

Region I
NMSS Licensee Event Report

License No. X

Docket No. X

MLER-RI 2000-029

LICENSEE: Smith Kline Beecham

EVENT DESCRIPTION _____

EVENT DATE 9/1-5/00 REPORT DATE _____

1. REPORTING REQUIREMENT

- ☐ 10 CFR 20.2201 Theft or Loss
☐ 10 CFR 20.2203 30 Day Report
☐ 10 CFR 30.50 Report
☒ Other Not Required

- ☐ 10 CFR 35.33 Misadministration
☐ License Condition

2. REGION I RESPONSE

- ☐ Immediate Site Inspection
☒ Special Inspection
☐ Telephone Inquiry
☐ Preliminary Notification
☐ Information Entered on the RI Log
☐ Review at Next Routine Inspection
☐ Report Referred to _____

Inspector/Date _____
Inspector/Date 9/5
Inspector/Date _____

3. REPORT EVALUATION

- ☒ Description of Event
☒ Levels of RAM Involved
☒ Cause of Event

- ☐ Corrective Actions
☐ Calculation Adequate
☐ Letter to Licensee Requesting
Additional Information

4. SPECIAL INSTRUCTIONS OR COMMENTS

Inspector attended meeting with
concerned individuals

Completed By: [Signature] Date 11.6.2001

Reviewed By: [Signature] Date 11.6.2001

**Re: Radiological Incident related to former Smith Kline Beecham
building located on Spring Garden Street, Philadelphia, Pennsylvania,
between 16th and 17th Streets.**

September 1 and 5, 2000

RECEIVED
REGION 1
2000 SEP 18 PM 2:01

Pamela J. Henderson, M.S.
U.S. Nuclear Regulatory Commission
Senior Health Physicist
475 Allendale Road
King of Prussia, PA 19406-1415
610.337.6952

John C. Smyth, First Vice President
Amerimar Enterprises, Inc.
1528 Walnut Street
Philadelphia, PA 19102
215.545.1800

Timothy E. Singleton
Project Manager
Suffolk Construction Company, Inc.
65 Allerton Street
Boston, MA 02119
Jobsite 617.210.4770

John F. Dershimier, Business Representative
Electricians I.B.E.W. Local Union #98
1719 Spring Garden Street
Philadelphia, 19130
215.563.2774
dersh@ibew98.org

Donald P. Heim, Vice President
Accredited Environmental Technologies, Inc.
28 North Pennell Road
Media, PA 19063
610.891.0114
AETPA@EROLS.COM

Fred Cosenza, Business Representative
Philadelphia Pennsylvania Building & Construction Trades Council, AFL-CIO
2791 Southampton Road
Suite 100
Philadelphia, PA 19154
215.677.8500

Kevin Garnot, Health and Safety Officer

**Re: Radiological Incident related to former Smith Kline Beecham
building located on Spring Garden Street, Philadelphia, Pennsylvania,
between 16th and 17th Streets.**

September 1 and 5, 2000

LVI Environmental Services, Inc.
425 Creamery Way
Suite A
Exton, PA 19341
610.594.5511
philadelphia@lviservices.com

Re: Radiological Incident related to former Smith Kline Beecham building located on Spring Garden Street, Philadelphia, Pennsylvania, between 16th and 17th Streets.

September 1 and 5, 2000

September 1, 2000

Late on August 31, 2000 the Bureau of Radiation Protection, Southeast Office, was notified of a load of scrap metal that was rejected by a recycling facility because a radiation monitor measured levels of radiation above alarm levels. The scrap was returned to its place of origin, 17th Street and Spring Garden Street, Philadelphia, Pennsylvania. The building was undergoing demolition for renovation. The building was formerly occupied by Smith Kline Beecham and was used for office and research. The research included the use of several radioactive materials.

On Friday, September 1, the trailer containing the radioactive material was surveyed by DEP and some radioactive hot spots were noted. Some material was removed from the trailer. A spectrum was acquired and analyzed. Radium 226 was identified. Several hot spots were noted throughout the load.

When the scrap was rejected the construction company acquired the services of a consultant, Teledyne Brown Engineering Environmental Services from Westwood, New Jersey. The consultant arrived on the morning of September 1 and assisted in the survey.

A survey of the building where the scrap had come from was requested. DEP and Teledyne personnel surveyed the basement and some other parts. A few glass pipes were found which contained a residue. Teledyne measured small amounts of beta radiation from the material. This was the only area of the basement surveyed where radiation levels were above background. The beta did not represent an external exposure issue since the material was still in the pipe. Tests performed by Teledyne indicated the presence of removable contamination in the pipes of Carbon 14 and Hydrogen 3. The levels were below the levels specified by the Nuclear Regulatory Commission for release. More information is available from Teledyne. The facility had been released by the Nuclear Regulatory Commission for unrestricted use.

Meanwhile the issue of the presence of Radium continued. Since a discrete source had not been identified the possibility of uptake was a concern. The company agreed to have Teledyne conduct urine tests for employees. Later this issue of uptake was not regarded as likely, but the tests were performed for those interested in doing so.

During the afternoon DEP continued to survey the scrap (which was outside). A wall clock with green paint was found in the rubble. The numbers and hands of the clock were painted with a paint containing Radium 226. An Exploranium GR-130 survey/gamma spectrum instrument was used to acquire a spectrum. The spectrum indicated Radium 226. The crystal of the clock was not present and some of the numbers had been scratched. Small flecks of paint were found in some of the scrap. These small flecks account for the radiation levels found in other parts of the load. Teledyne will further check the scrap and arrange for proper disposal of any radioactive materials

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found. Exposure rates at the surface of the clock hand were 2.65 millirem per hour as measured with the Exploranium GR-130 meter. The exposure rate is compensated for the energy of the photons.

DEP and Teledyne recommended that the building be checked for clocks, smoke detectors, and other items which may have general license radioactive material. One additional clock with radium paint was found in a room previously used for audio visual activities, possibly production. Several other clocks were found which were similar in appearance but which did not contain radium.

A number of smoke detectors were found, all with Americium 241 sources of nominal 80 microcuries activity. The builder will attempt to contact the manufacturer for possible return. Otherwise Teledyne will arrange for proper disposal.

During the day of September 5, Teledyne personnel surveyed other parts of the building. No other radiation sources were found. Please see their report for further information.

A meeting was held at 3:00 PM on September 5 with the workers, owner, and persons listed on accompanying sheet, where Teledyne and DEP, and the U.S. Nuclear Regulatory Commission presented their findings. Radiological concerns have been addressed. No levels of radiation above background are known to exist in the building. The contractor also provided supplementary safety information and instructions for employees.

Submitted:

Michael R. Cosgrove, Radiation Health Physicist, DEP

Michelle Dyarman, Radiation Health Physicist, DEP