



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

SUBJECT: Long-term Stewardship Assessment
National Standard LLC, Mount Joy Wire Corporation
EPA ID: PAR000514182
1000 East Main Street
Mount Joy Borough, PA 17552

DATE: 9-14-2022 (report) / 6-14-2022 (inspection)

TO: Alizabeth Olhasso, Branch Chief
Long Term Stewardship File for Mount Joy Wire Co.
RCRA Corrective Action Branch 2

FROM: Jeff Christopher, P.G.

Remedy Review Summary:

EPA's Final Decision and Response to Comments (FDRTC), dated September 2016, requires Mount Joy Wire Corporation, located at 1000 East Main Street, Mount Joy Borough, PA (Facility or Property), to implement the selected remedy and maintain land and groundwater use restrictions to prevent human exposure to previously documented contaminants in soil and groundwater. The FDRTC requires the Facility to comply with conditions of the Pennsylvania Department of Environmental Protection (PADEP) Solid Waste Permit No. PAR 000514182 which includes: 1) maintenance of the impoundment cap and groundwater monitoring system; and 2) operation of the groundwater abatement remediation system. Land use restrictions to prevent exposures are documented in an Environmental Covenant, placed on the impoundment area, that was prepared pursuant to the Pennsylvania Uniform Environmental Covenants Act (UECA). The Long-Term Stewardship (LTS) Assessment reviewed facility files and current site conditions relative to the FDRTC and Environmental Covenant. Based on this evaluation the Mount Joy Wire Corporation is currently not in compliance with EPA's Final Decision as discussed below.

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 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 the 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 with the final decision.

The LTS discussed herein was conducted at the Former Mount Joy Wire Facility located at 1000 East Main Street, Mount Joy Borough, Lancaster County, Pennsylvania. The 1.4-acre Facility operated a hazardous waste surface impoundment (impoundment) under RCRA interim status from 1983 to 1988 (RCRA ID No. PAD 003 023 371). Environmental evaluations of the impoundment have identified several

metals in soil and groundwater that exceed the applicable standards. Below is a discussion of the facility's history, remedial efforts, and a review of the ECs and ICs that are associated with the Facility.

Facility Review:

The Facility contained a hazardous waste impoundment from 1978 through 1988. The impoundment was utilized for temporary storage of process wastewater that contained heavy metals and acidic and alkaline liquids. A 1984 inspection of the impoundment identified several holes in the synthetic liner used to contain the wastewater and cracked concrete underlying the liner. Following the inspection environmental evaluations were initiated at the facility and the impoundment was reportedly repaired and continued to operate until it was closed in 1988.

In 1991, National Standard Company sold the manufacturing operations to the current owner, Mount Joy Wire Corporation. National Standard LLC continues to maintain liability for soil and groundwater contamination associated with the impoundment, discussed below.

Soil and groundwater characterization activities identified several metals in soil and groundwater (iron, manganese, nitrates, chloride, sodium, and sulfate) exceeding standards. Soil remedial activities included: 1) closure of the impoundment and removal and disposal of the rubber liner, concrete base, and contaminated soil beneath the impoundment; and 2) construction of a cap to remove exposure pathways to contaminated soil that was left in place. To address constituents in groundwater, a groundwater pump and treatment (GWPT) remedial system was installed in 1985 to maintain hydraulic control of the groundwater plume. Operation of the GWPT is ongoing and subject to the requirements of a Post Remediation Care /Solid Waste Management Permit (PADEP Permit; No PAR 000514182) issued by the Pennsylvania Department of Environmental Protection (PADEP) to National Standard LLC.

The PADEP Permit, modified in 2017, outlines requirements for financial assurance, continued operation and maintenance of the GWPT system, and groundwater protection standards. Permit modifications have included beneficial reuse of extracted groundwater for non-contact cooling water used in manufacturing operations. Following treatment, the extracted groundwater is discharged in accordance with NPDES Permit (NPDES Permit No. PA 004 2781). Mount Joy Wire Corporation maintains and operates the GWPT as part of its operation and use of extracted groundwater.

In 2016, the EPA issued a Statement of Basis, Final Decision, and Permit (EPA Permit; EPA ID No. PAR 000 514 182) for the facility to satisfy the Corrective Action requirements. The EPA Permit incorporates requirements of the PADEP Permit, including continued operation of the GWPT system and maintenance of the impoundment. Following issuance of the EPA Permit, an Environmental Covenant was placed on the impoundment portion of the property in 2018. The Environmental Covenant formally identifies the ICs and ECs necessary to maintain the remedy in accordance with the final decision. The Environmental Covenant provides the method for maintaining the ECs associated with the Facility.

A file review has identified the following LTS deficiencies associated with the Facility;

1. The Environmental Covenant incorporates the PADEP Permit by reference. The EPA understands the PADEP Permit expired in 2018 and the GWPT system is currently operating under the conditions of the prior permit. The PADEP Solid Waste Management Permit (PADEP Permit; No PAR 000514182) needs to be finalized.

2. The Environmental Covenant includes several activity and use limitations for groundwater at the Facility. However, the Environmental Covenant is limited to the meets and bounds of the impoundment area and not the entire facility. Considering contaminated groundwater extends beyond the impoundment area, there is currently no mechanism in place to enforce activity and use limitations associated with groundwater beyond the impoundment area.

Long-term Stewardship Site Visit:

The EPA, PADEP, and Mount Joy Wire Corporation with their environmental contractor (GHD) coordinated a Facility visit on June 14, 2022. The purpose of the EPA visit was to conduct the LTS. The PADEP was onsite to conduct a groundwater monitoring evaluation (GME) inspection. GHD was onsite to perform GWPT monitoring activities.

The attendees were:

Name	Organization	Email Address
Jeff Christopher, P.G.	EPA Region 3	Christopher.Jeffrey@EPA.gov
Kelly Lee Kinkaid, P.G.	PADEP	kkinkaid@pa.gov
Matt Graham	Mount Joy Wire	mgraham@mjwire.com
Rob Muschlitz	Mount Joy Wire	
Bryan Foulke	GHD	Bryan.Foulke@ghd.com
Zachary Boston	GHD	zachary.boston@ghd.com

At the time of the LTS, EPA evaluated the status and protectiveness of the ICs and ECs as outlined below.

Institutional Controls (ICs):

The following ICs are identified in the Environmental Covenant placed on the property:

- *Groundwater Use Restriction:* Groundwater at the Property shall not be used for any purposes except for continued operation of the GWPT system and the associated maintenance and monitoring activities required by EPA or the PADEP.
- *Residential Land Use Restriction:* The Property is restricted to non-residential use.
- *Soil Management Plan / Earth-Moving Restriction:* All earth moving activities at the Property, including excavation, drilling, and construction activities, shall be conducted in a manner such that the activity will not pose a threat to human health and the environment or adversely affect or interfere with the Soil Waste Permit No. PAR 000514182.
- *Well Drilling Restriction:* No new wells can be installed at the Property.
- *General Land Use Restriction:* The property shall not be used in any way that will adversely affect or interfere with the integrity and protectiveness of the impoundment cap, the groundwater monitoring system, or the groundwater abatement system.

The LTS identified the following deficiencies associated with ICs at the property.

1. As previously noted, groundwater contamination extends beyond the footprint of the portion of the property covered by the environmental covenant. Groundwater use and well drilling restrictions do not cover the extent of groundwater contamination associated with the Facility.
2. Monitoring offsite groundwater use and new water supply well installations is not an IC listed on the Environmental Covenant. However, it was apparent that portions of the vicinity surrounding the Site

have undergone redevelopment from the time when the Environmental Covenant was placed on the Property. To evaluate if changes in land use at properties in the surrounding vicinity have created new exposure pathways or hydraulic influence on the groundwater plume, the EPA requested that the contractor update the offsite well receptor survey to evaluate if new water supply wells have been installed in the surrounding vicinity. A response from the contractor is pending.

Engineering Controls (ECs):

The following ECs are currently associated with the property.

- *Groundwater Treatment System:* A groundwater pump and treat (GWPT) remedial system is currently in operation to maintain hydraulic control of the groundwater plume. The extracted groundwater is beneficially used at the facility for process water where it is treated and discharged in accordance with an NPDES permit. Operation, maintenance, and monitoring requirements of the GWPT are outlined in the expired PADEP Permit.
- *Vegetative Cap & Security Fence:* The impoundment area contains a vegetative cap and perimeter fence.

The LTS revealed the following deficiencies associated with the engineering controls:

1. As noted above, the PADEP Permit outlining GWPT operation, monitoring, and maintenance obligations has expired. The GWPT system is currently operating under the conditions of an expired permit.
2. The GWPT was shut down in the first or second quarter of 2022 for an approximately 2-week period so the well pump in extraction well WQMP-4A could be replaced. The PADEP Permit requires continuous pumping of well WQMP-4A at a rate of 40-50 gallons per minute (gpm) to maintain hydraulic control of the groundwater plume. As indicated in the Environmental Covenant any noncompliance of activity and use limitations, where the PADEP permit is referenced, shall include notifications to the PADEP and/or EPA. It is currently unclear if the PADEP or EPA was notified of the system shutdown.

The EPA requests that the Facility evaluate if downgradient water supply well receptors have been impacted by groundwater contamination considering hydraulic control of the plume was not maintained for the approximate two-week period.

3. Operation of the GWPT system is conducted every day, 24-hours a day, except for two company holidays. On the holidays, the GWPT is either shutdown or flowrate reduced to below 40 gpm. The PADEP permit requires continuous operation of the GWPT system at designated flow rates. The EPA will require that the GWPT system remain in operation as required by the PADEP Permit, and that any deviations associated with temporary system shutdowns for holidays be incorporated into future permit renewals and consider how non pumping conditions can create exposures in offsite supply wells.
4. The impoundment cap and fencing appear to be maintained as designed. However, there are two depressions located adjacently west southwest of the impoundment, on portions of the Facility outside of the Environmental Covenant deed restricted area. The depressions are likely related to

bedrock geology and karst conditions¹. The EPA recommends that the Facility monitor or repair the depressions to avoid adverse geotechnical conditions that have the potential to undermine the impoundment. The EPA requests that future monitoring or repair of the depressions be documented and provided for regulatory review in future compliance reporting.

Financial Assurance (FA):

The EPA reviewed Financial Assurance (FA) obligations associated with the Facility. The Facility is required to update the FA cost estimate (and associated mechanisms if needed) on an annual basis. However, the Facility has not updated their cost estimate and corresponding financial assurance mechanisms as needed since 2015. The current mechanism, a Letter of Credit, is in the amount of \$251,200.00. Cost estimates were updated in 2016 (to \$256,244) and 2019 (to \$471,300) but no corresponding mechanism updates were submitted. Based on this observation the EPA and PADEP have requested the Facility submit updated cost estimates for the missing years since 2019, as well as updated mechanism paperwork to match the new most current cost estimate. As of July 26, 2022, the corresponding PADEP Regional Office received, and is currently reviewing, the mechanism paperwork submitted by the Facility.

Reporting Requirements:

GHD, on behalf of National Standard, LLC, submits a Post-Closure Groundwater Monitoring Report on an annual frequency. The most recent report is dated October 14, 2021. The next report is anticipated for October 2022.

Documents Reviewed:

PADEP Permit (PADEP Permit ID No. PAR000514182), PADEP, August 2008
Statement of Basis, EPA, August 2016
EPA Permit (EPA ID No. PAR 000 514 182), September 2016
Final Decision and Response to Comments, EPA, September 2016
Class I Permit Modification, PADEP Permit (PADEP Permit ID No. PAR000514182), PADEP, November 2017
Environmental Covenant, November 2018
Third Quarter 2021, Post Closure Groundwater Monitoring Report, GHD, October 18, 2021

¹ The Pennsylvania Department of Conservation and Natural Resources has mapped numerous karst features (depressions and sinkholes) at the Facility and in the surrounding area.



Figure 1. Aerial imagery from October 2019 showing the Mount Joy Wire Corporation property in Mount Joy, PA (Google Earth).

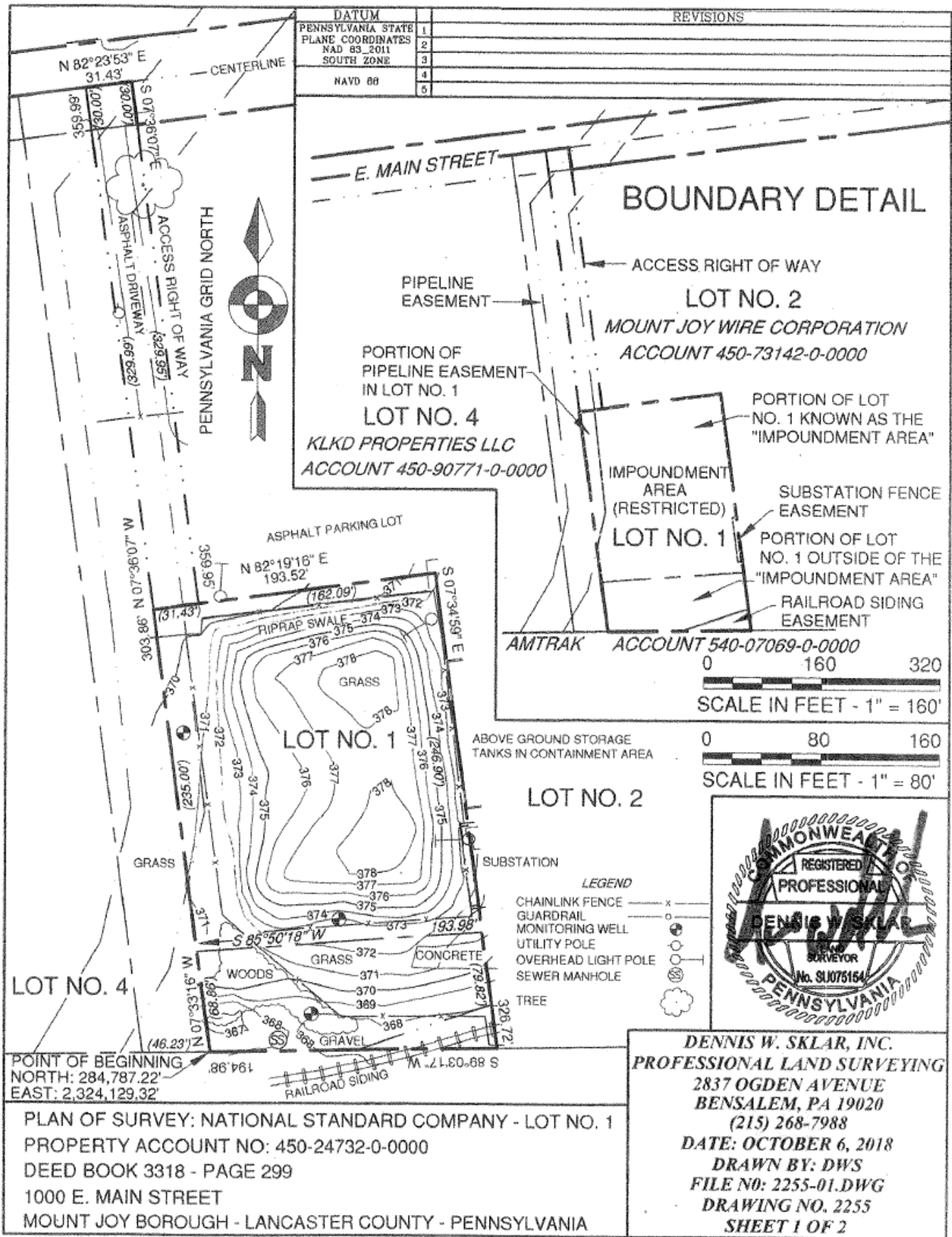


Figure 2. Map showing the area included in the Environmental Covenant.

Institutional Control/Engineering Control
 Corrective Action Remedy Summary

Facility Name				
Address				
EPA ID Number				
Are there restrictions or controls that address:	Yes	No	Area(s)	Description of restrictions, controls and mechanism
Groundwater Use				
Residential Use				
Excavation				
Vapor Intrusion				
Capped Area(s)				
Other Engineering Controls				
Other Restrictions				