FEBRUARY 2020

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

New York State Department of Environmental Conservation

Division of Environmental Remediation

Rando Machine Corporation Site Monitoring Program

Site Number 859014

Periodic Review Report

(October 29, 2019 through February 28, 2020)

D&B Engineers and Architects, P.C.

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EXECUTIVE SUMMARY

Category	Summary/Results
Site Classification	The site is currently classified as Class 4 Inactive Hazardous Waste site.
Site Management Plan	The Revised Monitoring and Maintenance Plan is dated July 1999 (certified 2018).
Site History	• Voluntary Source Removal IRM, 1989. • RI/FS Work Plan, 1990. • Order on Consent, 1990. • Remedial Investigation Report, 1992. • RI/FS Work Plan Addendum, 1992. • RI Report Addendum, 1993. • Revised Feasibility Study, 1995. • Proposed Remedial Action Plan, 1995. • Revised Feasibility Study Addendum, 1996. • Revised Proposed Remedial Action Plan, 1998. • Record of Decision, 1998. • Order on Consent, 1999. • Revised Monitoring and Maintenance Plan, 1999. • Sub-Slab Depressurization Completion Report, 2013.
Engineering Controls	• Vapor Mitigation (Sub-Slab Depressurization System Installed March 2013).
Institutional Controls	Environmental Easement which includes: • Maintenance and Monitoring Plan; • Groundwater Use Restriction; • Land-use Restriction; • O&M Plan; and • IC/EC Plan.
Certification/Reporting Period	The Certification Period is Annual. This Periodic Review Report (PRR) covers the time frame from October 29, 2019 through February, 28 2020. The next Periodic Review Report will cover the period of March 2020 through February 2021.
Prior PRR/SMR Recommendation	A Site Management PRR Notice for this Site was prepared for the period of January 5, 2016 to January 5, 2017 and transmitted to the NYSDEC in a letter dated May 31,2017. No recommendations were noted.
Routine Site Management Activities	One round of groundwater level measurements was collected during this reporting period from three monitoring well locations. A Site inspection was conducted on October 29, 2019 and October 30, 2019. Groundwater sampling was conducted on October 30, 2019 with samples collected from three well locations. Samples were analyzed for volatile organic compounds (VOCs) using USEPA Method 8260C.

Non-routine Site Management Activities	Three existing monitoring wells and one new temporary monitoring well were sampled for emerging contaminants. Two 1-inch temporary groundwater well monitoring points were installed adjacent to existing monitoring well B103-OW-and B205-OW-C (designated as PZ-103 and PZ-205, respectively). Monitoring well B205-OW-C and PZ-205 were decommissioned. One exhaust fan was replaced, and additional pressure field extension testing was conducted on the sub-slab depressurization system.
Trend Analysis	Historical sampling results for VOCs are presented in Table 1. A summary of the 2019 sampling results relative to the Standards, Criteria and Guidance (SCGs) are presented in Table 2 (VOCs) and Table 3 (PFAS and 1,4-dioxane).
Significant Findings or Concerns	The results of the October 2019 groundwater sampling event indicated that contaminants of concern (1,1,1 Trichloroethane, 1,1-Dichloroetane, 1,1-Dichloroethene) were detected at concentrations exceeding the NYSDEC Class GA Groundwater Standards in the three monitoring wells. 1,4 Dioxane and PFAS were detected in groundwater samples exceeding screening criteria.
Cost Evaluation	The total cost of the site management activities during this reporting period was $28,809.67 This cost includes engineering and subcontractor costs (e.g., laboratory, equipment, rentals, etc.) expended by D&B. It should be noted that this total does not include any costs incurred by the NYSDEC or prior consultant in support of the project.
Recommendations	Conduct annual sampling in the third quarter of 2020.

1.0 INTRODUCTION

This Periodic Review Report (PRR) report covers the period from October 29, 2019 through February 28, 2020. To monitor for continued performance of the Site remedy, the NYSDEC issued a work assignment to D&B Engineers and Architects, P.C. (D&B) in August 2019 under D&B's State Superfund Standby Contract. This assignment transferred responsibility of the Site management activities to D&B, beginning in the third quarter of 2019. During this reporting period, a Site inspection and a groundwater monitoring event was completed in October 2019 that included routine and non-routine groundwater sampling (PFAS and 1,4-dioxane). In addition, two non-routine site visits were conducted in January and February 2020, consisting of installation of two temporary groundwater monitoring wells, groundwater sampling for 1-4-dioxane, monitoring well decommissioning, and maintenance and monitoring associated with the sub-slab depressurization (SSD) system. Portions of this report include pertinent historical background information and monitoring data from the following reports:

- Record of Decision (March 1998)
- Revised Maintenance and Monitoring Plan (July 1999)
- Sub-Slab Depressurization System Construction Completion Report (May 2013)
- IC/EC Certification Letter Report (May 2017)
- Groundwater Monitoring Letter report (December 2017)
- Analytical Data Packages (**Appendix A**)

The objectives of this PRR include:

- Presenting a summary of pertinent background information;
- Identifying the cleanup goals established for the Site;
- Presenting a brief description of the remedy and remaining contamination;
- Identifying, reviewing and evaluating:
  - Site monitoring protocols, procedures and documentation;
  - Condition of the remedy;
  - Compliance with the ROD and the SMP;
  - Current institutional and engineering controls;
  - Site management costs;
  - Remedy performance, effectiveness and protectiveness; and
  - Supporting decisions/providing justification to modify or end Site management activities, reclassify the
- Site, or delist the Site;
- Determining the frequency and type of subsequent periodic reviews;
- Providing an institutional control and engineering control (IC/EC) certification.

1.1 Site Description and Project Background

The Rando Machine Corporation (Rando) site (the Site) is located in a suburban portion of Wayne County on Route 31, just west of the Village of Macedon. The Site is approximately 5 acres in size and located in a 60-acre industrial park known as The Commons (**Figure 1**). The site is primarily occupied by a one-story industrial structure (approximately 35,000 square foot). The remainder of the property is a combination of pavement and landscaped/grass areas. The surrounding parcels to the north, south, and west are used for a combination of light industrial and commercial purposes, and agricultural purposes (farmed field) to the east. A regulated Class III wetland is located approximately 0.25 miles north. The Barge Canal is located approximately one mile north of the Site.

Rando manufactured and assembled industrial machines from approximately 1975 through September 2019. The machines were cleaned, painted, packaged and shipped from the facility. The cleaning and painting process utilized the chlorinated solvent 1,1,1-trichloroethane (TCA). Between the early 1970s and mid-1980s, floor drains from the TCA storage area reportedly drained into a buried container, also called a dry crock, located immediately outside the northeast corner of the building (**Figure 1**). During its past operation, contents of the dry crock were reportedly removed for off-site disposal. Rando's use of the chlorinated solvent TCA in the cleaning and painting process is what appears to have led to site contamination through storage in a dry crock at the northeast corner of the Site building.

The Village of Macedon operated a well field as a source of public water approximately 0.25 miles north-northeast of the Site. Analytical results from a NYSDOH sampling event conducted in 1986 at the Village of Macedon municipal water supply Well #2 detected TCA, an industrial degreaser, that led to the investigation at the Site. As a result of the contamination observed at Well #2, the Village of Macedon immediately stopped the use of this well and the adjacent municipal water supply Well #1 as a source of public drinking water and began purchasing part of its drinking water from the Monroe County Water Authority.

1.2 Summary of Remedial Activities

As indicated above, analytical results from a NYSDOH sampling event conducted in 1986 at a Village of Macedon municipal water supply well led to the investigation at the Site. A preliminary investigation conducted by the NYSDEC in 1987 identified Rando as a potentially responsible party with the dry crock as the likely source of the TCA contamination. In 1988, Rando conducted a soil vapor survey. It was determined that the volatile organic compound (VOC) groundwater plume extended beyond the Site's eastern boundary towards the Village of Macedon wellfield.

In 1989, Rando conducted a subsurface investigation consisting of the installation of groundwater monitoring wells. The results of this investigation confirmed that the dry crock was the source of the TCA contamination. Additional VOCs, including 1,1-dichloroethane (1,1-DCA) and 1,1-dichloroethene (1,1-DCE) were also detected in groundwater near the dry crock. As a result, Rando conducted a voluntary source removal under NYSDEC observation in 1989. Post excavation soil sampling from the source area did not indicate soil contamination.

Remedial investigation (RI) activities were conducted at the Site from 1991 through 1993. A RI/FS was approved in 1995, and a Proposed Remedial Action Plan (PRAP) was issued by the NYSDEC in 1995. Based on the Village of Macedon reiterating its decision not to reopen the wellfield as a source of public water, Rando submitted an FS Addendum in 1996. The DEC did additional groundwater sampling in January of 1997 which showed groundwater contaminant levels had decreased. The Record of Decision (ROD) was subsequently issued by the NYSDEC in March 1998.

The NYSDEC selected Alternative 1 (no further action) as the remedy for the Site as presented in the 1998 ROD. As part of Alternative 1, periodic groundwater monitoring (semi-annual for five years and annual thereafter) would be conducted from selected groundwater monitoring wells. In addition, the remedy required administrative controls be placed on the Site property to restrict public access to contaminated groundwater.

A Maintenance and Monitoring Plan (M&M Plan) was prepared for the Site in July 1999. The IC/EC letter report dated May 31, 2017, identified that Declarations of Covenants and Restrictions to restrict public access to contaminated groundwater was filed with Wayne County on December 23, 2009.

On April 1, 2013, a SSD system was installed beneath the Site building to encompass the entire footprint of the Site building as outlined in Mitigation Tech's May 20, 2013 construction completion letter report. Based on a review of select correspondence between NYSDEC and Rando, it appears the SSD system was installed in lieu of evaluating the Site in accordance with the NYSDOH's "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (2006). Although not included in the M&M Plan, this PRR also includes a performance evaluation and operation and maintenance recommendations for the installed SSD system.

1.3 Regulatory Requirements/Cleanup Goals

As presented in the ROD, the goals for this Site are to:

- mitigate all significant threats to the public health and to the environment posed by contaminated groundwater at the site; and
- provide for attainment of SCGs for groundwater quality at the limits of the area of concern, to the extent practicable.

1.4 Residual Contamination

Based on the 2019 groundwater monitoring results, residual contamination consisting of TCA, 1,1-DCA and 1,1-DCE remains in the Site groundwater at concentrations exceeding Class GA standards of 5 µg/L, as shown on **Figure 2**. The highest concentrations were observed at the B206 well cluster installed near the former source area. The highest concentration of 1,1,1-TCA was observed at monitoring well B206-OW-B at a concentration of 9.7 µg/L. The highest concentrations of 1,1-DCA and 1,1-DCE were observed in monitoring well B206-OW-C at concentrations of 13 µg/L and 10 µg/L, respectively.

These results are consistent with historical groundwater monitoring results are summarized in **Table 1**.

Since residual chlorinated VOC contamination remains within the Site at concentrations greater than applicable NYSDEC Class GA Groundwater Standards, Site inspections and groundwater sampling should continue as specified in the M&M Plan to ensure there are no future adverse impacts to public health and/or the environment.

2.0 MONITORING PLAN COMPLIANCE

The monitoring scope for the Site as specified in the M&M Plan includes annual Site inspections and annual groundwater sampling. Presented below is a summary of the monitoring activities performed throughout this reporting period, as well as an evaluation of Site-related data relative to remedy performance, effectiveness and protectiveness, as appropriate. The observations of the D&B inspection, performed during the October 2019 Site inspection and sampling, are presented below.

2.1 Site Inspection

A Site inspection was conducted by D&B during the October 2019 Site visit and in general conformance with the M&M Plan. Details of the 2019 field activities are provided in **Appendix B** and summarized below.

All four of the remaining monitoring wells were observed to be damaged to varying degrees. The metal casing and polyvinyl chloride (PVC) riser at on-site monitoring well B206-OW-C were broken at and below the ground surface, respectively. The hinge for the metal casing lid at on-site monitoring well B103-OW-A was broken, allowing the lid to swing freely and thus was not secure. Off-site monitoring well B205-OW-C was unusable and damaged beyond repair. This well is in the farm field adjacent to the Site to the East and was surrounded by corn that was over 8-feet tall. The 8-inch metal casing, surface completion (roadway box) and associated concrete were not observed, and a fence post was placed in the PVC riser that was broken off approximately 1-foot below surrounding grade in the center of a 6-foot wide depression. Monitoring well B205-OW-C was scheduled to be decommissioned following this sampling event using the grout-in-place method.

In addition to the Site inspection activities associated with the monitoring wells, D&B performed an annual inspection of the SSD system installed at the Site for general conformance with the performance monitoring outlined in Mitigation Tech's May 20, 2013 construction completion letter report. The purpose of the inspection was to document the operation of the five independently operated SSD system installed at the facility in April 2013. Details of the October 2019 SSD system inspection are provided as Exhibit 1 in **Appendix B**.

The exhaust fan for the Engineering Office/Print Room system was not operating at the time of the inspection. Additionally, the vacuum indicator gauge on the PVC riser piping in the Manufacturing East Column Row system indicated 0.00 wci of pressure.

It was not clear at the time of the inspection if the gauge to the Manufacturing East Column Row system was malfunctioning or if there was no vacuum within the SSD system; however, the roof top exhaust fan was observed to be working. It was also observed that two of the oil-filled U-tube manometers had been replaced by Magnahelic dial gauges, which may indicate that those oil-filled U-tube gauges failed as well.

The sub-slab vacuum monitoring results from October 2019 indicated that the system is not effectively reaching its goal of negative 0.002 water column inches (wci) of pressure throughout the entirety of the building sub-slab.

2.2 Non-Routine Site Management Activities

Non-routine Site management activities conducted during this reporting period included groundwater sampling for emerging contaminants in October 2019; installation of two temporary groundwater monitoring wells, groundwater sampling for 1-4-dioxane, and decommissioning of groundwater monitoring well B205-OW-C in January 2020; and maintenance and monitoring of the SSD system and decommissioning of temporary groundwater monitoring well PZ-205 in February 2020. Groundwater sampling results are discussed in Section 2.3, below.

Historical groundwater analytical results from monitoring well B205-OW-C, located east of the Site in the adjacent farm field, were consistently below NYSDEC Class GA Standards for Site contaminants of concern (see **Table 1**). As a result, monitoring well B205-OW-C was decommissioned using the grout in place method on January 15, 2020. The well decommissioning record for this well is provided in **Appendix C**.

Emerging contaminant sampling was conducted from B103-OW-A in October 2019, however this well is screened from 45.9 to 56.3 feet bgs and may not be representative of shallow groundwater. Monitoring well B205-OW-C was observed in October 2019 to be damaged and could not be sampled. As a result, on January 15, 2020, two 1-inch temporary groundwater well monitoring wells were installed adjacent to existing monitoring wells B103-OW-A and B205-OW-C (designated as PZ-103 and PZ-205, respectively). The temporary groundwater wells were screened from 15 to 25 feet below ground surface (bgs). The purpose of these temporary wells was to collect shallow groundwater samples for 1,4-dioxane.

Groundwater was subsequently sampled from PZ-205 and analyzed 1, 4 Dioxane by USEPA Method 8270D GC/MS SIM. No water was observed in PZ-103 on that day.

Additional non-routine Site activities performed on February 7, 2020 consisted of the replacement of the exhaust fan associated with the Engineering Office/Print Room system, conducting pressure field extension testing, and decommissioning temporary monitoring well PZ-205 located in the farm field. Details of the February 2020 field activities are provided in **Appendix D** and summarized below.

On February 7, 2020, D&B decommissioned temporary monitoring point PZ-205 that was installed on January 15, 2020 under the observation of the NYSDEC. PZ-205 consisted of a 1-inch (ID) PVC

well that was screened from 15- to 25-feet below ground surface. A funnel was attached to the top of the riser and Enviroplug Medium sodium bentonite chips were slowly added to the top. The PVC riser was broken off at ground surface and disposed of offsite. The well decommissioning record for temporary monitoring well PZ-205, is provided in **Appendix D**.

While on Site on February 7, 2020, Mitigation Tech replaced the exhaust fan associated the Engineers Office/Print Room that was previously not operational. The exhaust fan is located on the roof and was replaced with the same model (RadonAway HS 5000).

Following replacement of the exhaust fan, Mitigation Tech, NYSDEC, and D&B inspected the vacuum indicator gauges of all five independent SSD systems. Negative pressures were observed at all SSD systems and recorded on the inspection sheet included in **Appendix D**.

Mitigation Tech conducted a pressure field extension test at 10 of 17 monitoring points under the observation of NYSDEC and D&B. Several monitoring points were not located and two had water accumulated on them as a result of a leaking roof. Mitigation Tech collected pressure readings using a digital pressure gauge. The hose from the digital pressure gauge was wrapped with closed cell foam backer rod and inserted into the monitoring point in the floor. Negative pressures were observed at every monitoring point tested, greater than negative 0.002 wci, and results are provided in Mitigation Tech's February 8, 2020 letter, included in **Appendix D.**

2.3 Groundwater Sampling and Analysis

Groundwater sampling events were completed by D&B at the Site on October 30, 2019 and January 15, 2020 during this reporting period. A summary of recent analytical data relative to SCGs is presented in **Table 2** (VOCs) and **Table 3** (PFAS and 1,4-dioxane).

Groundwater samples were collected from the three existing Site monitoring wells on October 30, 2019 using a peristaltic pump and in general conformance with USEPA Low Flow-Low Purge Sampling protocol. Prior to sampling, water levels in the three wells were recorded and are in **Table 4**. Field parameters including pH, specific conductivity, temperature, turbidity, oxidation-reduction potential (ORP), and dissolved oxygen were measured during well purging using a flow-through cell system and recorded on the individual groundwater sampling record until the parameters had stabilized.

The collected groundwater samples were sent to Eurofins Test America, a NYSDEC-approved analytical laboratory, under standard chain-of-custody protocols. The October 2019 samples were analyzed for TCL VOCs using USEPA Method 8260B, 1,4-Dioxane using USEPA Method 8270D, and PFAS (Standard List). The groundwater samples collected in January 2020 were analyzed for1,4 dioxane using USEPA Method 8270D. Analytical Data packages for environmental samples collected during this reporting period are provided in **Appendix A**.

2.3.1 VOC Results in Groundwater

- Several contaminants of concern were identified above the NYSDEC Class GA Standard in samples collected in October 2019, as summarized in Table 1. Monitoring well B206-OW-B

exhibited the highest concentration of TCA at 9.7 µg/L. Monitoring well B206-OW-C exhibited 1,1-DCA and 1,1 DCE at concentrations of 13 µg/L and 10 µg/L, which was the maximum concentration detected for these constituents. These sample results are consistent with previous sampling events. For comparison, previous sampling results for each well are shown in **Table 1**.

2.3.2 Emerging Contaminants Results in Groundwater

- PFAS were detected in all three monitoring wells sampled in October 2019. Monitoring well B103-OW-A exhibited Perfluorooctanoic acid (PFOA) at a concentration of 12 ng/l, which was the only detection above NYSDEC screening values for PFAS (see Table 3).

- 1,4-Dioxane was detected in samples collected from monitoring wells B206-OW-B and B206-OW-C at concentrations of 0.35 µg/L and 380E µg/L, respectively. 1,4-Dioxane was detected at the temporary monitoring well PZ-205 installed in January 2020 at concentration of 0.12 J µg/L.

Based on the groundwater data collected to date, residual chlorinated VOC contamination remains within the Site at concentrations greater than applicable NYSDEC Class GA Groundwater Standards. Groundwater sampling should continue for VOCs as specified in the M&M Plan.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN COMPLIANCE

The ROD established the application of administrative controls on the Site property to restrict public access to contaminated groundwater. The engineering controls and/or mechanical systems that have been installed on-site (i.e., the SSD system) is not a component of the original Site remedy presented in the ROD and was installed in 2013. The operation and maintenance of the SSD system is not included in the M&M Plan. The Site management activities specified in the M&M Plan include annual Site inspections; annual groundwater monitoring; and non-routine inspections and/or maintenance, as needed.

3.1 Institutional Controls

The Site is managed as part of New York State's Superfund Program. The Site's inclusion in the Registry as a Class 4 Inactive Hazardous Waste Site acts as an Institutional Control (IC). In addition, Declaration of Covenants and Restrictions were filed with the Wayne County Clerk's office to restrict public access to groundwater.

3.2 Engineering Control

Engineering controls were not a component of the site remedy presented in the ROD. As indicated above, a SSD system was installed by the owner of the Site in 2013.

4.0 COST EVALUATION

The total cost of the site management activities during the reporting period was $28,809.67. This total includes engineering and site management costs associated with the project while under management by D&B. It should be noted that this total does not include any administrative costs incurred by the NYSDEC in support of the project. A review of the site management costs for this reporting period is provided below.

Cost Summary

COST ITEM	Expended	Percent of Total
Engineering Support	$20,288.09	70.4%
Site Management		
Subcontractor	$7,451.94	25.9%
Expenses	$1,069.64	3.7%
TOTALS	***$28,809.67***	

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

- The M&M Plan was in effect for the period from October 29, 2019 through February 28, 2020. The IC operated as intended this reporting period.
- The ECs are not a component of the Site remedy.
- Site and groundwater use are consistent with the restrictions set forth in the ROD.
- The remedy is protective of human health and the environment.
- Per the M&M Plan, sampling events are conducted annually.
- Remediation goals, which pertain to attaining the extent practicable ambient groundwater quality standards, have not been achieved.

5.2 Recommendations

- Groundwater sampling should continue for VOCs, as specified in the M&M Plan. Therefore, the next groundwater sampling and analysis event should be conducted in the third quarter of 2020.
- Since PFOA was detected in groundwater monitoring well B103-OW-A above screening criteria, PFAS should be further assessed and considered a potential contaminant of concern in groundwater.

- ❖ It is recommended a site management plan be prepared to include engineering controls that have been incorporated at the at the Site (i.e., SSD system) and update sampling procedures to current protocol.
- ❖ It is recommended that the PRRs continue to be completed annually to certify the ICs and ECs are in-place, effective and protective of human health and the environment.
- ❖ Monitoring well B206-OW-C that was broken off should be repaired. The riser should be extended, and the surface completion and protective casing should be replaced.
- ❖ The metal casing at Monitoring well B103-OW-A that had a broken hinge on the casing lid should be repaired or replaced.
- ❖ If NYSDEC intends to continue inspection of the SSD system, consider upgrading the monitoring points as described in Exhibit 1 of Appendix B.

6.0 RECLASSIFICATION/DELISTING EVALUATION

The Site's inclusion in the Registry as a Class 4 Inactive Hazardous Waste Site acts as an Institutional Control for the Site. Reclassification is not feasible at this time.

7.0 CERTIFICATION

The Standby Consultant IC/EC certification is provided as **Appendix E.**