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Materials Testing Consultants, INC.

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12 October 1989

United States Nuclear Regulatory Commission
Region III
799 Rosevelt Road
Glen Ellyn, Illinois 60137

Attention: Bruce S. Mallett, Chief
Nuclear Materials Safety Branch

Subject: Written Response of Special Safety Inspection Conducted by Messrs. B.A. Parker and S.J. Mulay on June 8, 1989

Reference: License No. 21-15281-02
Inspection Report No. 030-13918/89001 (DRSS)

Gentlemen:

Pursuant to the provisions of 10 CFR 2.201 and in response to violations of NRC requirements per the above referenced inspection report, the following is our written response to deficiencies noted during the inspection conducted on June 8, 1989.

This response will address the violations item by item in the order presented in the "Notice of Violation", dated July 13, 1989.

1. Failure to maintain daily use log.

As of August 28, 1989, five log books were purchased and placed in service for each of our Troxler Series 3400 moisture/density gauges. All authorized technicians are required to enter in the log book the date, the respective

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technician and the project site (location) where the gauge has been used. Although occasions have occurred when technicians have inadvertently not entered the required entries, reminders by the radiation protection officer (RPO) have minimized these occurrences. To avoid further violations, the log books are inspected by the RPO and technicians who continue to not make the required entries will be verbally reprimanded. Additional action may be required for periodic violators and such actions will be determined by the RPO if required. Full compliance regarding this violation has been achieved on August 28, 1989.

2. Violation of License Condition No. 17 regarding the Radiation Protection Officer.

As indicated in the "Inspection Summary", item number 4, Mr. Peter D. Gausewitz is qualified as an authorized user and as RPO. Materials Testing Consultants, Inc. current Material License (No. 21-15281-02) is set to expire on 10-31-89. Our application for license renewal has been completed and was mailed on 9-29-89. In the renewal we have changed the title of the individual responsible for a radiation safety program from Radiation Protection Officer (RPO) to Radiation Safety Officer (RSO), and this individual will be Peter D. Gausewitz. Upon acceptance of our renewal application, full compliance regarding this violation will be accomplished. To avoid further violations, Mr. Gausewitz will, in the event of leaving employment with Materials Testing Consultants, Inc. notify the president that a new RSO must be assigned and our materials license amended to reflect the change.

3. Records of leak tests were not maintained for inspection by the Commission.

Records of two leak test results could not be found in our files for Troxler Series 3400 moisture/density gauges serial numbers 5826 and 5699 for January, 1988 and April, 1987 respectively. Kathy Mahoney with Troxler Electronic Laboratories, Inc. in Elgin, Illinois was contacted on Oct. 11, 1989. Troxler does have on file records of the above mentioned leak tests and will mail copies to us on Oct. 12, 1989. To avoid further violations, we have taken two steps. One is that when the next leak test is due for any of our five Troxler gauges, all will be leak tested. This system will reduce the possibility of missing a leak test. Second is that we have altered our filing system. A file drawer has been designated for all nuclear records in order to consolidate the required paper work as well as other

pertinent information. Full compliance regarding this violation will be accomplished upon receipt of copies of the missing leak tests which should occur by October 16, 1989.

If you have any questions or if additional information is required, please contact us.

Sincerely,

MATERIALS TESTING CONSULTANTS, INC.

Peter D. Gausewitz
Radiation Safety Officer

PDG/bv
Enclosures:
1. Copy of Radiation Safety Training Program Certificate
2. Copy of Radiation Safety Officer Duties & Responsibilities
3. Copy of Peter D. Gausewitz Resume

cc: (also attachments): MTC Nuclear Materials File

MATERIALS TESTING CONSULTANTS, INC.

RADIATION SAFETY POLICY AND EMERGENCY PROCEDURES

I. NRC Athorization and Regulations

A. Materials Testing Consultants, Inc. is licensed by the United States Nuclear Regulatory Commission to use the radioactive sources Cesium-137 and Americium-241-Beryllium in the Troxler Series 3400 moisture/density gauge(s) for testing moisture and density of construction materials. As such we are governed by the following federal regulations: Title 10, Part 19, "Notices, Instructions and Reports to Workers; Inspections", Part 20, "Standards for Protection Against Radiation", Part 30, "Rules of General Applicability to Domestic Licensing of By-Product Material," and Part 71, "Packaging and Transportation of Radioactive Material".

B. Employees using nuclear gauges should be familiar with these regulations. Copies of the regulations will be kept in an available area for employee reference.

II. Policy

A. Nuclear gauges will be used safely and in a manner consistant with our NRC license and applicable regulations.

B. Personnel involved in the use of the nuclear gauge(s) will be issued a copy of this policy. It is their responsibility to read and know the policies and procedures contained in this policy and to keep their copy for reference.

C. This policy will be reviewed and updated as needed due to changes in personnel, procedures, regulations or equipment.

III. Authorized Users of Nuclear Gauges

A. Nuclear gauge(s) will be used only by authorized personnel. To be designated as an authorized person one must:

1. Attend the manufacturers training program for gauge users and document the satifactory completion of the course.

2. Demonstrate a working knowledge of the use of nuclear gauges in the field.

3. Receive approval of the Radiation Safety Officer.

B. Authorized users will wear a film badge when working with nuclear gauges.

C. MTC personnel will not remove sealed source of radiation from gauges.

IV. Transportation of Nuclear Gauges

A. Transportation of nuclear gauges will be in accordance with DOT regulations and authorized personnel will be familiar with these regulations.

B. Before transport, nuclear guages should be checked to ensure they are:

1. In good condition
2. Packaged corectly
3. Accompanied by the appropriate shipping papers.

C. The nuclear gauge shall be transported securely in the trunk of a passenger auto or securely held in place in the transport box in the bed of a pick-up truck.

D. The nuclear guages shall not be transported in the passenger compartment of a vehicle.

V. Gauge Security at Jobsites

A. Authorized field personnel shall be in possession of or in control of the nuclear guage at all times on the jobsite.

B. Unauthorized personnel on jobsites may only be observers of demonstration uses of the nuclear guage. Only authorized personnel shall operate the nuclear guage on the jobsite.

C. Between uses on a jobsite, when not in possession of the nuclear guage, the authorized personnel shall keep the gauge in the secured area of his vehicle or a secured temporary storage area approved by the Radiation Safety Officer.

D. Informing the project manager, job superintendent or foreman at the jobsite that a nuclear gauge is being used on the jobsite as a courtesy is encouraged.

VI. Designated Storage Areas

A. When nuclear gauges are present, designated storage areas shall be locked and accessable only to authorized users.

B. Designated storage areas will be established by the Radiation Safety Officer.

C. Temporary overnight storage of nuclear gauges in vehicles must be approved by the Radiation Safety Officer. Vehicles used as temporary overnight storage must not be used by individuals who are not authorized users.

VII. Emergency Procedures

A. In the event of an accident causing damage to the nuclear gauge, the primary goal is to minimize the radioactive exposure of individuals and widespread contamination of property. The authorized user shall:

1. Maintain control of the gauge and surrounding area.

2. Enlist the help of others at scene to call the Radiation Safety Officer.

3. Take action to minimize exposure to individuals and contain contamination to the best of his ability.

4. Notify Civil Authorities if necessary.

B. If the nuclear gauge is lost or stolen, immediately notify the Radiation Safety Officer.

VIII. Emergency Contact Numbers

A. Radiation Safety Officer:

Peter Gausewitz 616-456-5469 MTC office
800-632-3640 MTC office
616-532-2130 home

B. Other sources of help.

1. NRC Region III Office
Glen Ellyn, Illinois
312-790-5500 during business hours

2. NRC Operations Center
Bethesda, Maryland
301-951-0550 available 24 hours/day

RADIATION SAFETY OFFICER

DUTIES AND RESPONSIBILITIES

1. Federal Regulations, Parts 19, 20, 30 and 71 - be familiar with their text and maintain up to date copies for employees reference.

2. Authorized Personnel - Determine who is authorized to use nuclear gauges; ascertain that only authorized individuals use the meters in the field; provide authoriized individuals with copies of MTC Radiation Safety Policy; assure that authorized individuals using nuclear gauges have and wear personnel monitoring equipment.

3. Gauge Security - maintain a secured location for storage when gauges are not in use; provide procedures for security during transit and on location.

4. Emergency Procedures - establish emergency procedures and be the prime contact between field personnel and civil authorities should an accident, loss or theft of a gauge occur.

5. Maintainance - perform and/or supervise required leak tests with a Troxler 3880 leak test kit; arrange for required maintainance and/or repairs with manufacturer.

6. Records - maintain proper records required for license compliance.

7. Transfer or disposal - ensure that unwanted nuclear sources are transferred or disposed of in accordance with state and federal regulations and guidelines.

MTC Radiation Policy - 9/89

RADIATION SAFETY TRAINING PROGRAM FOR DENSITY GAUGES

THIS IS TO CERTIFY THAT

Peter D. Gausewitz

OF

Professional Service Industries, Inc.

Has Successfully Completed the Radiation Safety Training Program for Nuclear Density Gauges.

Subjects included in the course were as follows:

Gauge Operation

1. *Instrument Theory*
2. *Operating Procedures*
3. *Maintenance*
4. *Field Use*

Radiation Safety

1. *Principles of Radiation Safety*
2. *Shipping and Storage*
3. *Radiation dosage calculations*
4. *Radiation detection and measurement*
5. *Biological effects*
6. *Emergency Procedures*

Corporate Radiation Safety Officer

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