

"Paving the smoother  
roads of tomorrow"



ROAD CONSTRUCTION  
P.O. Box 4688 • Lancaster, PA 17604-4688

Asphalt Paving  
Road Construction  
Bridge Construction  
Traffic Signals  
Asphalt Materials



October 14, 2005

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

REPLY TO A NOTICE OF VIOLATION

SUBJECT: Inspection 03035977/2005001, McMinn's Asphalt Company, Inc.,  
Manheim, Pennsylvania and Lancaster, Pennsylvania

A. ...the licensee has been storing licensed material at their facilities  
located at the Lancaster, Pennsylvania location. The licensee does not  
include this area as an authorized storage location.

Reply: One of our portable gauges was relocated from our Manheim,  
Pennsylvania location to the Lancaster, Pennsylvania location in March,  
2005 on what was seen as a seasonal basis (March through October).  
McMinn's neglected to make the move of this gauge known to the NRC.  
Since your inspection we have determined that the Lancaster,  
Pennsylvania location is a more secure location for all of our gauges  
(two independent physical controls) to be secured on a permanent basis  
and an application has been made to establish the Lancaster location as  
McMinn's only storage facility.

B. ...portable gauges stored at the Manheim, Pennsylvania location did not  
have two independent physical controls that formed tangible barriers to  
secure portable gauges from unauthorized removal.

Reply: McMinn's was not cognizant of the fact that the method of storage it was  
using did not meet the requirements of the standard. The move of  
gauges from the Manheim, Pennsylvania location to the Lancaster,  
Pennsylvania facility brings McMinn's into compliance with this standard.  
Retraining of employees has also taken place to increase awareness  
and ensure compliance with this regulation in the future.

IE07

PLANT LOCATIONS

Manheim Pike, Route 72  
(North of East Petersburg)  
Phone: (717) 569-2623  
Fax: (717) 569-3617

Mason-Dixon Plant  
Fulton Township  
Phone: (717) 548-2181

<sup>1</sup>  
Rheems Plant  
Mount Joy Township  
Phone: (717) 367-8289

Lancaster Plant  
1061 Manheim Pike  
Phone: (717) 397-0391

Paradise Plant  
McIlvaine Road  
Phone: (717) 442-4000



ROAD CONSTRUCTION  
*Lancaster, Pa.*

C. ...not all portable nuclear gauges had a lock or outer locked container designed to prevent unauthorized or accidental removal from its shielded position.

Reply: Retraining of employees has taken place to assure compliance with this regulation since it had been overlooked or ignored. Also, periodic, unannounced inspections will be increased to insure adherence with this requirement.

D. 10 CFR 20.1101(c) requires that a licensee periodically (at least annually) review the radiation protection program content and implementation.

Reply: McMinn's neglected to share with Mr. Rolph of the Nuclear Regulatory Commission during his inspection that McMinn's Nuclear Gauge Policy was rewritten in December, 2004. Out of necessity the program was reviewed during the process of writing the new program. A copy of the Nuclear Gauge Policy is attached.

Please call me at (717) 391-8120 or write to me at McMinn's Asphalt Co., Inc., P.O. Box 4688, Lancaster, PA 17601.

Very truly yours,

A handwritten signature in black ink, appearing to read 'James Lilley', is written over a horizontal line.

James Lilley  
Radiation Safety Officer

copy: Nuclear Regulatory Commission  
Region I  
Attention: Regional Administrator  
475 Allendale Road  
King of Prussia, PA 19406-1415

## NOTICE OF VIOLATION

McMinn's Asphalt Company, Inc.  
Lancaster, PA

Docket No. 03035977  
License No. 37-19659-02

During an NRC inspection conducted on September 9, 2005, four violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. Condition 10 of License No. 37-19659-02 authorizes in part that the licensee use and store licensed material at their facilities located at 2743 Lancaster Road, Manheim, Pennsylvania.

Contrary to the above, since April of 2005, the licensee has been storing licensed material at their facilities located at 1061 Manheim Pike, Lancaster, Pennsylvania. The license does not include this area as an authorized storage location.

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

- B. 10 CFR 30.34(i) requires that each portable gauge licensee shall use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee.

Contrary to the above, as of July 11, 2005 portable gauges stored at the 2743 Lancaster Road, Manheim, Pennsylvania location did not have two independent physical controls that formed tangible barriers to secure portable gauges from unauthorized removal. Specifically, the portable gauge stored at this location on September 9, 2005 had only one physical control, a lock on the wooden shed door, that formed a tangible barrier to prevent unauthorized removal.

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

- C. Condition 17 of License No. 37-19659-02 requires that each portable nuclear gauge have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport or storage, or when not under the direct surveillance of an authorized user.

Contrary to the above, on September 9, 2005, not all portable nuclear gauges had a lock or outer locked container designed to prevent unauthorized or accidental removal of the source from its shielded position. Specifically, the portable nuclear gauge stored at the 2743 Lancaster Road, Manheim, Pennsylvania location, was in an unlocked outer container and the lock on the gauge handle was not engaged.

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

- D. 10 CFR 20.1101(c) requires that a licensee periodically (at least annually) review the radiation protection program content and implementation.

Contrary to the above, since 1998, the licensee has not performed an annual review of the radiation protection program.

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

Pursuant to the provisions of 10 CFR 2.201, McMinn's Asphalt Company, Inc. 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 I, 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. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to 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.

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, any response which contests an enforcement action shall be submitted under oath or affirmation.

Your response will be placed in the NRC Public Document Room (PDR) and on the NRC Web site. To the extent possible, it should, therefore, not include any personal privacy, proprietary, or safeguards information so that it can be made publically available without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated This 6<sup>th</sup> day of October 2005

**A. Radiation Safety Officer**

James Lilley has been designated as the Radiation Safety Officer of McMinn's Asphalt Co., Inc. and will assume the duties and responsibilities that include but are not limited to:

- (1.) Ensuring that all terms and conditions of the license are met and that the information contained in the license is current.
- (2.) Ensuring that the nuclear gauge has been leak tested in the required timely manner and that the leak test is performed in the manner prescribed by the nuclear gauge manufacturer.
- (3.) Assuring the safe usage of radioactive materials.
- (4.) Ensuring that only authorized personnel use the nuclear gauges(s) and that all users wear personal monitoring equipment when appropriate.
- (5.) Assuring that all personnel using a nuclear gauge have had proper training and are certified.
- (6.) Maintaining the records as required by the license and the regulations (that is, personnel exposure records, leak test records, training certificates for all users, and an inventory).
- (7.) Assuring compliance with all regulations concerning radioactive materials.
- (8.) Ensuring that the equipment is properly secured against unauthorized removal at all times when not in use.
- (9.) Serving as a point of contact and assisting and notifying the proper authorities in case of emergency.
- (10.) Assuring that all aspects of the Radiation Safety Manual are being followed.

**B. Transportation Procedures**

- (1.) All possible means shall be provided to ensure that the nuclear equipment is fully secured in the transport vehicle and equipment is away from the passenger compartment. When transporting in an enclosed vehicle (car or van), the vehicle will be locked. When transporting in an open bed vehicle, securely fasten and lock the nuclear gauge to the truck bed.

- (2.) The nuclear gauge will be transported in an approved transportation case. The U.S. DOT requires that the nuclear gauge be transported in a properly labeled case and that the case be locked or sealed.
- (3.) At all times during transport, the transporter will have a properly completed bill of lading and emergency procedures for each nuclear gauge.

### **C. Operating Procedures**

- (1.) When the nuclear gauge is in the field, the authorized user must maintain control over the gauge at all times. The gauge must never be left unattended.
- (2.) When not making measurements, the gauge should be placed in the transportation case and returned to its permanent storage area as soon as possible. Only use the nuclear gauge for its intended purpose. By doing so, you will maintain exposure to As Low As Reasonable Achievable (ALARA).
- (3.) When using the nuclear gauge, the user will wear the personal monitoring device that has been assigned to them. When not using the nuclear gauge, the monitoring equipment will be stored in the designated radiation free area.

### **D. Maintenance and Leak Testing**

- (1.) Periodic maintenance includes cleaning the nuclear gauge. During any maintenance a personnel-monitoring device will be worn.
- (2.) Unless otherwise stated on our license, maintenance will not be performed that requires the removal of the radioactive source from the nuclear gauge. For this type of maintenance, the nuclear gauge will be shipped to a properly licensed individual or company, like the nuclear gauge manufacturer.
- (3.) The leak test will be performed using the Troxler Model 3880 Leak Test Kit. The leak test will be performed according to manufacturer's instructions. When performing leak test personal monitoring equipment will be worn. Nuclear gauges will be tested at intervals not to exceed six months, unless otherwise specified by our license.

### **E. Emergency Procedures**

In the event of physical damage to a nuclear gauge, the following will be performed:

- (1.) Location of the gauge and/or source.
- (2.) An area around the nuclear gauge (a radius of fifteen feet) will immediately be cordoned off. The area will not be left unattended.
- (3.) All unauthorized personnel will be kept away from the gauge.
- (4.) When a vehicle is involved it will be stopped and will not be allowed to leave the scene until the extent of contamination, if any, can be established.
- (5.) A visual inspection of the nuclear gauge will be performed to determine if the source housing or shielding have been damaged.
- (6.) At the earliest possible time (when the situation is under control) the RSO must be contacted and advised of current conditions. The RSO will be the contact with the regulatory agencies.

The RSO will notify the NRC; the local authorities, if necessary for public safety; and other, as deemed necessary to assure no unauthorized person or persons are in danger of radiation exposure. The U.S. DOT will be notified, when required, when accidents occur during transport.

- (7.) In the event a nuclear gauge is lost or stolen the RSO will be immediately notified.

## **F. Radiation Safety Manual**

### **(1.) Management**

Management requires adherence to the regulations set forth in 10 CFR 20. The RSO has the authority to carry out those duties required by 10 CFR 20 and will report directly to the President of McMinn's Asphalt Co., Inc.

Furthermore, the management of McMinn's Asphalt Co., Inc. is committed to the ALARA philosophy of maintaining occupational and public radiation doses As Low As Reasonably Achievable.

- (a.) It will be a management priority that all personnel using nuclear gauges be made aware of our commitment to the ALARA philosophy and that they be instructed in the procedures to be used to keep their exposures as low as possible.

- (b.) Management has delegated authority to our RSO to ensure adherence to ALARA principles. Management will support the RSO in instances where this authority must be asserted.
- (c.) Management will make all reasonable modifications to procedures, equipment and facilities to reduce exposures. We will be prepared to describe the reasons for not implementing modifications that have been recommended.

## **(2.) Radiation Safety Officer**

The RSO will assure the following:

- (a.) That all terms and conditions of the license are met and that the information contained in the license is current.
- (b.) That the nuclear gauge has been leak tested in the required timely manner and that the leak test is performed in the manner prescribed by the nuclear gauge manufacturer.
- (c.) The safe usage of radioactive materials.
- (d.) That only authorized personnel use the nuclear gauge(s) and that all users wear personnel monitoring equipment when appropriate.
- (e.) That all personnel using a nuclear gauge have had proper training and are certified.
- (f.) That records are maintained as required by the license and the regulations (i.e.; personnel exposure records, leak test records, training certificates for all users, and an inventory).
- (g.) Compliance with all regulations concerning radioactive materials.
- (h.) That the equipment is properly secured against unauthorized removal at all times when not in use.
- (i.) That all aspects of the radiation safety manual are being followed.

The RSO will serve as a point of contact and assisting and notifying the proper authorities in case of an emergency.

## **(3.) Personnel Monitoring**

All occupationally exposed employees will wear whole body film or TLD badges. Personnel monitoring devices should be worn on the upper

torso, somewhere between the beltline and the top of the head; ideally, the badge should be worn on the chest area.

#### **(4.) Storage of Radioactive Material**

Storage areas will be carefully selected to ensure that workers or occupants of any building or adjacent buildings will not be placed in an appreciable radiation field. The nuclear gauge will not be stored closer than fifteen feet to a permanent workstation, such as a desk or worktable. Workers may be permitted closer to the storage area provided they do not occupy a permanent workstation and the radiation level does not exceed 2 mrem per hour.

The storage area will have only one door and no windows; the door will have a lock. If storage cabinets are used as the storage area the cabinet will be attached to the structure of the facility in a secure and permanent manner.

Our current method of storage is in a dedicated building, equipped with a lock and containing no windows, located 15 feet from the northeast corner of our corporate offices at 2743 Lancaster Road, Manheim, PA 17545.

It is our policy to store the gauges in its transportation case.

#### **(5.) Posting**

A permanent sign attached to the access door identifies the storage area. The sign is yellow in color and bears the official nuclear symbol and the words, "CAUTION – RADIOACTIVE MATERIAL."

Required regulatory postings such as "Notice to Employees" are posted on employee bulletin boards.

Periodic inspections will be undertaken to ensure that all postings are present.

#### **(6.) Use of Radioactive Material**

Only trained and certified personnel are permitted to use nuclear gauges. Personnel that have not completed training will not be allowed to use a nuclear gauge.

Specific guidelines for safe operation of nuclear gauges include:

(a.) Keep the source in a "safe" or stored position when not in use.

New page

torso, somewhere between the beltline and the top of the head; ideally, the badge should be worn on the chest area.

#### **(4.) Storage of Radioactive Material**

Storage areas will be carefully selected to ensure that workers or occupants of any building or adjacent buildings will not be placed in an appreciable radiation field. The nuclear gauge will not be stored closer than fifteen feet to a permanent workstation, such as a desk or worktable. Workers may be permitted closer to the storage area provided they do not occupy a permanent workstation and the radiation level does not exceed 2 mrem per hour.

The storage area will have only one door and no windows; the door will have a lock. If storage cabinets are used as the storage area the cabinet will be attached to the structure of the facility in a secure and permanent manner.

Our current method of storage is in a secured building at 1061 Manheim Pike, Lancaster, PA 17601. The nuclear gauge is then stored in a locked room within that building. No individual occupies any office space within 15 feet of the locked storage room.

It is our policy to store the gauges in its transportation case.

#### **(5.) Posting**

A permanent sign attached to the access door identifies the storage area. The sign is yellow in color and bears the official nuclear symbol and the words, "CAUTION – RADIOACTIVE MATERIAL."

Required regulatory postings such as "Notice to Employees" are posted on employee bulletin boards.

Periodic inspections will be undertaken to ensure that all postings are present.

#### **(6.) Use of Radioactive Material**

Only trained and certified personnel are permitted to use nuclear gauges. Personnel that have not completed training will not be allowed to use a nuclear gauge.

Specific guidelines for safe operation of nuclear gauges include:

(a.) Keep the source in a "safe" or stored position when not in use.

- (b.) Wear personal monitoring equipment (film badge or TLD) as required.
- (c.) Always employ the ALARA principle when using the nuclear gauge.
- (d.) All unauthorized personnel should be kept out of the operating area.
- (e.) Keep the nuclear gauge locked when not in use.
- (f.) Never leave the nuclear gauge unattended, except when properly stored.
- (g.) Return the nuclear gauge to its proper storage location when not in use.

#### **(7.) Transportation Procedures**

Transportation security is a major consideration. The nuclear gauge handle shall be locked. The nuclear gauge will be placed in the approved transport case, and the case will be secured to the vehicle. The transport case will be locked so that the nuclear gauge cannot be removed or tampered with by unauthorized personnel. The nuclear gauge shall be placed in the cargo portion of the vehicle and will be secured in place by an attachment device.

The transport case will bear labeling marked with DOT 7A, Type A information as required, and Radioactive labels describing the radioactive materials contained in the nuclear gauge.

Placards are not required on vehicles when transporting our nuclear gauges.

#### **(8.) Records Management**

Records that we will maintain are as follows:

- (a.) An inventory that accounts for all sealed sources received and possessed under our license at intervals of six months.
- (b.) Leak test results on each source in our possession. The tests will be performed at intervals not to exceed six months, unless otherwise specified by our license or applicable regulations. The company that provides this service will furnish to us results of the examinations.

- (c.) Reports from the personal monitoring equipment service company.
- (d.) All records pertaining to the receipt or transfer of radioactive materials. This will include the sale and/or transfer to another location. No material will be delivered to an unauthorized or unlicensed agency.
- (e.) All training records pertaining to gauge users.

The above records will be maintained in the office of the RSO.

#### **(9.) Inspection of Equipment**

The provider of our gauges, Troxler Electronic Laboratories, Inc., recommends a preventative maintenance program for each nuclear gauge that McMinn's will follow. A checklist is attached that outlines the program.





SUMMARY OF RECORD KEEPING REQUIREMENTS  
FOR PORTABLE GAUGE LICENSEES

Reference	Record Keeping Requirement	How long to keep?
10 CFR 20.2102(a)(1)	Provisions of the radiation protection program (i.e. operating and emergency procedures)	Until termination of license
10 CFR 20.2102(a)(2)	Audits and reviews of the radiation safety program and contents.	3 years
10 CFR 20.2103(b)	Records of dose assessment (evaluation for no dosimetry)	Until termination of license
10 CFR 20.2106(a)	Records of individual monitoring results (i.e. dosimetry vendors reports) and/or evaluations of exposure history	Until termination of license
10 CFR 20.2106(e)	Records of radiation dose to embryo/fetus maintained with records of occupational dose to declared pregnant women	Until termination of license
10 CFR 20.2107(a)	Records of compliance with dose limit for individual members of the public in accordance with 20.1301	Until termination of license
10 CFR 30.35(g)(1)	Records of unusual occurrences involving the spread of contamination in and around a facility (i.e., leaking source)	Until termination of license
10 CFR 30.35(g)(2)	As build drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored and of locations of possible inaccessible contamination (i.e., leaking source)	Until termination of license
10 CFR 30.51(a)(1)	Records of receipt of byproduct material (gauge units)	3 years after transferring/disposal
10 CFR 30.51(a)(2)	Records of transfer of byproduct material (i.e. sold gauge to another testing company)	3 years after transferring material
10 CFR 30.51(a)(3)	Records of disposal of byproduct material	Until termination of license