiographer for Southwest X-Ray Corporation since August 3, 1979.

DAVID BOLDING - ASSISTANT RADIATION SAFETY OFFICER  
DIVISION MANAGER

DATE OF BIRTH: September 4, 1954

SS# 431-06-6728

EDUCATION:

High School, Judsonia, Arkansas 1973

February 1976, 40 hr. Radiation Safety School Nuclear Environmental Engineering, Inc., Houston, Texas.

RADIOGRAPHY EXPERIENCE:

Experienced as Level II radiographer for Davis X-Ray and Arkansas Testing Laboratory, Little Rock, Arkansas in 1975. February 1976, Level II, Southwest X-Ray Corp. June 1978, Division Manager and Assistant Radiation Safety Officer, Southwest X-Ray Corporation.

MICHAEL R. McINTIRE - DIVISION MANAGER

DATE OF BIRTH: May 22, 1956

SS# 429-13-6249

EDUCATION:

Graduated High School, Riverdale, Port Bryan, Illinois. Attended Blackhawk Junior College, Moline, Illinois 1977. February 1976 completed 40 hr. Radiation Safety and Industrial Radiography School given by Nuclear Environmental Engineers, Inc., Houston, Texas. November 1981 passed "Previously Trained Radiographers Test (SWXR3)". Attended ASNT Level III Radiographer Refresher Course 20 hours - October 1 - 4, 1985.

RADIOGRAPHY EXPERIENCE:

June 1975 - February 1976 Radiographer's assistant (8 months total), Arkansas Testing Laboratory, Little Rock, Arkansas. February 1976 - June 1976 Radiographer, Arkansas Testing Lab. June 1976 - September 1976; May 1978 - July 1978; October 1981 - September 1982; and June 1983 to present, Radiographer, Southwest X-Ray Corporation.