

POLREP # 178 – FINAL POLREP: REMOVAL ACTION COMPLETE

Safety Light Corporation Site

South Centre Township, Columbia County, PA 17815

Latitude: 41.0157 North

Longitude: -76.3762 West

EVENT: Removal Action/Remedial Action – Material Clearance, and Waste Disposal

ATTN: Regional Response Center, John Banks, Martha Rider, Bryan Werner, Cheryl Sinclair, John Ciccone, Dale Motley

I. SITUATION: April 13th, 2023 to September 23rd, 2023

- A. The Safety Light Corp (SLC) Superfund Site encompasses 10 acres along the Susquehanna River in South Centre Township, Columbia County, Pennsylvania, just east of Bloomsburg, Pennsylvania. SLC and its corporate predecessors used radioactive materials to manufacture commercial quantities of luminous devices for military and commercial purposes at the site. The first introduction of radioactive materials to the site was by United States Radium Corporation (USRC) in the late 1940s. Early operations at the facility included the handling of Radium-226, Tritium, Strontium-90, and Cesium-137. Throughout the history of the site, operations have varied significantly. During the 1950's, USRC produced materials using Tritium, Carbon-14, Thallium-204, Krypton-85, and Nickel-63. In 1956, the Atomic Energy Commission issued a license to the facility that authorized the use and distribution of products containing Carbon-14, Iron-55, Cobalt-60, Nickel-63, Zinc-65, Strontium-90, Cesium-137, Polonium-210, Neptunium-237, Uranium-238, Promethium-147, Cesium-144, Ruthenium-106, Actinium-227, and Americium-241. In the late 1960's, work with all radionuclides other than tritium ceased. Tritium was used at the site through 2007.
- B. A Remedial Investigation (RI) of Operable Unit 01 (OU-01) was conducted by EPA contractors in 2006. The RI Report was submitted to EPA in July 2009. In 2008, United States Army Corps of Engineers (USACE) contractors were tasked to demolish seven structures and the temporary waste silo at the Site. In addition, they were tasked to perform waste packaging and transportation. These activities were completed in November 2009. Concerns regarding the stability and possible collapse of the Main Building documented in the Structural Condition Assessment of the Main Building prepared in September 2012 led to site activities resuming in the winter of 2012.
- C. An Action Memo requesting approval for a funding increase and change of scope to secure the deteriorating Main Building, the largest and most radioactively contaminated building on the Site, was approved in November 2012. EPA contractors conducted repairs to ensure a collapse of the Main Building did not occur. During site activities, portions of the Butler Building were also determined to be deteriorating and in need of rehabilitation, documented in the Butler Building weatherproofing and stability analysis memo prepared in January 2013.

- D. An Action Memo requesting approval for a funding increase and change of scope to continue rehabilitation of the Main Building and securing of the Butler Building was approved on February 20, 2013.
- E. An Action Memo requesting approval for a funding increase and change of scope to conduct demolition of six smaller peripheral buildings, disposal of materials from those buildings, an assessment and design for grading and stabilization activities of the West Dump, and additional maintenance of the Site and Main Building, was approved on June 11, 2013.
- F. An Action Memo requesting a funding increase and change of scope to conduct the demolition of the Main Building, the Butler Building and other activities, was approved on December 16, 2013.
- G. A Remedial Task Order providing additional funding to complete all activities associated with the demolition and offsite disposal of the Tritium Building, Nuclear Machine Shop, and Pump House; offsite recycling of the Water Tank; removal and offsite disposal of the foundations associated with the Butler Building and Main Building; removal and disposal of other materials including hazardous wastes, as necessary; and, storage of onsite files for retention as directed by ORC/RPM, was approved on June 20, 2014.
- H. An Action Memo requesting a funding increase and change of scope to further secure the Site by excavation, removal and disposal of contaminated discrete buried objects, buried tanks, associated piping, and contaminated soils was approved on September 26, 2014.
- I. An Action Memo requesting a funding increase and change of scope to further secure the Site by excavation, removal and disposal of contaminated discrete buried objects, buried tanks, associated piping, and contaminated soils was approved on June 15, 2015.
- J. An Action Memo requesting a funding increase and change of scope to continue the removal action, off-site disposal of radioactively contaminated soils and the completion of other actions necessary to stabilize Site conditions was approved on September 30, 2015.
- K. An Action Memo requesting a change in scope to conduct removal actions in the East Lagoon and East Dump, in which extensive soil contamination and contaminated objects had been identified, was approved on February 1, 2016.
- L. An Early Interim Record of Decision was issued by the Remedial Program in June 2016 for the West Dump, West Lagoon, East Dump, and East Lagoon areas of Operable Unit Three (OU-3) of the Site.

- M. A Remedial Task Order providing additional funding was approved on August 12, 2016. The TO provides for the excavation, removal, and off-site disposal of radionuclide-contaminated soils/debris, radioactive discrete objects, and other non-radionuclide contaminants, from the West Dump, West Lagoon, East Dump, and East Lagoon, including backfilling with clean material, regrading, and placement of gravel protective cover.
- N. An Explanation of Significant Differences (ESD) was issued by the Remedial Program on August 24, 2017, to include additional areas for excavation of radionuclide-contaminated soils/debris, which include radioactive discrete objects in the 100-year floodplain and within and immediately adjacent to the abandoned canal on the Site.
- O. A subsequent ESD was issued by the Remedial Program on September 26, 2018 which further modified the 2016 Early-Interim ROD, as modified by the 2017 ESD, to expand and continue excavation in the 100-year floodplain within and immediately adjacent to the abandoned canal up to and including the entire length of the canal on the Site, as necessary. Prior to backfilling, topographical survey information was collected and soil samples were collected for offsite laboratory analysis.
- P. An Action Memorandum was signed on December 6, 2018, for the off-Site removal, treatment and disposal of the Pyro devices.
- Q. The Remedial Program finalized the action for this phase of work on the Site. Site exit free release surveys were conducted on all equipment and trailers prior to leaving the site. A final status survey was completed for the entire lagoon/canal area to present final elevations/contours. A gamma walkover survey was conducted in a completed portion of the excavation of the eastern canal and hot spot excavation in the southeast corner of the Site.
- R. The Removal Program issued a Request for Bid (RFP) for disposal of the Pyros on March 1, 2019. Pyros were placed inside the small conex box and concrete barriers were placed in front of the locked conex door restricting access.
- S. An Action Memorandum was signed on June 13, 2023, for the off-Site disposal of radioactive discrete objects and the excavation of soils contaminated with radioactive substances above 3x background located in the ROW adjacent to Old Berwick Road.

II. ACTIONS TAKEN

- A. The RPM was notified of the intent to install sewer lines on the property right-of-way (ROW) by the South Centre Township. An assessment of the area outside of the fence, adjacent to the Old Berwick Road had never been completed. START completed a gamma survey of the property between the fence and Old Berwick Road and found elevated areas of radioactivity up to 10x background.
- B. The OSC and PA DEP BRP mobilized to the Site with ERRS on July 20, 2023, to assess the condition of the 20' conex box that was the long term storage container for the Pyros. The last of the Pyros was shipped from the Site in August 2022. The survey results demonstrated that the conex box met the criteria specified in ANSI/HPS N13.12-2013 and is suitable for release for unrestricted use. Following the assessment and surveying activities, the conex box was cleared for off-Site transportation and reuse.
- C. Removal mobilized to the Site the week of August 7, 2023, to excavate soils in the area of the planned sewer line adjacent to Old Berwick Road. The soils were staged on the property outside of the flood plain and covered with 6"+ certified clean fill and seeded. All soils above 3x background were removed from the ROW and certified clean fill was placed in areas of excavation and compacted. The excavated area was seeded.
- D. On September 14, 2023, the radium needles found during additional assessment activities of the Site were shipped off-Site for proper disposal.

III. FUTURE ACTIONS

- A. The actions taken above complete the Removal Action at the Site.
- B. The Removal Program has finalized the activities on the Site and all future activities will be undertaken by the Remedial Program under the direction of the RPM.

Ann DiDonato
On-Scene Coordinator
US EPA Region 3