



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

September 24, 2001

Docket No. 03005980

License No. 37-00030-02

Larry Harmon  
Plant Manager  
Safety Light Corporation  
4150-A Old Berwick Road  
Bloomsburg, PA 17815

SUBJECT: INSPECTION 03005980/2001001, SAFETY LIGHT CORPORATION,  
BLOOMSBURG, PENNSYLVANIA SITE

Dear Mr. Harmon:

On May 31 and July 27, 2001, Marie Miller of this office conducted a safety inspection at the above address of activities authorized by the above listed NRC license. The inspection was an examination of your licensed activities as they relate to radiation safety and to compliance with the Commission's regulations and the license conditions. The inspection consisted of observations by the inspector, interviews with personnel, and a selected examination of representative records. The findings of the inspection were discussed with you at the conclusion of the inspection. The enclosed report presents the results of this inspection.

In addition to the inspection activities conducted on May 31, 2001, several NRC representatives and NRC contractors, and two representatives from the Commonwealth of Pennsylvania Department of Environmental Protection, as identified in the enclosed report, toured the site. We appreciated your assistance in providing an overview of past activities at the site, which will assist in our review of your Decommissioning Cost Estimate for remediation of the site.

Within the scope of this inspection, no violations were identified. However, during tours of in-use buildings, one of which is leased by your corporation to another company, paint fumes and repetitious noise levels were evident. Therefore, we referred these concerns to the U.S. Department of Labor, Office of Occupational Health and Safety (OSHA). In response to these concerns, the OSHA Wilkes-Barre Area Office conducted an inspection on August 2, 2001. A copy of their findings from that inspection was provided to us by letter dated August 20, 2001, which we received on September 6, 2001. While there were no safety findings related to Safety Light Corporation work activities, there were observations of your tenant's activities that resulted in issuance of a citation(s) and Notification of Penalty. Based on the OSHA letter, we conclude that no further actions are required on your part.

In accordance with 10 CFR 2.790, a copy of this letter will be placed in the NRC Public Document Room and will be accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html>. No reply to this letter is required.

L. Harmon  
Safety Light Corporation

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Your cooperation with us is appreciated.

Sincerely,

***Original signed by Ronald R. Bellamy***

Ronald R. Bellamy, Chief  
Decommissioning and Laboratory Branch  
Division of Nuclear Materials Safety

Enclosure:  
Inspection Report No. 03005980/2001001

cc:  
Norman Fritz, Radiation Safety Officer  
James Kopenhaver, Radiation Protection Program Manager  
Robert Maiers, P.E., Chief, Decommissioning Division  
Commonwealth of Pennsylvania

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U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

INSPECTION REPORT

Inspection No. 03005980/2001001  
Docket No. 03005980  
License No. 37-00030-02  
Licensee: Safety Light Corporation  
Location: 4150-A Old Berwick Road  
Bloomsburg, PA 17815  
Inspection Dates: May 31 and July 27, 2001  
Date Follow-up  
Information Received: September 6, 2001

Inspector: \_\_\_\_\_  
Marie Miller  
Senior Health Physicist  
date

*Original signed by*  
**Ronald R. Bellamy** **September 21, 2001**

Approved By: \_\_\_\_\_  
Ronald R. Bellamy, Chief  
Decommissioning and Laboratory Branch  
Division of Nuclear Materials Safety  
date

## **EXECUTIVE SUMMARY**

Safety Light Corporation (SLC)  
NRC Inspection Report No. 03005980/2001001

The inspector determined that the licensee had retained an oversight contractor with decommissioning experience. The licensee initiated the process to select a firm to address the sorting, sampling and disposal concerns related to the underground silo remediation project. A schedule for this project is expected to be developed during the Fall of 2001.

Based on the site tours, observations, measurements and discussions with the licensee, the inspector determined that the licensee was maintaining control of the contaminated radioactive material on site from past operations. The storage areas for the radioactive material removed from the underground silos were properly posted, controlled and protected. The site tours provided a good opportunity to assess the site characterization information in relationship to the current conditions of the buildings and former disposal areas, as part of the NRC evaluation of your most recent Decommissioning Cost Estimate (DCE).

The licensee was continuing its onsite and offsite groundwater monitoring program in accordance with its license condition. While no safety concerns were identified, the information provided by PADEP regarding potential increases in both gross alpha and beta radioactivity will be evaluated as part of the NRC's inspection activities, and the evaluation of the licensee's DCE.

Annual radiation worker training was being given to radiation workers. Information regarding maintaining exposures ALARA near the storage area for the underground silo remediation project was also being provided to appropriate staff.

## REPORT DETAILS

### **I. Management Oversight of the Program**

#### a. Inspection Scope

The inspector reviewed the preliminary proposals and plans for control of the sorting, re-packaging and characterization of the stored radioactive and mixed waste to satisfy the requirements of the disposal sites and NRC regulations. No active remediation activities were being conducted onsite.

#### b. Observations and Findings

The licensee stated that they had retained a certified health physicist consultant to review work proposals for completion of the silo remediation project. This consultant has been involved with previous decommissioning projects. Three preliminary proposals were reviewed by the inspector and a representative of the Pennsylvania Department of Environmental Protection (PADEP) to determine if the proposals addressed the complexities of the project. The proposals lack sufficient details regarding specific methods addressing high dose rate waste streams, and sorting and sampling non-homogenous waste streams. The licensee indicated that additional details and scope of work would be requested prior to any contractor selection. The licensee also stated that their oversight consultant would assist them in developing work schedules for this project. Selection of a contractor and development of a schedule is expected in the Fall of 2001. By NRC letter dated July 12, 2001, the NRC had requested a work plan and schedule by September 12, 2001. On September 6, 2001, the licensee requested and was given an extension to provide a status and projected schedule by September 21, 2001.

#### c. Conclusions

The inspector determined that the licensee had retained an oversight contractor with decommissioning experience. The licensee initiated the process to select a firm to address the sorting, sampling and disposal concerns related to the underground silo remediation project. A schedule for this project is expected to be developed during the Fall of 2001.

### **II. Facilities and Equipment**

#### a. Inspection Scope

The inspector walked around the site perimeter fence to observe the condition of the fence and postings on the fence, and performed a radiation survey of the site perimeter, nearest the storage area from the underground silo remediation project, using a micro-R meter (Serial # 033511). In addition, the inspector and several NRC representatives, including the Director, Division of Nuclear Materials Safety, NRC representatives from the Office of Nuclear Material Safety and Safeguards, and NRC consultants involved in the review of the site DCE submitted by SLC in October and

December 2000, toured the site and buildings, observed the general conditions of the buildings, and noted the postings and warnings. Representatives from PADEP also participated in the site tour.

b. Observations and Findings

Based on the site and perimeter tour, the inspector noted that there were no changes to the facility since the last inspection. The perimeter fence was intact with the postings maintained on the inside fence. The licensee's last annual site perimeter radiation survey results and storage area radiation survey results were in agreement with the NRC survey results.

The site tour provided an opportunity to assess the limitations of the characterization data based on the current conditions of the buildings and former disposal areas. These observations are being evaluated as part of the NRC review as to the adequacy of your DCE, which is expected to be completed by the end of this year.

During the tour of Main Office Building, including a portion that is leased to another company, paint fumes and noise levels from a mechanical power press were evident. These concerns were referred to the U.S. Department of Labor, Occupational Safety and Health Administration, Wilkes-Barre Area Office. By letter dated August 20, 2001, which we received on September 6, 2001, we understand that although these concerns were not safety violations, there were three observations related to your tenant's work activities that were cited. Based on the OSHA letter, we determined that no further actions are required on your part with respect to those citations.

c. Conclusions

Based on the site tours, observations, measurements and discussions with the licensee, the inspector determined that the licensee was maintaining control of the contaminated radioactive material on site from past operations. The storage areas for the radioactive material removed from the underground silos was properly posted, controlled and protected. The site tour provided a good opportunity to assess the site characterization information in relationship to the current conditions of the buildings and former disposal areas, as part of the NRC evaluation of your most recent DCE.

### **III. Environmental Monitoring**

a. Inspection Scope

The inspector reviewed the licensee's radiological groundwater monitoring program. The results of the licensee's groundwater monitoring program were also discussed in relationship to the PADEP Groundwater and Surface Water Assessment report for the SLC site, dated March 2001, which was provided to the licensee by PADEP letter dated July 25, 2001.

b. Observations and Findings

The inspector reviewed the trend plots of gross alpha and gross beta analyses for selected well water samples, which were analyzed by a contractor laboratory. The gross alpha and gross beta results in the off-site wells for the period from September 1999 through May 2001 were below the EPA drinking water criteria for gross alpha and the most restrictive beta-emitting radionuclide. These results were consistent with past monitoring periods. Increases in both gross alpha and gross beta results were noted from on-site wells (SL-1 and SL-2), which are closest to the underground silos where soil was disturbed when the silo waste was removed. The trend from these wells will continue to be reviewed during subsequent inspections.

The inspector and a representative from PADEP also discussed with the licensee the general radiological results from the PADEP report dated March 2001 in comparison to selected trend plots from the SLC groundwater data. Because different wells and sampling procedures were followed, direct data correlations could not be made. Nevertheless, it was noted that the PADEP report identified some onsite wells near the boundaries of the SLC property with increased gross alpha and beta activity in comparison to past characterization data. Although some of the groundwater results are above the EPA drinking water criteria for radium-226 and strontium-90, the wells are not used for drinking water and are not defined by EPA as drinking water sources. Well data from the SLC monitoring program showed no such increase, and generally were near or at the minimum detectable concentration for gross alpha and beta analyses. The inspector stated that this information will be considered as part of the ongoing evaluation of the licensee's DCE. PADEP indicated that additional sampling may be undertaken, which is also under consideration by NRC. No safety concerns were identified.

c. Conclusions

The licensee was continuing its onsite and offsite groundwater monitoring program in accordance with its license condition. While no safety concerns were identified, the information provided by PADEP regarding potential increases in both gross alpha and beta radioactivity will be evaluated as part of the NRC's inspection activities and the evaluation of the licensee's DCE.

#### **IV. Training of Workers**

a. Inspection Scope

The inspector discussed with the Radiation Safety Office (RSO) the current training program for radiation workers.

b. Observations and Findings

The licensee stated that they provide annual site specific training to all radiation workers. Workers involved with tritium licensed activities receive training on tritium in addition to basic radiation fundamentals. One health physicist technician was added to the staff in July 2000. The licensee stated his training was completed. Information regarding radiation and maintaining exposures As Low As Reasonably Achievable

(ALARA) with respect to working near the storage waste from the underground silo remediation project was informally discussed with workers and the RSO. In addition, exposure stay times were being tracked for staff, such as the maintenance helper, who cuts the grass at the boundary of this radioactive material area.

c. Conclusions

Annual radiation worker training was being given to radiation workers. Information regarding maintaining exposures ALARA near the storage area for the underground silo remediation project was also being provided to appropriate staff.

### **V. Exit Meeting**

The inspector met with the L. Harmon, Plant Manager, at the conclusion of the onsite inspection on July 27, 2001. The inspector summarized the purpose, scope, and findings of the inspection. The licensee acknowledged the inspection findings.

## **LIST OF PERSONS CONTACTED**

### Licensee

N. Fritz, Radiation Safety Officer

L. Harmon, Plant Manager

## **LIST OF ADDITIONAL PERSONS PARTICIPATING IN SITE TOUR**

### NRC Region I

G. Pangburn, Director, Division of Nuclear Materials Safety

M. Miller, Division of Nuclear Materials Safety

### NRC Office of Nuclear Material Safety and Safeguards

E. Pogue, Division of Wastes Management

T. Fredrichs, Division of Waste Management

B. Eid, Division of Waste Management

### ICF Consultants

H. Finkel

S. Livingstone

J. Mayer

### PADEP

R. Maiers, Bureau of Radiation Protection

B. Werner, Bureau of Radiation Protection