

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 03005985/82-01

License No. 37-00276-25

Category C(1)

Priority 2

Docket No. 03005985

Licensee: Pittsburgh Testing Laboratory  
850 Poplar Street  
Pittsburgh, PA 15220

Facility Name: Pittsburgh Testing Laboratory  
4734 Spring Road  
Brooklyn Heights, OH 44131

Inspection Date: August 10, 1982

Inspector: *Evelyn R. Matson*  
E. Matson

10/7/82

Approved By: *D. J. Sreniawski*  
D. J. Sreniawski, Chief  
Materials Radiation Protection  
Section 2

10-7-82

Inspection Summary

Special Inspection on August 10, 1982, (Report No. 03005985/82-01(DETP))  
Areas Inspected: Special, unannounced inspection of allegations received in Region III on August 3, 1982, by telephone from an anonymous individual. The allegations were: Nuclear moisture and density gauges are being stored at 4734 Spring Road, Brooklyn Heights, Ohio, which is an unauthorized place of storage; that a source was being brought in to do x-ray work; and that there is no NRC approved radiation safety officer on the premises. The individual was also concerned for personnel safety. These items are covered in this report. Other areas inspected were licensed program, facilities and security, personnel monitoring, leak tests and inventories, receipt and transfer, instrumentation, and confirmatory measurements. The inspection involved 3.5 inspector hours by one NRC inspector.  
Results: Of the three allegations, all three were substantiated and one resulted in an apparent item of noncompliance: Moisture and density gauges are being stored at a location not authorized by the license. Refer to Section 2. Of the seven other areas inspected, a second apparent item of noncompliance was identified: A survey meter was not available at the laboratory for surveying nuclear units as required by a letter referenced in License Condition No. 20; see section 7.

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## DETAILS

### 1. Persons Contacted

\*Richard D. Biacella, P.E., Manager, PTL - Cleveland  
J. E. Nalepa, Assistant Manager, Radiation Records, PTL - Pittsburgh  
Ann Homyk, Secretary, PTL - Cleveland  
Charles Griffith, Employee, PTL - Cleveland  
E. L. Andresky, Radiological Safety Coordinator, PTL - Pittsburgh

\*Attended exit interview on August 10, 1982.

### 2. Licensed Program

NRC Byproduct Material License No. 37-00276-25 is an industrial radiography license authorizing the possession and use of sealed sources for industrial radiography, moisture and density gauges, and instrument calibration.

The authorized places of use include temporary job sites throughout the United States and the Gulf of Mexico. License Condition No. 10 also states the licensee may store byproduct material at:

Pittsburgh Testing Laboratory  
1715 Brookpark Road  
Cleveland, Ohio 44109

On August 10, 1982, the inspection revealed that the licensee had moved the Cleveland district laboratory in May 1982, from 1715 Brookpark Road to 4734 Spring Road, Brooklyn Heights, Ohio. This laboratory is not a temporary job site and is being used to store moisture and density gauges.

One allegation that nuclear moisture and density gauges were being stored at 4734 Spring Road, a location not authorized by the license, is substantiated and is an item of noncompliance.

Pittsburgh Testing Laboratory (PTL) main headquarters is located in Pittsburgh, Pa. The company has many authorized storage locations throughout the United States, including the Cleveland district which is active only in the use of Troxler Model 3411 moisture and density gauges. At the time of the inspection, PTL - Cleveland district office had two of these gauges and 4 other gauges not licensed under NRC jurisdiction. See Section 5 for additional details.

As described in the referenced application dated July 19, 1979, Supplement 3, the Cleveland location is only performing nuclear moisture and density gauge work and E. L. Andresky (PTL - Pittsburgh) acts as Radiation Safety Officer. The allegation that there is no NRC approved R.S.O. at the Cleveland district office is substantiated, however, this situation has been approved by the NRC because of the limited work being done at this location.

Discussions with the licensee revealed that there are plans to begin an industrial radiography program in the Cleveland district possibly within the next six months. Proper NRC approval and an amendment will be obtained before this work begins. The second allegation is substantiated but is not an item of noncompliance.

One apparent item of noncompliance was identified.

3. Facilities and Security

The new facilities at 4734 Spring Road are located in an industrial office complex and are composed of office spaces and a warehouse section. No equipment or facilities are available at the present time for the proposed radiography operation. Neither are there any special storage areas for the Troxler gauges which are kept on benches in the warehouse area. They are not stored near any area where individuals spend any length of time, such as desks or work stations. The facilities appear adequate for the limited amount of material possessed. The concern for personnel safety appears to be unfounded.

The office and warehouse areas are locked when unattended and the gauges properly secured at this location.

No item of noncompliance was identified.

4. Personnel Monitoring

All employees who use the nuclear gauges are assigned a whole body radiation film badge supplied by R. S. Landauer. The badges are received from and returned to the Pittsburgh office for exchange every month. The records were reviewed for the period January 10, 1981, to June 9, 1982. This review showed that the copy of the records at PTL - Cleveland district were not complete in that they did not contain the birth dates, social security numbers, or sexes of the individuals badged. However, the licensee stated that PTL - Pittsburgh does maintain this information with their records. Those records were not reviewed at this time. The record review also showed two excessively high whole body film badge readings for the period April 10, 1982, to May 9, 1982. The highest reading was 2190 millirem and the other was 1470 millirem, both caused by gamma and x-rays. Discussions with the District Manager and an employee who was assigned one of the badges revealed these exposures were to the badge only and do not constitute actual exposures to individuals. The two badges reportedly were shipped to a job inside the shipping crate carrying the gauge. They were stored there for several weeks before being discovered. The incident was investigated by the Radiation Safety Officer in Pittsburgh and documented.

No item of noncompliance was identified.

5. Leak Tests and Inventories

The licensee currently has two Troxler Model 3411B moisture and density gauges. Each has 8.1 millicuries of cesium-137 and 40 millicuries of americium-241/beryllium. This is within the licensee possession limits of no single source to exceed 10 millicuries for cesium-137 and no single source to exceed 40 millicuries for americium-241. The licensee also has four radium-226/beryllium sources in Troxler gauges. These gauges are not regulated under NRC jurisdiction.

The licensee conducts quarterly inventories to account for all radioactive material received, possessed and used. The last inventory was conducted on July 16, 1982, and is adequately documented.

Leak tests are performed on each gauge every six months and sent to Applied Health Physics for analysis. Leak test records for the gauge in the laboratory at the time of the inspection was reviewed and results were less than .005 microcuries of removable contamination.

No item of noncompliance was identified.

6. Receipt and Transfer

All gauges are received from PTL - Pittsburgh. Each one has a DOT approved shipping box that is marked and labeled as required. Each gauge is also labeled with Caution Radioactive Material sticker, quantity and kind of isotope, make and model number, serial number and the latest leak test results. Receipt records are maintained and were reviewed for the gauge on hand.

Gauges are transferred to PTL - Pittsburgh for repair and servicing. Records are maintained and appear adequate.

No item of noncompliance was identified.

7. Instrumentation

License Condition No. 20 references a letter dated April 29, 1982, which includes an attachment entitled "Radiation Safety Procedures for Use of Nuclear Surface Moisture Density Gauges", dated January 1, 1980. This procedure states on page 8-E, Section 4.1.a., that a survey meter will be available at the laboratory for making radiation surveys of each nuclear unit. Surveys of gauges are required to be made upon receipt or transfer, before leak testing, and during any malfunction or problem.

On the day of the inspection, and based on information obtained in a telephone conversation with A. L. Andresky on September 10, 1982, a radiation survey meter was not available for performing surveys at the Cleveland district laboratory.

One apparent item of noncompliance was identified.

8. Confirmatory Measurements

On August 10, 1982, the inspector measured the radiation levels on two gauges using an Eberline E-520 G-M survey meter, NRC No. 009574, with an end window detector, calibrated on May 20, 1982. Surveys of the Troxler Model 3411B gauge showed radiation levels at the surface of 13 mR/hr on the side, 7 mR/hr on top, 8 mR/hr at the back, and .1 mR/hr at 3 feet. A radium-226/beryllium gauge measured a maximum of 90 mR/hr on surface and .7 mR/hr at 3 feet.

No item of noncompliance was identified.

9. Exit Interview

The inspector reviewed the allegations and the findings of this inspection with Mr. Biacella on the day of the inspection, and with Mr. Andresky by telephone on September 10, 1982. Also discussed were the apparent items of noncompliance identified in this report.