



Long-Term Stewardship Assessment Report

Lehighon Electronics Inc.

EPA ID #: PAD 002 399 186

Lehighon, PA

Assessment Date: December 12, 2017

Report Date: September 7, 2018

INTRODUCTION: Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the Environmental Protection Agency (EPA) Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e. ECs and ICs) and to update the community on the status of Resource Conservation and Recovery Act (RCRA) Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

SITE BACKGROUND: The Lehighon Electronics Inc. (LEI) Printed Circuit facility is located in Mahoning Township, Carbon County, Pennsylvania. The single-story facility is situated on 0.6-acre parcel at 15 Blakeslee Blvd Drive W, Lehighon, PA, at the intersection of Route 443 and Seneca Road. The facility manufactured printed circuit boards from 1963 to 2001. Operations at the Facility included five plating lines, an etching line, an infrared reflow operation, a photographic developing process, and a solvent cleaning process.

On April 8, 2002, EPA issued a RCRA Corrective Action Final Decision to address contamination at the facility. The remediation measures specified in the Final Decision were incorporated into an Administrative Order on Consent, issued on June 19, 2003, between EPA and LEI. The Order requires LEI to complete the following actions.

- Remediate contaminated groundwater to drinking water standards for TCE, TCE breakdown products, and Naphthalene.
- Monitor groundwater at the facility and nearest residential well on an annual basis.
- Remove the TCE storage tank.
- Remove the underground fuel oil tank.
- Provide any facility user with a potable water supply that meets the requirements of the Safe Drinking Water Act. If treated groundwater is used as the potable water supply, the treatment system must be adequately sized with at least two treatment systems in series.
- Upon transfer of the property, LEI shall continue to be bound by the Final Decision requirements. The property transfer instrument shall prohibit the use of untreated groundwater as a potable water supply, until no longer contaminated.

Groundwater Remediation

LEI has operated a groundwater pump and treat system for over 20 years. The first 5 years of operation reduced the TCE contamination from approximately 150 ppb to the 30 ppb range. Since the initial reduction, the TCE concentration has leveled off at approximately 20 ppb.

At the time of the Final Decision, groundwater contamination was attributed to a release from the TCE storage tank. In 2012, additional soil samples were collected to identify other possible sources of contamination that may be releasing contaminants into the groundwater.

TCE was detected at high concentrations in samples taken below the building foundation slab, particularly in the areas of the former sump wells. The contaminated soil is likely acting as a source of continuing release of TCE to the groundwater.

Lead, nickel and copper were detected at concentrations that may be contributing to groundwater contamination. Recent groundwater monitoring has been limited to organic chemicals, therefore, the impact of the metals contamination in the soil on groundwater quality is unknown.

Tank Removals

LEI has removed both the TCE and fuel oil tanks and related contaminated soil.

Potable Water Supply

Since a municipal water supply is not available in the area of the facility, LEI evaluated a Granular Activated Carbon (GAC) filtration system for future use to provide potable water to the property. LEI must develop an operation and maintenance manual for a water treatment system based on the results of the treatment trial.

Notification of Groundwater Contamination

Since the issuance of the Final Decision, Pennsylvania has enacted the Universal Environmental Covenant Act to restrict property uses prevent exposure to environmental contamination at a site. EPA has informed LEI that the required property transfer notification shall be in the form of an environmental covenant.

SITE VISIT: On December 11, 2017, EPA conducted a site visit with PADEP and LEI representatives to assess the status of the remediation and to develop a plan of action to complete the remediation at the facility.

The attendees were:

EPA: Maureen Essenthier, RCRA Corrective Action, essenthier.maureen@epa.gov, 215-814-3416

PADEP Representatives:

Cydney Faul-Halso, Environmental Cleanup and Brownfields Prog, cfaulhalso@pa.gov, 570.830.3118

Tracey McGurk, Waste Management Program, tmcgurk@pa.gov, 570.826.2076

Scott Confer, Water Quality Program, sconfer@pa.gov, 610.861.2135

Richard Malizia, Waste Management Program, rmalizia@pa.gov, 610.861.2156

James Berger, Clean Water Program, jaberger@pa.gov, 570.826.2308

Lehighon Electronics, Inc. (LEI) Representatives:

Austin Blew, LEI President, ablew@ptd.net, 610.377.5990

Vincent Vasiliou, LEI Compliance, 610.377.5990

Bob Schoenberger, Contractor for LEI, rjs.pe@verizon.net, 610.458.5009

Scott Campbell, EarthRes Group, Contractor for LEI, scampbell@earthres.com, 215.766.1211

The representatives met at the LEI facility, located at 15 Blakeslee Blvd Drive W, Lehighon, PA.

In preparation for additional sampling and the excavation of contaminated soil, the frame structure was removed from the west side of the building (atlas sump and reflow sump area). The foundation walls were still standing and the slab was exposed. The remainder of the facility appeared unchanged.

Austin Blew confirmed that the only additional change was the removal of equipment and materials (tiles) from the east side of the building in preparation for demolition of the building.

PADEP representatives inspected the groundwater treatment system, located in the shed at the southeastern corner of the property. They discussed the required O&M needed to comply with the NPDES permit for the treatment system discharge.

PLAN OF ACTION

Following the site visit, the representatives met at the Lehighon Plant in Franklin Township to discuss a plan of action to complete the RCRA Corrective Action obligations at the LEI facility.

All parties agreed to the following plan of action.

- Groundwater Pump and Treat System
 - LEI will replace the treatment filters with clean filters and restart the groundwater pump and treat system.
 - Water samples will be collected before, between, and after the filters. Samples will be collected within 10 days after the system is restarted.
 - Water samples will be analyzed for TCE, 1,2 DCE and total metals.
 - The pump and treat system may be discontinued after the removal of the contaminated soil (source removal), if groundwater quality remains stable or improves.

- Contaminated Soil Removal
 - LEI will remove the contaminated soil that is acting as a continuing source of groundwater contamination. Contaminated soil exceeding the PADEP Act 2 Soil-to-Groundwater values will be removed.
 - LEI will submit a comprehensive plan for the removal of the building structure and the contaminated soil. The plan will include the following components:
 - Delineation of contaminated soil areas;
 - Demolition and removal of the entire building structure, including the foundation walls and slab;
 - Excavation of soil that contains contaminant concentrations above the PADEP Act 2 soil-to-groundwater levels;

- Soil sampling for removal confirmation;
 - Disposal options for the excavated soil;
 - Installation of an impermeable cap at the base of the excavated area to prevent the further migration of contamination that may remain within the aquifer; and
 - Backfilling of the excavated area.
- Environmental Covenant
 - LEI will execute and record an environmental covenant to describe environmental contamination and establish use restrictions to prevent human exposure to contaminants remaining at the facility.

CURRENT SITE STATUS:

EPA and PADEP approved the LEI Soil Remediation Workplan on 2/19/2018. The sampling is ongoing, with excavation of the contaminated soil tentatively scheduled for fall/early-winter of this year.

INSTITUTIONAL CONTROLS (ICS) STATUS:

After the removal action is complete, LEI will execute an environmental covenant describing the environmental conditions and establishing any needed use restrictions.

ENGINEERING CONTROLS (ECS) STATUS:

Soil - Contaminated soil is currently located beneath the building foundation slab. Following the delineation of the contaminated soil area, the soil will be removed and engineering controls will not be needed.

Groundwater – A water treatment system will be needed to treat groundwater for use as a potable water supply, until the groundwater quality meets drinking water quality standards. LEI will prepare an operation and maintenance manual for a treatment system.

MAPPING: Mapping will be completed in conjunction with the environmental covenant.

CONCLUSIONS AND RECOMMENDATIONS: Following the planned removal action, EPA will document the additional actions and the final environmental conditions at the site through the issuance of an Explanation of Significant Differences to the Final Decision.

Prepared by: Maureen Essenthier, RCRA Project Manager