
SUPPLEMENTAL BUILDING 1 REMEDIAL INVESTIGATION WORK PLAN TACONIC SITE

Prepared For:



Taconic, Inc.
136 Coonbrook Road
Petersburgh, New York 12138

NYSDEC Site No. 442047

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LIST OF ACRONYMS

CAMP	Community Air Monitoring Plan
COPC	Contaminant of Potential Concern
CSM	Conceptual Site Model
DO	Dissolved Oxygen
ELAP	Environmental Laboratory Accreditation Program
FSAP	Field Sampling and Analysis Plan
GPS	Global Positioning System
HASP	Health and Safety Plan
IDM	Investigation Derived Material
IID	Interim Investigation Deliverable
NTU	Nephelometric Turbidity Units
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
ORD	Oxidation-Reduction Potential
PFAS	Poly and Per Fluorinated Alkyl Substance
PTFE	Polytetrafluoroethylene
PVC	Polyvinyl Chloride
QAPP	Quality Assurance Project Plan
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
Site	Taconic Site
Taconic	Tonoga, Inc. d/b/a Taconic
Town	Town of Petersburg
VOC	Volatile Organic Compound

1.0 INTRODUCTION

Tonoga, Inc. d/b/a Taconic (Taconic) has prepared this Supplemental Building 1 Remedial Investigation (RI) Work Plan for the Taconic Site (Site) located in the Town of Petersburg (Town), Rensselaer County, New York. The Remedial Investigation/Feasibility Study (RI/FS) is being conducted in accordance with the requirements of the Administrative Settlement Agreement and Order on Consent (Index No. CO 4-20160519-01) (Settlement Agreement) executed between the New York State Department of Environmental Conservation (NYSDEC) and Taconic, with an effective date of November 20, 2016. The Site is listed on the New York State Registry of Inactive Hazardous Waste Disposal Sites as a Class 2 site (Site No. 442047).

1.1 Project Objectives and Scope

A phased investigation approach was established in the RI/FS Work Plan (OBG 2018) and approved by the NYSDEC. As described in the Interim Investigation Deliverable (Parsons 2020), elevated concentrations of Poly and Per Fluorinated Alkyl Substances (PFAS) were detected in the Building 1 Area, particularly in the vicinity of Former Outfalls 003 and 004. This supplemental Building 1 Work Plan describes additional remedial investigation activities proposed for the Building 1 area intended to better define the nature and extent of contamination in this area and to assess the potential for off-site migration by surface water and storm water. Although other contaminant migration pathways, such as groundwater, from this area may exist, they are currently under investigation and will be further evaluated within Phase 2 of the RI. Upon the evaluation of the data collected as described in this supplemental Work Plan, as well as the data collected under Phase 2 of the RI, Interim Remedial Measures (such as source removal and control) may be further evaluated for the Building 1 Area as appropriate. Supplemental RI activities and analysis for the Building 1 area will be performed in accordance with the Field Sampling and Analysis Plan (FSAP), Quality Assurance Project Plan (QAPP), Health and Safety Plan (HASP), and Community Air Monitoring Plan (CAMP), except as noted in this plan. These plans were previously submitted to and approved by NYSDEC.

1.2 Site Description

Taconic owns a facility in Petersburg, New York where it manufactures polytetrafluoroethylene (PTFE) coated fabrics. The Site is in a rural area, at the northernmost intersection of Coonbrook Road and State Route 22. The Site is a 23.54-acre area that features nine structures related to manufacturing and three parking lots. There is an unnamed stream that runs through the Site and another running south of the Site. The Site is currently an operating manufacturing facility. The surrounding parcels (some of which are owned by Taconic) are residential or undeveloped. The Little Hoosic River runs south to north on the opposite side of Route 22 from the Site.

This supplemental remedial investigation will be conducted in the vicinity of Building 1, located on the north side of Coonbrook Road, at the intersection with Russell Road.

1.3 Project Background

Taconic completed Phase 1 of the Remedial Investigation in October 2019. The objectives of Phase 1 were to begin to define the nature of contaminants of potential concern (COPCs), evaluate the extent of COPC impacts in environmental media (e.g., groundwater, surface water, and soil), and develop a preliminary conceptual site model (CSM).

Phase 1a, conducted between April and September 2018, consisted primarily of sampling and analysis of various environmental media, such as surface soil, subsurface soil, surface water and sediment. Based on the results of the Phase 1a RI, Taconic implemented Phase 1b of the RI between April and October 2019, consisting primarily of the installation and testing of groundwater monitoring wells. The results are summarized in the Phase I Interim Investigation Deliverable (IID), which was submitted to NYSDEC on February 28, 2020 and approved on September 8, 2020. The Phase 1 results served as the basis for the additional investigations for Phase 2 of the RI described in the Supplemental Work Plan Phase 2A Remedial Investigation (Phase 2A Work Plan (Parsons 2020)).

The Phase 2 RI is currently underway and is intended to complete the requirements of an RI as described in *DER-10/Technical Guidance for Site Investigation and Remediation* (NYSDEC 2010). The objective of the Phase 2 RI is to expand the sampling and analysis of environmental media within the site and adjacent off-site areas to better define the potential source areas, migration pathways, and the nature and extent of the compounds at or emanating from the Site. Phase 2a is currently underway and additional phases will be planned and implemented as necessary to complete the RI.

Phase 2a status is summarized, as follows:

- Soil sampling and surface water sampling was conducted in November 2020
- Surface geophysical profiling was conducted in November 2020
- Monitoring well gaging was conducted in December 2020
- Overburden monitoring well installation was conducted in January 2021
- Monitoring well and stream elevation gauging was conducted in May 2021
- Surface water and sediment sampling was conducted in May 2021
- Overburden well monitoring sampling was conducted in May 2021
- Bedrock groundwater assessment is in progress and the following activities have been completed:
 - Initial monitoring well drilling was completed in January 2021
 - Initial borehole geophysics and groundwater sampling was completed in May 2021
 - Initial packer testing of select fracture intervals of MW-20BR, MW-22BR, and MW-23BR was conducted in June 2021.
- Additional surface water, soil, and groundwater sampling will be conducted later in 2021.
- Taconic will prepare and submit additional work plans to the NYSDEC as needed to complete the RI.

2.0 CONTACTS

Key contact information for NYSDEC, New York State Department of Health (NYSDOH), and Taconic is provided below:

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3.0 SCOPE OF WORK

This supplemental work plan is intended to further define the nature and extent of potential COPC source areas in the Building 1 area to facilitate the evaluation of potential IRMs for this area while the broader RI activities are underway in other on- and off-site areas. Previous sampling activities completed in the vicinity of Building 1 are summarized in the Phase I IID (Parsons 2020)

The scope consists of the following elements, as provided in more detail in the below sections:

1. Further investigate overburden soil around Building 1
2. Further investigate overburden groundwater around Building 1
3. Characterize potential upgradient stormwater than runs into the drainage swale to the north of Building 1

Investigation-Derived Materials (IDM) (including soils, decontamination water, and debris) from investigation activities will be managed in accordance with the FSAP.

3.1 Building 1 Soil

To further delineate the extent of soil impacts within the vicinity of Building 1, a total of nine soil borings (denoted SB-12 through SB-20) will be advanced, as shown in **Figure 1**. The soil borings will be advanced using direct-push methods using 4-foot-long Macro-core® samplers in accordance with ASTM Method D6282, to a depth of refusal or to the groundwater table, whichever is shallower. At locations where monitoring wells will be installed, the soil boring will be advanced to refusal to confirm soil and groundwater conditions and to determine well depth placement.

Soils from retrieved Macro-cores® will be visually examined and described in the field in accordance with the FSAP. Headspace readings of the retrieved cores will not be taken as significant concentrations of Volatile Organic Compounds (VOCs) have not been detected on site. Composite soil samples will then be collected from continuous 2-foot intervals from the surface to the bottom of the soil boring. The collected soil samples will be managed and handled in accordance with the QAPP and submitted to a NYSDOH Environmental Laboratory Accreditation Program (ELAP)-certified laboratory under standard chain-of-custody procedures for analysis of PFAS.

Upon completion, soil borings which are not converted into monitoring wells will be backfilled using the procedures outlined in the FSAP.

3.2 Building 1 Overburden Groundwater

Supplemental groundwater investigation activities will be completed within the vicinity of Building 1 to better understand the relationship between shallow groundwater and surface/storm water in the adjacent drainage swale, as shown in **Figure 1**.

After completion, three of the soil borings (specifically SB-12, SB-17, and SB-19) will be converted into monitoring wells MW-24, MW-25, and MW-26, respectively. Should groundwater not be encountered at these locations to refusal depth, an alternative boring location will be selected in coordination with the NYSDEC for installation of a monitoring well.

Each well will be constructed using pre-packed monitoring well screens, in a similar manner to previously completed well location MW-4. Each well will be completed with 1½-inch diameter, 0.010 slot prepacked

polyvinyl chloride (PVC) well screens, with additional filter sand (as needed) placed within the annular space from the bottom of the well to approximately 1 to 2 feet above the top of screen. The remainder of the annular space will be grouted with hydrated bentonite seal followed by cement-bentonite grout to the ground surface. Should shallow installation preclude the minimum filter sand or bentonite installation thicknesses, alternate construction methods will be discussed with the NYSDEC.

Following completion, monitoring wells will be developed in accordance with the FSAP to remove the fine material which may have settled within the wells and to provide better hydraulic communication with the surrounding formation. After allowing the grout to set for a minimum of 24 hours, well development can begin. Development will consist of surging and purging the well until water is clear, when field measured turbidity values are below five Nephelometric Turbidity Units (NTUs) and/or turbidity values have stabilized, or when 10 volumes are removed. In the event of low yielding wells, development of those wells will consist of purging dry three times over three consecutive days or less. During well development, pH, temperature, dissolved oxygen (DO), oxidation-reduction potential (ORP), turbidity and specific conductance will be measured and recorded after each well volume. After allowing 72 hours for the aquifer and the well to re-equilibrate groundwater sampling can begin.

Following development and when groundwater levels return to near-static conditions, water level measurements will be obtained of the newly installed monitoring wells and nearby existing shallow wells (i.e., MW-3, MW-4, MW-5S and MW-6S) to help better understand shallow groundwater flow conditions. The three newly installed monitoring wells plus previously installed MW-3, MW-4, MW-5S, MW-6S and MW-7D will be sampled using low-flow sampling techniques as described in the FSAP. Water quality parameters will be measured using a flow-through cell during the low-flow sampling. Measurements of DO, ORP, temperature, pH, specific conductivity and turbidity will be obtained. Groundwater samples will be collected, managed, and handled in accordance with the QAPP, and submitted to a NYSDOH ELAP-certified laboratory under standard chain-of-custody procedures for analysis of PFAS and TOC.

3.3 Building 1 Surface Water

Additional surface water sampling will be completed to identify potential upgradient sources of surface water to the drainage swale located to the north of Building 1. Field reconnaissance activities completed in June 2021 had indicated two potential sampling points where concentrated flow was observed to the drainage swale during run-off periods. The limits of the sampling of the upgradient inputs will be from the beginning of the drainage swale near the southwest of Building 1 to the inlet to the culvert beneath Russell Road as shown in **Figure 1**. In addition, surface water samples will also be collected at the previously sampled locations SW-8, SW-14, and SW-15.

Each sampling location will be documented by a recognizable landmark, with a handheld global positioning system (GPS) unit and marked in the field using survey flagging. Surface water samples will be collected in accordance with the FSAP, facing upstream, from the subsurface water, and collected as near the center of the stream channel as practicable, using clean, dedicated, unpreserved containers provided by the laboratory for each sample. Surface water samples will be collected, managed and handled in accordance with the QAPP, and submitted to a NYSDOH ELAP-certified laboratory under standard chain-of-custody procedures for analysis of PFAS and TOC.

3.4 Health and Safety Plan (HASP)

Work will be conducted in accordance with the HASP, with the following exceptions. Work zone monitoring for VOCs and community air monitoring for VOCs and particulates will not be conducted. Air monitoring activities as described in the HASP is not proposed for the boring and well installation activities since over 80 direct-push and sonic borings have been installed at the facility without any significant detections of dust or VOC emissions.

3.5 Documentation and Reporting

Field activities will be documented and described in a field log. Stratigraphic logs from soil borings and well construction logs from monitoring well installation will be prepared. Surface water and groundwater sampling logs will also be prepared. All logs will be completed in accordance with the procedures described in the FSAP.

The Building 1 supplemental remedial investigation documentation and results will be incorporated into the Phase 2a IDD.

4.0 SCHEDULE

Initial field work will be performed in mid-August 2021, with all sampling complete by mid-September 2021, contingent upon contractor availability.

5.0 REFERENCES








Remedial Investigation/Feasibility Study Work Plan, Taconic Site, O'Brien & Gere, April 9, 2018.

Interim Investigation Deliverable, Parsons. February 2020.




FIGURES



EXISTING SAMPLE LOCATIONS

-  Surface Soil Sample
-  Surface Water Sample
-  Sediment Sample
-  Groundwater – DPT Sample
-  Soil – DPT Sample
-  ASP Location
-  Monitoring Well

PROPOSED SAMPLE LOCATIONS

-  Proposed Direct-Push Boring Location
-  Proposed Pre-Pack Monitoring Well
-  Surface Water Location to Re-Sample

NOTES:

- 1) DPT borings to be advanced to refusal or to the groundwater table, whichever is shallower.
- 2) Composite soil samples to be collected from each 2-foot interval to the bottom of the boring.
- 3) Pre-pack monitoring wells similar to the MW-4 installation to be installed at the 3 locations shown.
- 4) Soil, surface water, and groundwater samples to be analyzed for NYSDEC list of 21 PFAS constituents.



SCALE: 1"=40'

FIGURE 1

TACONIC
REMEDIAL INVESTIGATION
BUILDING 1 POTENTIAL SOURCE AREA

PARSONS

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COLLECT SURFACE WATER
SAMPLES FROM SEEPS AND
DRAINAGE IN UPGRADE AREAS

