



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

SUBJECT: Ingersoll Rand Company
101 N. Main St. Athens, PA 18810
EPA ID: PAD003039518

DATE: 04/27/2021

Long-term Stewardship Assessment

FROM: John Hopkins, Project Manager (3LD10)

TO: Long Term Stewardship File for Ingersoll Rand Company
RCRA Corrective Action Branch 2 (3LD20)

Remedy Review Summary:

EPA's Final Decision and Response to Comments (FDRTC) dated September 27, 2016 requires Ingersoll Rand Company, located at 101 North Main Street Athens, PA (Facility), to implement the final remedy selected in the FDRTC which includes groundwater monitored natural attenuation, Institutional Controls (ICs) and soil excavation at the Willow Street parking lot. Ingersoll Rand implemented ICs via an Uniform Environmental Covenants Act (UECA) environmental covenant recorded by the Clerk of Courts Office of Bradford County on 07/26/2017. The covenant implements groundwater use and residential land use restrictions. With post-excavation confirmation sampling results for the Willow Street parking lot exceeding the 450 ug/L EPA Residential Soil Regional Screening Level (RSL) for lead, the covenant should also include a future excavation restriction, as required by the FDRTC. Also, groundwater wells on-site have been abandoned after two groundwater sampling events since EPA issued the FDRTC. Two wells have exceeded the Maximum Contaminant Levels (MCLs) for TCE in groundwater during these events. EPA has identified deficiencies regarding the implementation of EPA's remedy decision/environmental covenant restrictions at the Facility property.

Document Review:

The most recent satellite aerial image of the facility 2020 (Google Maps 2021) shows that property use has not changed since the FDRTC or recording of the environmental covenant. Recent satellite aerial image does not show evidence of disturbance or earth-moving activities within the parking lot since remedial excavation activities in 2016.

The corrective action objective for groundwater at the Facility is to attain the MCL for trichloroethene (TCE) and until such time as that standard is met and drinking water standards are restored. The EPA MCL for TCE is 5 ug/L. As required by the Cleanup Plan, twenty-one monitoring wells were sampled for all constituents of concern, primarily TCE, on a quarterly basis (four upgradient wells, fifteen former manufacturing plant wells, and two former foundry wells). Twelve of the twenty-one wells were sampled for monitored natural attenuation parameters.

Four consecutive quarters of sampling were completed between March 2016 and December 2016. On March 9, 2017, Ingersoll Rand submitted a petition for the reduction of attainment sampling to PADEP. The request was



granted in March 17, 2017. Additionally, on March 8, 2017, Thomas Mcnerney of PADEP provided verbal approval to discontinue MNA groundwater sampling. Although stable to decreasing trends were observed for constituents of concern in groundwater during 2016 quarterly events, EPA's MCL for TCE was not achieved or attained at monitoring wells MW-2 and MW-34. On September 14, 2016, results indicated a TCE concentration of 8.3 ug/L at MW-34. On December 15, 2016, results indicate a TCE concentration of 11.3 ug/L at MW-2. Therefore, EPA groundwater Corrective Action Objectives detailed in the FDRTC have not been achieved.

In June 2016, soil in the Willow Street parking lot was excavated to remediate lead impacts. Remedial activities included excavation and offsite disposal of soil, attainment sampling, and backfilling of excavated areas. The area of excavation measured approximately 100 ft² in area. Soil was excavated using a hydraulic excavator to a maximum depth of approximately 6.5 feet below ground surface, removing a total excavation amount of approximately 24.12 tons. The excavated soil was loaded into two lined roll-offs and staged onsite for profiling. Upon approval, Freehold Cartage, Inc., transported soil to the Lowman New York, Chemung City Landfill.

Upon completing the excavation, eight post-excavation confirmation soil samples were collected and were analyzed for lead. Confirmation soil sample results indicated that lead concentrations were below Pennsylvania's Non-Residential Direct Contact Medium Specific Concentrations (MSCs) of 1,000 mg/kg. However, lead concentrations found in four of the eight samples exceeded EPA's residential soil RSL of 450 mg/kg. According to the FDRTC, these concentrations trigger a requirement for all future excavations within the Willow Street parking lot (Parcel 052) to be conducted in accordance with an EPA approved Post-Remedial Care Plan. This restriction was not listed in the recorded environmental covenant.

Recommendations:

EPA recommends that both MW-2 and MW-34 are re-installed and sampled quarterly for VOCs until TCE concentrations are below 5 ug/L for four consecutive sampling events. EPA also recommends that a Post-Remedial Care Plan be submitted for EPA-approval, detailing the inspection and maintenance requirements for the Willow Street parking lot (Parcel 052) and measures to protect workers from unacceptable exposure to contaminants.

Background:

The Facility produced pneumatic hand tools for used in industry and the automotive aftermarket. Manufacturing began in 1905. Processes consisted of forging, machining, painting, powder coating, assembly, de-burring, aqueous cleaning, heat treat finishing, grinding and black oxide finishing. Manufacturing operations were in place until the Facility closed in 2010. The Facility consists of a 400,000 square-foot main factory building and a 7,000 square-foot storage building. The former manufacturing plant is on the western side of North Main Street. The former Foundry Site and a parking lot are located on the eastern side of North Main Street. A second parking lot is located north of Willow Street, and a third parking lot is located west of Pennsylvania Avenue and north of Wheelock Avenue.

The Facility consists of approximately 32 acres at the geographic coordinates 41° 57' 48" North 76° 31' 20" West, which is a relatively urban area. Land use surrounding the Facility property is primarily residential with some small industrial properties located to the northwest. A wholesale petroleum supply store borders the Facility to the south and residential homes lie immediately to the north. Farmland lies directly to the east and west of the Facility property.

Documents Reviewed:

EPA Facility Fact Sheet, which includes: Statement of Basis dated July 21, 2016
FDRTC dated September 27, 2016
Environmental Covenant dated July 26, 2017
Geospatial PDF Site Map
Cleanup Plan, Arcadis, dated November 2015
Act 2 Final Report, Arcadis, dated April 2017

Satellite Imagery of Ingersoll Rand Company facility in Athens, Pennsylvania. Imagery ©2021 CNES / Airbus, Maxar Technologies, PA Department of Conservation and Natural Resources-PAMAP/U.S. Geological Survey, USDA Farm Service Agency, Map data ©2021. Accessed via Google Maps on Mar. 25, 2021





Ingersoll Rand
101 N. Main St.
Athens, PA 18810
EPA ID: PAD003039518



-  Entire Facility
-  Parcel 138
-  Parcel 138 Former Manufacturing
-  Parcel 138 Former Foundry
-  Parcel 052

Institutional Control/Engineering Control
 Corrective Action Remedy Summary

Facility Name	Ingersoll Rand Company			
Address	111 N. Main St. Athens, PA 18810			
EPA ID Number	PAD003039518			
Are there restrictions or controls that address:	Yes	No	Area(s)	Description of restrictions, controls and mechanism
Groundwater Use	X		Entire Facility	Groundwater at the Facility shall not be used for any purpose other than the operation, maintenance, and monitoring activities required by EPA and/or PADEP, unless it is demonstrated to EPA that such use will pose a threat to human health or the environment or adversely affect or interfere with the final remedy and EPA provides prior written approval for such use.
Residential Use	X		Entire Facility	The Facility property is restricted to non-residential use.
Excavation	X		Parcel 052 – Willow Street parking lot	All earth moving activities, including excavation, drilling and construction activities in the Willow Street parking lot shall be conducted in accordance with an EPA-approved Post Remedial Care Plan detailing the inspection and maintenance requirements of the parking lot and measures to protect workers from unacceptable exposure to contaminants
Vapor Intrusion		X		
Capped Area(s)		X		
Other Engineering Controls		X		
Other Restrictions	X		Entire Facility	No new wells shall be installed on the Facility property unless it is demonstrated to EPA that such wells are necessary to implement the final remedy and EPA provides prior written approval to install such wells Owner shall comply with the EPA-approved groundwater monitoring program described in the EPA-approved Cleanup Plan and Cleanup Plan Addendum

<u>Activity and Use Limitation Review Questions:</u>	<u>Yes</u>	<u>No</u>	<u>If Yes, Explain</u>
• With the exception of any groundwater monitoring activities, is groundwater from the upper unconfined and/or upper confined aquifers beneath the Eastman Specialties property used for any purpose?		No	
• Is the former Facility property used for residential purposes?		No	
• Have any new wells been installed on the Facility property?		No	
• Have there been recent earth moving activities, including excavation, drilling and construction activities or future plans for such within the Willow Street parking lot (Parcel 052)?		No	

* Compliance with Activity and Use Limitations confirmed with Eastman Specialties via e-mail on April 21, 2020.