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Administrator of Region II Office
U.S. Nuclear Regulatory Commission
Sam Nunn Atlanta Federal Center, 23 T85
61 Forsyth Street, SW
Atlanta, GA 30303-8931

Joseph M. Richards
Safety Department

Dear Sir:

In accordance with 10 CFR, Part 20.2201 (b), this letter is to report a missing industrial density gauge containing Cesium 137 licensed material. Please note that this incident was reported to both the Region II Office and the NRC Headquarters Operations Center on the afternoon of 6/11/03 and assigned **NRC Event Number 39922**.

1. A description of the licensed material involved, including kind, quantity, and chemical and physical form.

The licensed material is contained within an industrial fixed-gauge, density-measuring device with the following specifications:

- Manufacturer: Texas Nuclear (TN)
- Model No: 5202, Series SG
- Serial No: B174
- Isotope: Cesium 137
- Activity: 500 mCi (estimated activity as of 6/03 is 322 mCi)
- Date Measured: 11/84
- Physical form: Special form/sealed source

2. A description of the circumstances under which the loss or theft occurred.

On the night of 1/28/03, Mr. Jeff Henderson, operating as the RPO under NRC license no. 41-25100-01 with Precision Product Controls, Inc., removed this industrial gauge from its fixed location on a pipe on the first floor of Consolidation Coal Company's Buchanan Mine Preparation Plant located on Route 632, Mavisdale, VA 24627. On the morning of 1/29/03, while still operating under the control of Mr. Henderson as outlined in item #12 of the license, Mr. Henderson and the Buchanan Mine General Plant Foreman Mr. Tom Burton, relocated the gauge to a building directly behind the plant for temporary storage. According

to Mr. Henderson, the shutter on the gauge was padlocked in the closed position at the time the gauge was placed in storage.

On 6/2/03, Mr. Burton discovered that the gauge was missing and began a search for the device. A diligent search continued for the gauge from 6/2/03 through 6/4/03. Unable to locate the device, it was declared missing.

On the afternoon of 6/11/03 within 30 days of the telephone report date, after researching the incident and assembling information about the gauge, the NRC was called and the gauge reported missing.

3. *A statement of disposition, or probable disposition, of the licensed material involved.*

The probable disposition of the device as is known today remains uncertain. An investigation into the waste streams from the plant in which the device may have entered (i.e., scrap metal vendor and municipal waste collector) indicate it did not leave the plant property through such means. Contacts with management personnel of the scrap metal vendor, the municipal waste collector and final destination landfill where the plant's municipal waste is ultimately discharged, indicate that all waste ultimately passes through radiation detection sensors designed to alarm at the presence of materials such as industrial gauges containing radioactive sources. According to the individuals contacted, no alarms were triggered indicating the presence of radioactive materials for the relevant time period.

General radiation surveys using a Bicon Micro-Analyst Micro R Survey Meter, calibrated on 3/5/03, continue in various locations in an effort to locate the gauge.

4. *Exposures of individuals to radiation, circumstances under which the exposures occurred, and the possible total effective dose equivalent to persons in unrestricted areas.*

We have no evidence of individual exposure to radiation from this source. According to the contractor who removed the gauge from its fixed location within the plant, the shutter on the device was padlocked in the closed position at the time it was placed in storage. In addition, the last leak test of the device taken 9/3/02, indicated leakage of less than 0.005 μCi .

The Sealed Source and Device Registry Certificate (Registry # TX0634D139B) for this device states that this device is designed to include sufficient shielding to reduce radiation levels everywhere to less than 5 mRem/hr at one foot from any accessible surface at maximum loading. As far as environmental conditions are concerned, the gauge will withstand acid and corrosive temperatures, high pressures, and temperature environments up to the melting point of lead.

5. *Actions that have been taken, or will be taken, to recover the material.*

- Interviews with all plant employees have been performed to determine if anyone has seen or knows the whereabouts of the gauge.
- Group meetings were held with each shift on the Page Portal side of the Buchanan mine where the preparation plant is located to notify mine employees of the event and enlist

their assistance in finding the gauge.

- Contacts were made with the scrap metal dealer and municipal waste collector who provided collection services for the plant between the time the gauge was last seen and discovered missing. According to these waste and metal recycling vendors, drivers of their collection vehicles would also be contacted in an effort to find the device.
- Waste transfer stations and final-destination landfills were also contacted about the missing gauge and the detection equipment they had in place to detect such a device should it pass through their facility. In discussions with management from each end-line facility, we were informed that radiation detection devices were in place to detect the presence of radiation sources.
- Independent contractors who were on plant property between the time the gauge was last seen and discovered missing have been contacted concerning the disappearance of the device.
- General radiation surveys of both the plant and local mine site including the supply yard, waste areas, shop areas, metal collection locations and warehouse have been completed and are being repeated.
- A company-wide email has been distributed throughout CONSOL Energy about this incident, including a description and illustration of the gauge and contact information should the device have been inadvertently picked up or transferred to another location.

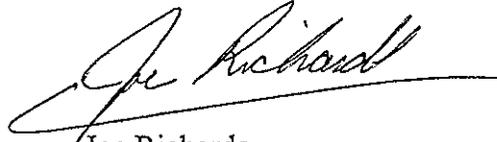
6. *Procedures or measures that have been, or will be, adopted to ensure against a recurrence of the loss or theft of licensed material.*

As a result of this incident, the following items have been or will soon be implemented at the Buchanan Plant and on a company-wide basis.

- Each location possessing licensed material will have a dedicated box or container capable of accepting a padlock, which will be used solely for the security of licensed material when temporary storage is necessary.
- Where generally licensed material is used or stored, an annual review of the radiation protection program will be conducted, which will include security measures in place to safeguard such materials.
- Ancillary training of employees will be upgraded to include security and control of licensed material.
- A meeting is scheduled with plant managers and other individuals who oversee both generally and specifically licensed materials. Responsibilities for management of licensed materials along with discussion of safety and security measures in controlling such materials will be reviewed.

In conclusion, Buchanan Preparation Plant and Consolidation Coal Company regret this incident and continue in their efforts to locate this licensed material. Should we discover additional information as to the whereabouts of this device, the NRC Region II Office will be promptly notified.

We appreciate your help and cooperation in this matter. Should you have any questions or concerns, please contact me.



Joe Richards
Manager of Occupational Safety & Health

On behalf of Consolidation Coal Company

Mr. Bryan Parker..... NRC, Region II Office
Mr. Richard Gibson NRC, Region II Office