



# MEADOWS STONE & PAVING, Inc.

GASSAWAY  
PLANT  
(304) 364-2400

P.O. Box 10  
Gassaway, WV 26624-0010  
(304) 364-5151  
Fax (304) 364-5153  
E-Mail [mspi@access.mountain.net](mailto:mspi@access.mountain.net)

MONTERVILLE  
QUARRY  
(304) 339-2838

CRUSHED LIMESTONE  
GENERAL CONSTRUCTION  
ASPHALT PAVING  
CONCRETE CONSTRUCTION

April 26, 2002

Andy Miller, Health Physicist  
Materials Licensing and Inspection, Branch 2  
Division of Nuclear Materials Safety  
United States Nuclear Regulatory Commission  
Region II  
Sam Nunn Atlanta Federal Center 61 Forsyth Street SW Suite 23T85  
Atlanta, Georgia 30303-8931

Dear Mr. Miller,

Meadows Stone & Paving, Inc. has taken the following actions to correct the violations that occurred during your February 19, 2002 inspection.

On Friday, April 26, 2002, we had Radiation Safety Training in our office located on Buffalo Road in Braxton County, WV. The following individuals were present:

C. K. Meadows II  
Claude Cunningham  
David Drake  
John D. Case  
Matthew Dittman

These individuals are the only ones that will be authorized to use the Nuclear Gauges for this company. If any additional individuals are added, they will receive appropriate training before they will be allowed to use the gauges. Matthew Dittman directed the training. I have enclosed a copy of the Lecture guide for your record. All individuals attending signed the guide.

Following the above-mentioned training, all individuals present took a Radiation Safety Test. Everybody passed the exam. I have enclosed a copy of the exam for your record.

If you have any questions, please feel free to contact me or Matthew Dittman at the above phone number.

Very Truly Yours,

C. K. Meadows II  
President

Enclosures

CKM:mjd

Lecture Guide  
Radiation Safety Training

Attendees:

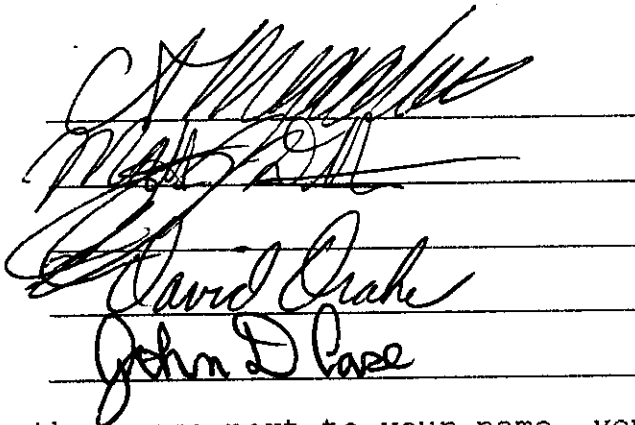
C. K. Meadows II

Matthew Dittman

Claude Cunningham

David Drake

John D. Case



Handwritten signatures of attendees over horizontal lines. The signatures are: C. K. Meadows II, Matthew Dittman, Claude Cunningham, David Drake, and John D. Case.

(by signing in the space next to your name, you acknowledge that you have received safety training and taken a test.)

A. Nuclear Gauge Radiation Sources

I. Americium 241-Beryllium located in gauge

a. emits alpha particles

1. alpha particles will not penetrate skin but can be hazardous if inhaled, swallowed, or enter the body through a wound. Internal hazard only.

II. Cesium 137 located at bottom of source rod

a. emits gamma rays

1. electromagnetic radiation, are the most penetrating type of radiation. Both an internal and external hazard.

B. Radiation Protection

I. Time

- a. limit the amount of time you spend near a nuclear gauge.

II. Distance

- a. doubling the distance from the source will decrease the dose received by a factor of four.

III. Shielding

a. alpha particles

1. easily shielded by the containers for the radioactive sources.

b. gamma rays

1. requires dense material such as lead, the gauge contains tungsten and lead.

- C. Leak Test
  - I. wipe around outside of Americium source inside the gauge and the source cavity on the bottom of the gauge.
  - II. perform leak test every six months.
- D. Shipping Papers and Transporting of Gauge
  - I. shipping papers are to be carried in the cab of the vehicle transporting the gauge at all times. The shipping papers should be readily accessible by the driver.
  - II. if the gauge is removed from the vehicle before the vehicle is moved, the shipping papers must be removed as well.
  - III. when the gauge is being transported in a vehicle, it must be placed as far from the driver as possible. While traveling to the jobsite, the gauge must be secured to the vehicle to limit it's movement in the cargo area. Nuclear gauges must never be carried in front passenger seat. During transportation, the source rod must be kept locked and the gauge box must be locked as well.
- E. Dosimeters
  - I. company supplied dosimeters must be worn when a nuclear gauge is being used or is out of it's container.
- F. Storage Areas
  - I. gauges must be stored in a limited access room, away from the general population of the office. The room must be locked after hours and access to the room must be kept to a minimum during business hours.
  - II. When stored, the gauge source rod must be locked and the gauge must be in it's storage box and it must be locked.

G. Emergency Procedures

- I. If a gauge is physically damaged, the following procedure must be followed
  - a. Rope off area and keep personnel a minimum of 50 feet from gauge.
  - b. Do not touch, move, or disturb gauge.
  - c. Make sure a qualified person remains outside the roped off area to insure that the gauge isn't disturb.
  - d. Contact the office at 364-5151.
  - e. Contact the Nuclear Regulatory Agency in Atlanta at 1-800-577-8510.
- II. If a gauge is lost or stolen, immediately notify the main office.

## Radiation Safety Test

Name \_\_\_\_\_ Date \_\_\_\_\_

Passed \_\_\_\_\_ Failed \_\_\_\_\_

1. The nuclear gauge contains Americium 241-Beryllium and what other type of radioactive source?
  - a) Plutonium
  - b) Detruium
  - c) Uranium
  - d) Cesium 137
2. Alpha Particles are the most penetrating type of radiation and are both an internal and external hazard?
  - a) True
  - b) False
3. The nuclear gauge contains lead and what to help reduce exposure to gamma rays?
  - a) Wood
  - b) Tungsten
  - c) Iron
  - c) Clay
4. What is the frequency for performing a leak test?
  - a) 3 months
  - b) 9 months
  - c) 6 months
  - d) whenever
5. Shipping papers should be kept in the gauge box at all times?
  - a) True
  - b) False
6. Dosimeters must be worn whenever a gauge is out of its storage container?
  - a) True
  - b) False
7. Nuclear gauges must be stored in what area?
  - a) Outside
  - b) At your house
  - b) In a water bath
  - c) In a limited access room

8. When transporting a nuclear gauge, you should put in the seat next to you to make sure nothing happens to it?
  - a) True
  - b) False
9. If the gauge is run over by a roller on the job, what should you do first?
  - a) Rope off the area
  - b) Slap the roller operator
  - c) Call the NRC
  - d) Bury it before anyone finds out
10. If a nuclear gauge is stolen, you should?
  - a) Call the office
  - b) Say nothing
  - b) Call the NRC
  - d) Take the money and run



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## SHIPPING PAPERS

Shipper: Meadows Stone & Paving, Inc.  
PO Box 10  
109 Buffalo Road  
Gassaway, WV 26624

RQ, Radioactive Material, Special Form, NOS, UN2974, Class  
7, Type "A" Package, Containing:

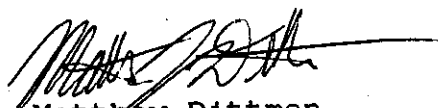
Cs - 137, 0.32 gigabecquerels  
Am - 241:Be, 1.48 gigabecquerels

Radioactive Yellow II Label, TI = 0.1

Emergency Contact Numbers: 304-364-5151 if no answer  
304-364-8523

This is to certify that the above named materials are  
properly classified, described, packaged, marked and  
labeled, and are in proper condition for transportation  
according to the applicable regulations of the US Department  
of Transportation.

Gauge Model: 3450  
Gauge S/N: 154

  
Matthew Dittman  
Compaction Technician