MATHY CONSTRUCTION COMPANY
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July 25, 2001

USNRC
Region III
801 Warrenville Road
Lisle, IL 60532-4351
Attention: Mr. Gary Shear

10 CFR Part 20 3.20.2201 Report on Theft and Recovery of a Nuclear Density Gauge

Description of licensed material:
Troxler Model 3440 Density/Moisture Gauge, SN 26689 containing:
Cs-137, SN 75-98-23, 8mCi (current activity as of 7/18/01, 7.1 mCi) and
Am-241:Be, SN 47-23162, 40 mCi (current activity as of 7/18/01, 39.7 mCi)

Description of Circumstances under which the loss or theft occurred:
On July 18, 2001, a technician stopped for gas, ice and a bathroom stop at a Kwik Trip with the gauge secured in the back of a pickup. The theft was discovered when the technician returned to the job site. The technician reported that the case was closed when she put ice in the back of the pickup. The technician returned to the Kwik Trip looking for the gauge. When she was unable to locate the gauge she called the company RSO and informed the Division Manager. The Division Manager sent additional staff to look for the gauge. He also notified all company work crews in the area to be on the lookout the gauge. The RSO, Division Manager, and technician called the NRC Region Office, the NRC Emergency Operations Center, the Baraboo Police Department and the Wisconsin DOT RSO, who then agreed to report the theft to the Wisconsin Dept. of Health. Company owners were notified of gauge loss.

Disposition of licensed material:
The gauge was found within 30 minutes approximately three blocks away from the Kwik Trip by a veterinarian on US 12. The vet turned the gauge over to a Sauk sheriff's deputy who then returned the gauge to company paving foreman (one of the staff looking for the gauge). The paving foreman then secured the gauge (kept everyone at least 15 feet away from the gauge) until the technician arrived. The technician secured the gauge until the assistant RSO surveyed the site and determined the gauge was undamaged. He then returned the gauge to Company headquarters. At Company headquarters the gauge was leak tested. The leak test was negative and the gauge has been returned to service.

Possible total effective dose equivalent exposures to persons in unrestricted areas:

Thief: max. 30 minutes carrying and transporting gauge in vehicle:	1.2 mRem
Vet (finder of gauge): carrying and transporting gauge to office:	0.5 mRem
Staff and visitors to vet's office (may have been within 5ft of gauge):	0.04 mRem
Sheriff's Deputy: carrying and transporting gauge in vehicle:	1.9 mRem
Others who may have been within 10ft of gauge:	0.03mRem

These possible total dose equivalents were calculated from the following exposure rates as measured with a calibrated survey meter:

Carrying the gauge (highest reading directly against gauge) :	10 mRem/hr
At a distance of 1 ft away from the gauge:	1.4mRem/hr

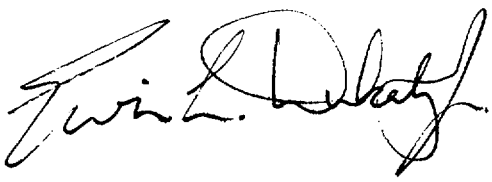
The maximum probable exposure times used to calculate total dose equivalents are based on reports and interviews of those involved in the incident. Maximum carrying time was assumed to be 3 minutes a or a distance of 250 yards, well in excess of actual. Using these values indicates that all probable maximum doses are less than the 2 mRem maximum allowed in unrestricted areas.

Procedures and measures that have been taken to prevent a recurrence of loss or theft of a gauge:

1. Employee was suspended and then employment was terminated after company investigation.
2. All nuclear density gauge users, supervisors and company managers were sent a policy memo requiring signed acknowledgement that the recipient understood the company policy and procedures for transportation and security of portable nuclear density gauges. And, that the signatory understood the disciplinary and legal consequences of failure to follow company policy and procedures.
3. All memo recipients responded within 7 days of the incident.
4. All new employees are required to sign nuclear density gauge policy and procedures memo after completion of nuclear safety certification course and before use of any company nuclear density gauge.
5. NRC IN 2001-11 was distributed to company owners and each paving division where it is being used in weekly safety meetings.
6. Team approach is being emphasized in all training, so that supervisors and technicians are working together (shared responsibility) to prevent violations of company policies and procedures.
7. RSO and staff will be making more frequent field inspections.

The incident appears to be a random incident which the procedures and measures listed should prevent.

Sincerely,



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RSO