



FLEIS & VANDENBRINK
ENGINEERING, INC.

Offices in Grand Rapids, Traverse City, and Muskegon

September 25, 2006

Document Control Desk, Director
Office of Nuclear Security & Safeguard
Nuclear Regulatory Commission
Washington, DC 20555-0001

RE: Materials License #21-26580-01, 30-day Event Report

On September 18, 2006 we informed Mr. Huffman at the NRC emergency phone number (301) 816-5100 of an accident involving a density gauge. The event time was recorded as 14:25 and the reference report number is 428-45.

The gauge was intrude by our certified operator Mr. Phil Vannoy, who was checking soil density along a grading operation on I-96 just west of the Mid-Michigan Railroad Bridge in Grand Rapids, Michigan. The grader operator, who was aware that Mr. Vannoy was testing in the area, apparently lost track of his location and began backing the grader towards Mr. Vannoy and the gauge. Mr. Vannoy tried unsuccessfully to get the operators attention and pulled the gauge out of the way and backed away as the grader passed. The tire of the grader hit the gauge and knocked it out of Mr. Vannoy's hand, breaking the index rod. At the time of the hit, the source was retracted into the gauge and there was no apparent damage other than the index rod. Mr. Vannoy left the gauge in place, secured the area and called our office.

I left for the site at approximately 14:40 with a radiation survey meter. I called the Michigan State Police en-route to notify them of the accident. Lieutenant Hobrek of the State Emergency Management Department and Lieutenant Jack Stuart of the Kent County Emergency Management Department both called for details between 14:50 and 15:05 while I was on-site.

At the site, the radiation survey meter indicated no levels of radiation above background at the location of use. Levels at and around the gauge were normal. Photos of the site and gauge are attached. While on site, Brian Whitsett of the Michigan State Police, Sixth District Emergency Manager Coordinator, arrived and was informed of the status. Also, Mr. Kenneth Coble of the Michigan Department of Environmental Quality Waste & Hazardous Materials Division, Radiological Protection and Medical Waste Section called me while on-site. I filled Mr. Coble in on the status and he was satisfied and asked us to follow-up with photographs.

Mr. Vannoy and I loaded the gauge into the transport container and brought it back to our storage facility. I spoke with the gauge manufacturer regarding the radiation survey meter readings and damage to the gauge. They were in agreement that the readings were normal and instructed us on how to secure the source rod and prepare for shipment to their facility. We secured the source rod (see attached photo) and completed a leak test. The leak test sample was sent by overnight mail to the gauge manufacturer.

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I called Ken Lambert in Region III of the NRC at approximately 17:00 and provided him with information on the accident. On September 19, 2006 we received leak test results indicating no abnormal levels of radiation. We also received a call from the Michigan Department of Transportation (MDOT) requesting a visit to see the gauge. Mr. Justin Foster, Density Specialist with MDOT, visited on September 20, 2006 to see the gauge, take photos and discuss the accident.

The gauge is a Troxler 3430 Model, serial number 30135 containing Cs 137 0.30 GBQ (8.0 mci), Am-241: BE 1.48 GBQ (40.0 mci).

Our other gauge operators are being informed of the accident and reminded to stay alert of their surroundings while using the gauge and make sure contractors know they are in the area.

Please feel free to call with any questions regarding this accident.

Sincerely,

FLEIS & VANDENBRINK ENGINEERING, INC.



Paul R. Galdes, P. E.

Radiation Safety Office, Fleis & VandenBrink Engineering, Inc.

cc: Regional Administrator, Region III, NRC
Kenneth Coble, MDEQ, Waste & Hazardous Materials Divisions
Justin Foster, MDOT, Density Technology Unit

September 18, 2006

To: Paul Galdes


From: Phil Vannoy

Subject: Troxler Damage

On September 18, 2006 I was using our troxler on the MDOT job site west of the I-96 Mid Michigan Rail Road Bridge. I was checking sand density in the west bound lane of the new temporary widening lane of I-96 behind a road grader operated by personal from K&R. I had been following the grader taking tests every 100' and working behind the grader. I was in the process of taking a test when the grader who was ahead of me approximately 75-100' stated backing up. I waited for the operator to stop as he had before, but this time he continued to where I was standing next to the gauge taking the 1 minute test. I moved out of the way grabbing the gauge, but the rear tire hit the gauge that was in my hand breaking the depth rod. The source rod had been retracted into the housing at the time of contact. No visible damage to the source rod or housing box was observed. I proceeded to call our office and keep the area clear until you arrived.

Sincerely

Phil Vannoy

A handwritten signature in black ink, appearing to read "Phil Vannoy", with a long horizontal flourish extending to the right.

Paul Galdes

From: Kenneth Coble [coblek@michigan.gov]
Sent: Wednesday, September 20, 2006 12:53 PM
To: Paul Galdes
Subject: Troxler Gauge Accident Pictures

Mr. Galdes:

Thank you for forwarding pictures of the damaged gauge; they are very interesting. It appears to me that appropriate steps were taken by Fleis & Vandenbrink Engineering to investigate potential source leakage issues and to secure the device.

Kenneth Coble (coblek@michigan.gov)
Michigan Department of Environmental Quality Waste and Hazardous Materials
Division Radiological Protection and Medical Waste Section
525 West Allegan Street
Lansing, Michigan 48909

phone 517-241-1255, fax 517-373-4797

Photos showing secured source rod



Photos at site of accident





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FROM:



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