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Rob Free
President

Lori Ebbighausen, Ph.D.
Vice President – Corporate Safety

Long Island Rail Road

September 30, 2024

David Raymond
New York State Department of
Environmental Conservation
SUNY at Stony Brook
50 Circle Road
Stony Brook, NY 11790-3409

Site No. V00399
Site Name: Nassau Boulevard H01 (LIRR)
Site Address: Edgemere Road, south side of LIRR Right of Way
City/Town: Garden City
Zip Code: 11530
County: Nassau
Reporting Period: September 11, 2021 to September 10, 2024

Dear Mr. Raymond,

In response to your letter, dated June 10, 2024, requesting a submittal of the Periodic Review Report (PRR), the MTA LIRR is pleased to submit the PRR for the site identified as Nassau Boulevard H01 (LIRR). The PRR consists of an Executive Summary, Site Overview, Evaluation of Remedy Performance, Effectiveness and Protectiveness, IC/EC Plan Compliance Report, and Overall PRR Conclusions and Recommendations in narrative format and the Institutional and Engineering Controls Certification Form.

If you have any questions regarding these materials, please do not hesitate to contact me.

Very truly yours,

Magdalena Rychtecka

Magdalena Rychtecka
Director Environmental Planning & Compliance
Corporate Safety Department
Tel: 347-494-6034
mrychte@lirr.org

cc: P. Manske (MTA LIRR)
K. Mayerhofer (MTA LIRR)
A. Wilson (MTA C&D)

September 30, 2024

Site No. V00399

Site Name: Nassau Boulevard H01 (LIRR)

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City/Town: Garden City
Zip Code: 11530
County: Nassau
Reporting Period: September 11, 2021 to September 10, 2024

I. Executive Summary

A. The LIRR entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation (NYSDEC) in order to investigate and remediate potential mercury contamination associated with the operation and subsequent decommissioning and removal of the original Nassau Boulevard substation building, which housed mercury-containing rectifiers. Mercury was detected in surface and subsurface soil at the Site. Groundwater had not been impacted by the presence of mercury in on-site soil. Four areas of soil, containing elevated concentrations of mercury contaminated soil, were excavated. Approximately 365 tons of soil were excavated and transported off-site and replaced with clean fill and angular stone.

B. The remedial activities removed the most significant soil contamination and, at the same time, effectively capped any remaining residual mercury. Future exposure to mercury is not expected. The Site will continue to be utilized as an active electric substation for the foreseeable future. Further soil excavation at the Site is not planned or expected following the construction of a new substation building in the footprint of the former substation building and associated equipment. The NYSDEC letter, dated February 17, 2011, stated that the Department was satisfied that the Work Plan, relative to the Site, was properly implemented under the terms of the Voluntary Agreement and the work was completed. However, a Site Management Plan (SMP) was developed for the Nassau Boulevard substation site in order to manage any potential future excavation activities that may be required to maintain site operations. In addition, to further protect the community and LIRR employees, the LIRR has elected to file a Declaration of Covenant and Restrictions for the site property.

C. The site was in compliance with the Site Management Plan during this reporting period.

D. No changes to the Site Management Plan or frequency for submittal of PRRs are warranted at this time.

II. Site Overview

A. The Site is located in Garden City, Nassau County, on the west side of Edgemere Road, on the south side of the LIRR Hempstead Branch Right-of-Way, as depicted on the attached Site Location Map (Figure 1-1). Active LIRR tracks bound the Site to the north, Edgemere Road bounds the Site to the east and a community park bounds the Site to the west and south. The Site is fully fenced and locked on all sides and the community park property located to the west of the substation property is elevated approximately 10 feet and separated from the Site by a retaining wall and 8 feet tall fencing.

A Delineation Phase II Site Assessment of the Nassau Boulevard Substation was completed between September 2005 and March 2007, in which areas of mercury contamination were identified. Based on the results of sampling conducted as part of the Delineation Phase II Site Assessment, and in order to remediate the highest concentrations of mercury identified at the Nassau Boulevard Substation, recommendations for remedial excavations were developed and outlined in the NYSDEC-approved Remedial Action Work Plan, dated January 2008. Remediation activities were completed in July 2008.

B. Mercury was detected in surface and subsurface soil at the Site. The most significant mercury contaminations were identified in surface soil collected to the south and west of the former substation building, 2 to 3 feet south of the concrete platform, with concentrations of mercury up to 21,000 mg/kg. Significant mercury concentrations were also detected in surface soil to the southeast of the substation building, adjacent to the south of the concrete platform and steps, with concentrations up to 1,480 mg/kg. Groundwater had not been impacted by the presence of mercury in on-site soil.

Four areas of Site soil containing elevated concentrations of mercury were removed and replaced with clean fill and angular stone, as depicted in the attached Excavation Limits/Endpoint and Side Wall Sample Location Map (Figure 1-3). The excavation areas included: two areas to the southeast of the substation building to a depth of 1 foot below ground surface (bgs) for a total of 450 square feet of area and removal of 17 cubic yards of soil; one area to the north of the substation building to a depth of 1 foot bgs, for a total of 9 square feet in area and removal of 9 cubic feet of soil; and one area to the southeast of the substation building to a depth of 15 bgs for a total of 123 square feet in area and removal of 68 cubic yards of soil. In addition, 11 cubic yards of track ballast were excavated and removed. A wind screen was installed along the entire length of the south fence on the Site to limit and monitor the migration of contaminated dust and particulate matter for the duration of the remedial activities. The concrete foundation walls and platforms of the original substation building, located within 2 feet of the excavation area were demolished and removed. Soil removal was conducted prior to the construction of the new substation building. Generation of dust was monitored by utilizing a digital dust monitor and air monitoring was performed. Endpoint samples were collected from the excavations to determine characteristics of the remaining soil prior to Site restoration. Endpoint sample results were provided to NYSDEC and NYSDOH. The cleanup goals for the mercury-contaminated soil were 6 NYCRR Part 375 SCOs (Soil Cleanup Objectives) for Industrial Use as, the completed exposure assessment had determined that the surrounding community would not be exposed to these contaminants due to the restricted nature of the facility and direct exposure to mercury by LIRR workers (on-site receptors) who

are required to periodically enter the site for equipment and repair is not expected. This met the RAO (Remedial Action Objectives) for the protection of human health and the environment.

Further soil excavation at the substation is not planned or expected following the completion of remedial activities. However, a Site Management Plan was developed for the Site in order to manage any potential future excavation activities that may be required to maintain Site operations (please see section IV below).

III. Evaluate Remedy Performance, Effectiveness and Protectiveness

A. All final endpoint soil samples collected from the remedial areas exhibited contaminant concentrations below the Industrial Use SCOs. Further soil excavation at the substation is not recommended.

IV. IC/EC Plan Compliance Report

A. IC/EC Requirements & Compliance

1. Institutional Controls consist of a Declaration of Covenant and Restrictions placed on the Nassau Boulevard Substation Site, a Site Management Plan and a Soil Management Plan, which formally document the remedial action and future use of the Site as industrial only, and identify the type and location of the engineering controls being used to isolate soil from human and non-human contact and requires the LIRR to continue in full force the institutional and engineering controls stated, including the angular stone cover system overlaying the site.

   Furthermore, it places restrictions on the performance of intrusive activities at the Site, to prevent the potential for unacceptable exposure of any residual soil contamination to human receptors and the environment. Excavation activities within the area subject to the Declaration of Covenant and Restrictions will not be permitted without proper notifications, safety precautions and planning. Handling of excavated soil during maintenance or redevelopment of the Site shall be in accordance with the Soil Management Plan section of the Site Management Plan.

   Additionally, the Declaration of Covenant and Restrictions prohibits the use of groundwater underlying the property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the LIRR first obtains permission to do so from the Relevant Agency.

   Engineering Controls will be used to limit human and non-human contact with Site soil, and consist of 1) angular stone overlaying the entire Site to reduce to the extent practical direct contact (dermal adsorption, inhalation and accidental ingestion) with residual soil contamination and exposure of biota to contaminated soil; 2) high-security fencing surrounding the entire site with access control; and 3) security signage posted at each gate at in the substation fencing at the Site warning LIRR employees that the LIRR Corporate

Safety division must be contacted prior to initializing any excavation activities. In addition, the substation Site will continue to be utilized as an industrial property. Please see the attached Current and Former Substation Building Location/Engineering Controls Map (Figure 2-1).

2. The performances of these controls are evaluated during inspections by LIRR Corporate Safety Department personnel. For the reporting period of 9/11/21-9/10/24, annual inspections were performed on 8/2/22, 9/11/23 and 8/6/24. Each control is fully in place and effective.

3. No corrective measures are noted at this time.

4. The Institutional Controls and Engineering Controls are effective and no changes are recommended.

B. IC/EC Certification

1. The IC/EC certification is attached.

V. Monitoring Plan Compliance Report – Not Applicable

VI. Operation & Maintenance Plan Compliance Report – Not Applicable

VII. Overall PRR Conclusions and Recommendations

A. All Engineering and Institution Controls were met during the reporting period.

B. The remedial objectives of the Site have been met.

C. The frequency of the submittal of PRRs is appropriate for the Site.

Appendices

Appendix A. Site Location Map

Appendix B. Excavation Limits/Endpoint and Side Wall Sample Location Map

Appendix C. Engineering Controls Map

Enclosure 2. IC/EC Certification Form

Appendix A

KRB/2229 (LIRR)/sitemaps.cdr(03/29/04)

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

LONG ISLAND RAIL ROAD
SITE MANAGEMENT PLAN

SITE LOCATION MAP

NASSAU BOULEVARD SUBSTATION (V00399-1)

NOT TO SCALE

FIGURE 1-1

LEGEND

- SUB–BASEMENT AND/OR SUB–GRADE FLOOR DRAIN (F.D.)
- PIPE CONNECTION BASED ON LIRR CONSTRUCTION DRAWINGS
- ESTABLISHED PIPE CONNECTION BASED ON D&B'S FLUSH TEST
- CHAIN LINK FENCE
- AREA EXCAVATED TO 1.5–FOOT BELOW GROUND SURFACE
- AREA EXCAVATED TO 15–FEET BELOW GROUND SURFACE
- COLLECTED END POINT/SIDE WALL SAMPLE LOCATION
- SILT FENCING

EXISTING RAIL ROAD TRACKS
FORMER DISPOSAL FIELD
FORMER SEPTIC TANK
FORMER 4" DRAIN TILE CONNECTION
GRASS/LEAVES
AREA 4
ACCESS DOOR TO SUB–BASEMENT
C.O.
TRAP
LAVATORY
BREAKER SWITCHES
NBFS–01
NBFS–02
EXISTING RECTIFIER
RECTIFIER CABLE TRAY
CONCRETE PLATFORM
CONCRETE RETAINING WALL
UTILITY TRENCH SYSTEM
TRANSFORMER YARD
BITUMINOUS DRIVEWAY
PLAYGROUND/ PARK
CONCRETE STAIRS
ELECTRICAL PANEL
NBFS–03
NBFS–04
3" L RISER FOR R.D.'s ABOVE
PVC DISCHARGE PIPES TO GRADE FROM ROOF
ACCESS DOOR TO SUB–BASEMENT
NBSW–04
NBEP–05
AREA 3
NBEP–07
NBEP–06
NBEP–10
CONCRETE PLATFORM
CONCRETE STAIRS
AREA 2
NBEP–11
NBEP–12
NBEP–09
NBSW–05
NBEP–08
NBSW–06
PVC C.O.
NBSW–07
NBSW–08
NBSW–09
AREA 1
NBSW–01
NBEP–02
NBEP–03
NBEP–04
NBSW–03
NBEP–13
NBEP–14
NBSW–02
WATER METER PIT WITH EARTHEN BOTTOM
GEOPHYSICAL SURVEY AREA
COMMUNICATIONS MANHOLE
GRASS
CESSPOOL
GRASS
42' TO TEST PIT NBTP–01 AND ADDITIONAL GEOPHYSICAL SURVEY
PLAYGROUND/PARK
0 5 10
SCALE IN FEET

SOURCE: AVAILABLE LONG ISLAND RAIL ROAD CONSTRUCTION DRAWINGS AND D&B's FIELD OBSERVATIONS

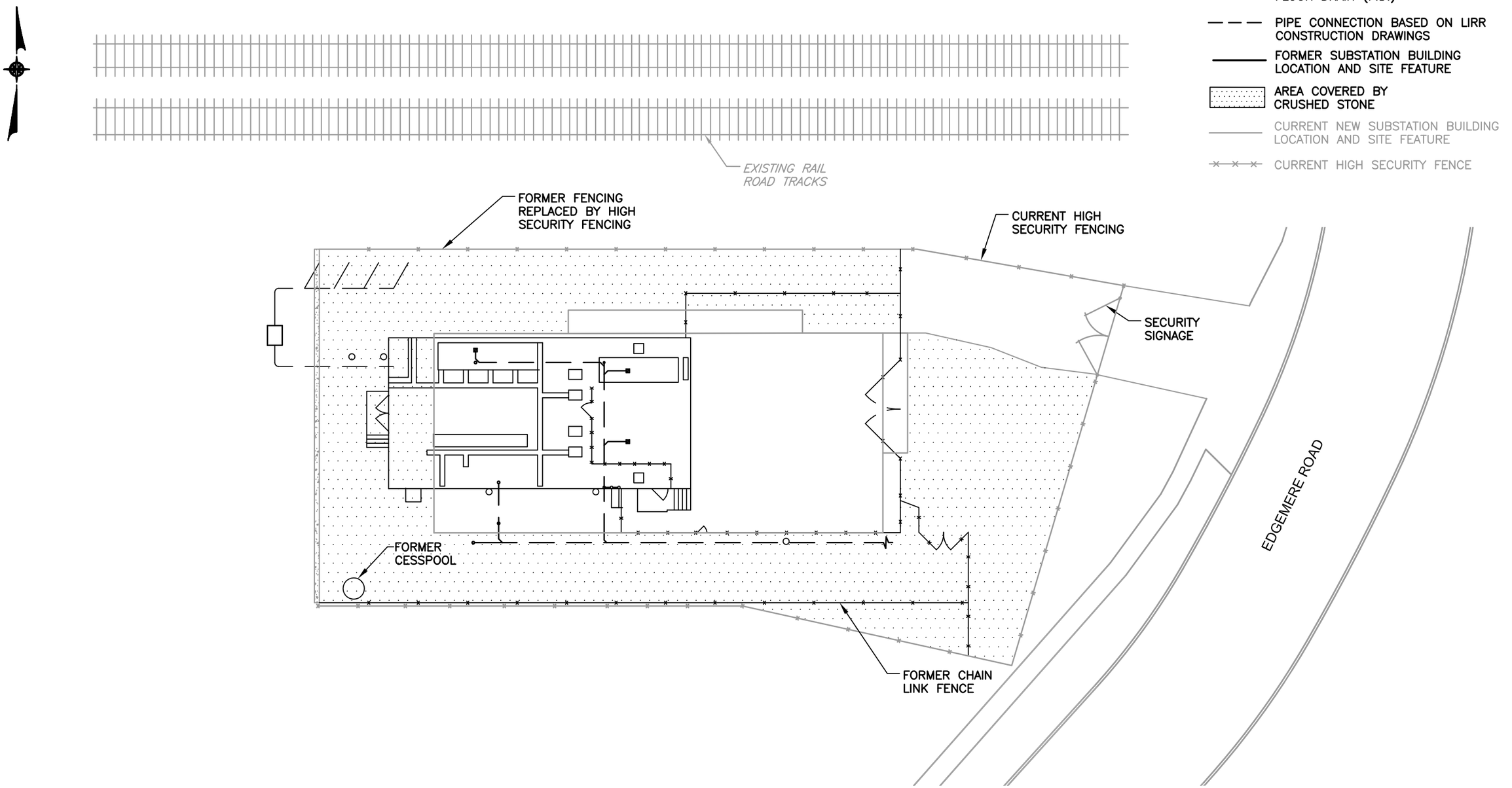
Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

LONG ISLAND RAIL ROAD
SITE MANAGEMENT PLAN

EXCAVATION LIMITS/ENDPOINT AND SIDE WALL SAMPLE LOCATION MAP
NASSAU BLVD. SUBSTATION (V00399-1)

FIGURE 1-3

Appendix C



SOURCE: AVAILABLE LONG ISLAND RAIL ROAD CONSTRUCTION DRAWINGS AND D&B's FIELD OBSERVATIONS

SCALE: 1"=20'

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

LONG ISLAND RAIL ROAD
SITE MANAGEMENT PLAN

CURRENT AND FORMER SUBSTATION BUILDING LOCATION/ENGINEERING CONTROLS MAP
NASSAU BLVD. SUBSTATION (V00399-1)

FIGURE 2-1

F:\2229\NASSAU BLVD\2229-FIGURE 1-2.dwg, 10/19/2010 1:24:50 PM, Adobe PDF

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. V00399

Site Name Nassau Boulevard H01 (LIRR)

Site Address: Edgemere Road, south side of LIRR Right of Way Zip Code: 11530
City/Town: Garden City
County: Nassau
Site Acreage: 0.350

Reporting Period: September 11, 2021to September 10, 2024

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial	☒	☐
7. Are all ICs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____
Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. V00399 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
33-114-17	MTA Long Island Railroad	Soil Management Plan Landuse Restriction Site Management Plan

The covenant contains a land use restriction. Engineering controls consist of site fencing and angular stone cover.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
33-114-17	Cover System Fencing/Access Control

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

(a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative Date

IC CERTIFICATIONS
SITE NO. V00399

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Magdalena Rychtecka (print name) at 146-01 Archer Avenue, MC 1428, Jamaica, NY 11435 (print business address),

am certifying as MTA LIRR Designated Representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Magdalena Rychtecka

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

9/30/2024

Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Andrew Wilson (print name) at 90-27 Sutphin Blvd.,Jamaica, NY 11435 (print business address),

am certifying as a Qualified Environmental Professional for the MTA Long Island Rail Road (Owner or Remedial Party)

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	NY 077939 Stamp (Required for PE)	9/30/2024 Date