

Project Name: 103 North 10th Street, Brooklyn, NY

Project Number: 12EHAZ535K

Site Management Reporting Period: 2022-2023

Inspection Date: August 2, 2023

Inspector and Certifier: Kevin Brussee

Report Submittal Date: August 11, 2023

Report Preparer: Brussee Environmental Corp. on behalf of North 11th Associates LLC

Site Inspection and Certification Letter Report

North 11th Associates LLC hereby submits a Site Management Inspection and Certification Report for the property located at 103 North 10th Street in the Williamsburg section of Brooklyn, New York for the reporting period, 2022 to 2023, pursuant to the Site Management Plan (SMP) that is included in the OER approved Remedial Action Report (RAR), dated December 2017. The Site is identified as Block 2296 and portion of Lot 14 on the New York City Tax Map.

1.0 ENGINEERING CONTROLS

Engineering Controls were employed in the Remedial Action to assure permanent protection of public health by eliminating human exposure to residual materials remaining at the site. The Site has three Engineering Control Systems. Engineering Controls for this property are:

- Composite Cover System;
- Active Sub-Slab Depressurization System; and
- Soil Vapor Barrier System.

Composite Cover System

Cellar Slab – The cellar foundation consists of the following:

- New 5-inch thick concrete slab sealed with an application of Elite Crete Systems E100-PTTM Clear Epoxy sealant and E100-VB5TM Waterborne Epoxy Vapor Barrier.
- Trenches were cut in the new slab to facilitate the installation of the SSDS piping;
- The SSDS pipes were backfilled with a 6-inch layer of 3/8" pea gravel and finished with a 20 mil (polyethylene sheeting) vapor barrier and new concrete, consistent with the existing floor slab.

Slab-on Grade – The slab-on grade portion of the building consists of the following:

- The existing floor slab was left in place, and trenches were cut to facilitate the installation of the SSDS piping;
- The SSDS pipe were backfilled with a 6-inch layer of 3/4" recycled concrete aggregate surrounding the PVC piping and finished with a 20 mil (polyethylene sheeting) vapor barrier and new concrete, consistent with the existing floor slab;
- Joints between the existing floor slab and trenches were sealed with caulking and the entire floor sealed with an epoxy/polymer sealant.

Vapor Barrier System

Contaminated soil vapor was identified beneath the building area. Migration of soil vapor into the building is mitigated with a combination of building slab, active sub-slab depressurization system and vapor barrier. Elite Crete Systems E100-PTTM Clear Epoxy sealant and E100-VB5TM

Waterborne Epoxy Vapor Barrier across entire cellar and ground floor level floor slabs. Elite Crete Systems E100-VB5TM Waterborne Epoxy Vapor Barrier is a two-component epoxy primer system designed to reduce or eliminate out gassing bubbles in concrete and seal out water penetration.

Active/Passive Sub-Slab Depressurization System or High-Volume Air Exchange, etc.

Slab-on grade Portion of the 4-story Building

Both active venting zones installed below the slab-on grade portion of the four-story building are constructed of a continuous loop of perforated 4-inch HDPE pipe fitted with a filter sock and installed within a 6-inch deep and 1-foot wide trench cut into the existing concrete floor slab. The space around, below and above the SSDS pipe was filled with ¾" recycled concrete aggregate prior to pouring the new concrete slab in the trench to match the thickness of the existing floor. Connected to each SSDS loop is a horizontal pipe that extends to the rear of the building where it connects to a 6-inch PVC riser pipe (with an in-line blower - Radonaway model No. RP265) that extends to the roof to discharge. The blower is hardwired to an electric source. The exhaust from the blower is located a minimum of 10 feet from windows and ventilation inlets.

Cellar of the 5-story Building

Both active venting zones installed below the cellar slab of the 5-story brick building are constructed of a continuous loop of perforated 4-inch HDPE pipe fitted with a filter sock and installed within a 6-inch deep and 1-foot wide trench cut into the new concrete cellar slab. The space around, below and above the SSDS pipe was filled with 3/8" pea gravel prior to pouring the new concrete slab in the trench to match the thickness of the existing floor. Connected to each SSDS loop is a horizontal pipe that extends to the rear of the building where it connects to a 6-inch PVC riser pipe that extends to the roof to discharge. A blower (Radonaway model No. RP265) is fitted to the top of each riser pipe on the roof. The blower is hardwired to an electric source. The exhaust from the blower is located a minimum of 10 feet from windows and ventilation inlets.

SSDS Components

Each active SSDS loop is connected to a Dwyer Magnehelic Manometer (Range of 0-5 inches of water) and a Radonaway Checkpoint IIa Radon System Alarm. The alarms and manometers for the two venting zones (loops) installed below the cellar slab of the 5-story brick building are connected to their designated riser pipe and installed within a tamperproof plastic cabinet located in the cellar, immediately next to the riser pipes. The alarms and manometers for the two venting zones (loops) installed below the slab-on grade portion of the four-story building are connected to their designated riser pipe and installed within a tamperproof plastic cabinet located against the rear wall of the first floor, immediately next to the riser pipes.

2.0 INSTITUTIONAL CONTROLS

A series of Institutional Controls are required under the Remedial Action to assure permanent protection of public health by eliminating human exposure to residual materials remaining at the site. The Institutional Controls for the Remedial Action are:

- (1) The property will continue to be registered with an E-Designation with the NYC Department of Buildings. Property owner and property owner's successors and assigns are required to comply with the approved SMP;

- (2) Compliance with an OER-approved Site Management Plan including procedures for appropriate operation, maintenance, inspection, and certification of performance of EC's and IC's. The property owner and property owner's successors and assigns will inspect EC's and IC's and submit to OER a written certification that evaluates their performance in a manner and at a frequency to be determined by OER;
- (3) Engineering Controls will not be discontinued without prior OER approval;
- (4) OER has the right to enter the Site upon notice for the purpose of evaluating the performance of EC's and IC's;
- (5) The Site will be used for restricted residential use and will not be used for a higher level of use without prior approval by OER.
- (6) Vegetable gardens and farming in residual soil/fill on the Site are prohibited;
- (7) Use of groundwater underlying the Site without treatment rendering it safe for its intended use is prohibited;
- (8) All future activities on the Site that will disturb residual soil/fill must be conducted pursuant to the Soil/Materials Management provisions of the SMP, or otherwise approved by OER;
- (9) The Site is intended to be used for restricted residential use and will not be used for a higher level of use without prior approval by OER.

3.0 INSPECTION NARRATIVE

The site inspection was performed by Kevin Brussee of Brussee Environmental Corp. on August 2, 2023.

Composite Cover System

Slab-on grade Portion of the 4-story Building

Accessible portions of the floor coverings and exposed concrete slab across the interior of the building were inspected. No significant cracks that required patching/filling were observed. No evidence of recent repairs/replacement was observed.

Cellar of the 5-story Building

Accessible portions of the floor coverings and exposed concrete slab across the interior of the cellar were inspected. No significant cracks that required patching/filling were observed. However, BEC noted significant recent slab disturbance activities. The current tenant "Bathhouse" installed three hot-tub/pools below the cellar slab which required removal of sections of the cellar slab and excavation to a depth of approximately 4 ft. In addition, trenched excavation was likely performed for the water and drain connections for both the pools and showers installed in the cellar.

Vapor Barrier System

Slab-on grade Portion of the 4-story Building

The vapor barrier system applied to the surface of the slab-on grade section of the building does not appear to have been disturbed as no evidence of slab disturbance was observed during the Site inspection.

Cellar of the 5-story Building

The vapor barrier applied to the surface of the cellar slab appears to have been significantly disturbed as large sections of the slab were removed to allow for installation of the current tenant's pools and showers.

Active/Passive Sub-Slab Depressurization System

The blower for the active SSD systems for the cellar of the 5-story building were inspected on August 2, 2023 and found to be operating. However, magnahelic manometer vacuum gauges and alarms formerly located in the cellar could not be located as they appear to have been buried behind a finished wall.

4.0 STATUS of ENGINEERING AND INSTITUTIONAL CONTROLS

- Are the Engineering Controls and Institutional Controls employed at the Site continuing to perform as designed and continuing to be protective of human health and the environment?

Response: No.

The active SSDS piping below the cellar slab may have damaged during installation of the pools and associated lines/piping. Bathhouse provided photos and verbally stated that care was taken to avoid damaging the SSDS piping below the slab, but BEC cannot confirm as the work was done without BEC oversight. The alarms/gauges connected to the cellar's active SSDS were not accessible for inspection as they appear to have been buried behind a finished wall.

In addition, the vapor barrier system for the cellar (application of Elite Crete Systems E100-PTTM Clear Epoxy sealant and E100-VB5TM Waterborne Epoxy Vapor Barrier to the surface of the cellar slab) was damaged when sections of the cellar slab were removed by Bathhouse.

- Has anything occurred that impairs the ability of the Engineering Controls or Institutional Controls to protect public health and the environment?

Response: Yes (see above)

- Are any changes needed to the remedial systems or controls?

Response: Yes (see above)

- Has compliance with this SMP been maintained during this reporting period?

Response: No (see above) – monthly SSDS inspections have not been completed by the building super

- Are site records complete and up to date?

Response: No (see above) – monthly SSDS inspections have not been completed by the building super

- Have monthly SSDS inspections by building superintendents been performed, certified on inspection checklists, and maintained on file on site?

Response: No (see above) – monthly SSDS inspections have not been completed by the building super

5.0 DEVIATIONS in PERFORMANCE of ENGINEERING and INSTITUTIONAL CONTROLS

- The active SSDS piping below the cellar slab may have damaged during installation of the pools and associated lines/piping. Bathhouse provided photos and verbally stated that care was taken to avoid damaging the SSDS piping below the slab, but BEC cannot confirm as the work was done without BEC oversight. The alarms/gauges connected to the cellar's active SSDS were not accessible for inspection as they appear to have been buried behind a finished wall.
- In addition, the vapor barrier system for the cellar (application of Elite Crete Systems E100-PTTM Clear Epoxy sealant and E100-VB5TM Waterborne Epoxy Vapor Barrier to the surface of the cellar slab) was damaged when sections of the cellar slab were removed by Bathhouse.
- Monthly inspections of the active SSDS and annual inspections of the cover system have not been performed by the building super. Mr. Kevin Brussee of Brussee Environmental Corp had a discussion with the Site superintendent during the inspection on August 2, 2023, re-iterating the monthly inspection requirement and to print out additional inspection forms if they begin to run low. A new copy of the SMP and multiple copies of the engineering control checklist forms were provided left in the management office.

6.0 NEXT INSPECTION

The next Site Management Inspection will be performed in July 2024, and the Site Inspection and Certification Letter Report will be submitted by July 30, 2024.

7.0 CERTIFICATION

I, Kevin Brussee, certify the following:

- I am a Qualified Environmental Professional;
- I inspected the 103 North 10th Street site, site number 12EHAZ535K on August 2, 2023;
- I prepared this Site Inspection and Certification Letter Report;
- Engineering Controls or Institutional Controls employed at the Site continue to be in place and perform as designed and continue to be protective of human health and the environment (*with significant deviations noted above*);
- Vegetable gardening and farming in residual soils has been prevented;
- Groundwater underlying the Site is not being utilized without treatment rendering it safe for the intended purpose has been prevented;
- The Site has not been used for a higher level of use other than the restricted residential use addressed by the Remedial Action;

QEP Name: Kevin Brussee

QEP Signature:



Date

August 11, 2023

PHOTOS



Photo 1 – View of cellar with new pools installed in the cellar for Bathhouse.



Photo 2 – View of new showers and drains installed in cellar for Bathhouse.



Photo 3 – View of sauna installed in cellar for Bathhouse.



Photo 4 – Additional view of pools installed in cellar for Bathhouse.



Photo 5. View of active SSDS risers/blowers installed on roof for cellar portion of building.

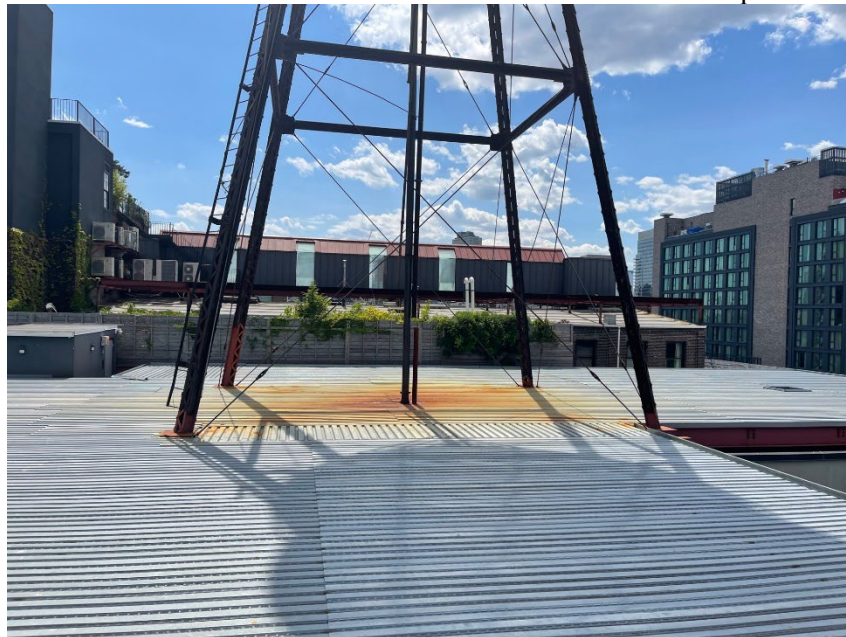


Photo 6. View of passive SSDS risers installed on roof for slab-on grade portion of building.