SUMMARY OF REVISIONS TO NYCT 2025 DOS AGENCY SAFETY PLAN

Changes to typographical errors, formatting, and inspection intervals in Sections 1 thru 8
Global Changes made: All Policy Instruction (P/I) numbers truncated, not including the version number, example (10.1.7, truncated to "most recent version of P/I 10.1) and "corrective actions" updated to " corrective actions or safety risk mitigations".
Some areas of Section 6 have been moved to better align them with departmental/organizational changes that have been made (ex. Power -Electrical & Third Rail).

- Pg 1-2: FTA Funding Types Updated
- Pg 2-2: Updated signatures/approvals
- Pg 2-3 thru 2-5: Updated approval documentation – To be added once ASP approved.
- Pg 2-7: Updated Section 2.2.3 - Agency Safety Plan Control & Update to include more detail.
- Pg 2-9: Updated Section 2.2.5 to include version update for 2025 (Version 7, Sections 1-9, Annual Update, 2025)
- Pg 3-4: Section 3.4 - Safety and Risk Reduction Performance Measures & Targets Updated and includes New York City Transit 2025 safety and risk reduction performance measures and targets numbers in table format.
- Pg 4-3: Updated NYCT Safety Policy NYCT P/I 10.1.9 (Issued 10/24)
- Pg 4-14: Section 4.5 Authorities, Accountabilities, and Responsibilities – under Accountable Executive added "considering all other safety risk mitigations recommended by the Safety Committee, ensuring that any safety risk mitigations for the safety risk reduction program as outlined in the ASP are implemented and"
- Pg 4-15: Updated MTA Appointment and Delegation of Authority
- Pg 4-16: Updated Agency Leadership and Executive Management
- Pg4-17: Updated Key Staff – Department of Subways
- Pg 4-17 thru 4-18: Updated Organization Charts
- Pg 4-19 Added Section 4.6.3 Get It Fixed Reporting Website – "An additional online reporting mechanism called "Get It Fixed" located at https://mta.info/getitfixed, has been established. Get It Fixed is an online reporting portal developed for use by NYCT employees to report non-emergency issues like customer behavior, equipment issues, climate/comfort, and cleanliness among other reportable topics." (this made the old 4.6.3 Safety Dispute Resolution Form section and following sections move down a number (4.6.3 becomes 4.6.4)).
- Pg 4-22: Section 4.7 Safety Committee – added "Joint Labor Management Safety Committee"
- Pg 4-22 – 4-26: Section 4.7.1 title changed to "Purpose" and formatting changed creating sections 4.7.2 thru 4.7.8.
- Pg 5-2: Section 5.1 Safety Hazard Identification added "with scheduled updates submitted to the PTSB"
- Pg 5-3: Section 5.1.1 Hazard Identification added, "The DOS Safety, Safety Hazards and Risk Prevention program (SHARP) a proactive program using data from employee referrals, field observations, audits, and injury data to identify and address potential safety trends."
- Pg 5-6: Section 5.2.1 Hazard Classification – (Table 5-2) Probability Levels added "Qualitative Analysis" to Individual Item and Fleet/Inventory columns.

SUMMARY OF REVISIONS TO NYCT 2025 DOS AGENCY SAFETY PLAN *CONTINUED* - PAGE 2

- Pg6-14: Section 6.1.B Service Delivery – added "Additionally, a systems operations telecommunication review is conducted, where the Planning & Control Superintendent reviews random calls recorded on the NICE Inform System on a weekly basis and records on the Telephone Audit database."
- Pg 6-19: Section 6.2.1C – changed to Power (Electrical & Third Rail Operations)
- Pg 6-136: Section 6.3.2F Employee On the Job Injury Investigation updated to include – "Managers and supervisors must investigate employee injuries and enter the injury incident into the online portal, Smartly. The Smartly app is run by Sedgwick Claims Management Services, Inc, who NYCT has transitioned the administration of Workers' Compensation claims to. A Sedgwick Claims Examiner will contact the injured employee and Manager to further discuss the incident. Supervision must identify root causes and ensure corrective actions or safety risk mitigations are implemented within 2 business days of an accident."
- Pg 6-140: Section 6.3.3A OSS Investigation of Near Miss Incidents, updated to include, " Additionally, OSS has established near-miss committee to review and conduct quarterly trend analyses on both potential for employee contact (PEC) and non-PEC near-miss incidents. The committee consists of the Chief Officer of OSS - Operations, the Chief Officer of OSS - Hazard Assessment, the Manager of OSS - Rapid Transit Investigations, and the Manager of OSS - Hazard Analysis. All committee members review near-miss incident data to identify and encourage positive trends, develop corrective actions to combat negative trends, track all recommendations to completion, and ensure that implemented recommendations are periodically reviewed for effectiveness"
- Pg 7-15: Section 7.1.4 De-Escalation and Workplace Violence Training Updated to include "A standalone de-escalation training has been established for Department of Subways employees. In the training techniques are provided enabling employees to recognize and identify situations which can potentially put themselves at risk as well as handling confrontational interactions. The training also instructs employees to retreat to a safe and secure place when encountering a potentially threatening situation with customers in their work environment. The training consists of lecture and provides a forum to practice learned techniques through hands on, scenario-based exercises to provide practice, receive instructor and peer feedback, and aid retention. Currently, de-Escalation training is offered for station agents, conductors, and station cleaner titled emplyees with plans for a further rollout of de-escalation training to all front-line and maintenance employees. In conjunction with the de-escalation training DOS has issued bulletins addressing de-escalation best practices to all station environment & operations employees and frontline"
- Pg 7-17: Section 7.1.5 Contractor Safety updated to include "The Safety Manager shall maintain a list of all employees (including Subcontractors) who attended and completed NYCT's Track Safety Seminar and submit the list to the Project CEO on a quarterly basis. The list shall contain all employees' names, job function/classification, employer, date of attendance, and the date for renewal training."
- Pg 7-21 – pg 7-42: Section 7.3 Training Matrices added.

New York City Transit

DEPARTMENT OF SUBWAYS
AGENCY SAFETY PLAN

2025

2025 AGENCY SAFETY PLAN (ASP) FOR SUBWAYS - TABLE OF CONTENTS

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1 Transit Agency Information

Transit Agency Name:
New York City Transit (NYCT)

Transit Agency Address:
2 Broadway, New York, NY 10004

Name and Title of Accountable Executive:
Demetrius Crichlow, President

Name of Chief Safety Officer or SMS Executive:
Brian Lapp, Senior Vice President, Safety & Security

Mode of Service Covered by This Plan:
Subway Rapid Transit

NYCT Agency serves a large urbanized area. – New York City

FTA Funding Types:

Grant Program Type	Total Obligation Amount
CIG 5309	4,599,638,564.00
ER (5324)	5,707,741,469.00
Flexible Funds	837,733,526.00
Formula (5307)	19,599,743,487.00
Formula (5337)	8,568,314,394.00
Formula (5339)	416,534,360.00
Discretionary	377,555,185.00
Grand Total	40,107,260,985.00

Mode of Service Provided by the Transit Agency:
Subway & Bus

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2 Plan Development, Approval, and Updates

2 Plan Development, Approvals, and Updates

2.1 Plan Development and Approvals

Name of Entity That Drafted This Plan: New York City Transit (NYCT) – Office of System Safety

Signature: 

Email: demetrius.crichlow@nyct.com

Demetrius Crichlow, President, New York City Transit
Accountable Executive

Signature: 
Brian Lapp (Feb 4, 2026 16:37:58 EST)

Email: brian.lapp@nyct.com

Brian Lapp, Senior Vice President, Safety & Security, NYCT
Chief Safety Officer

Signature: 

Email: william.amarosa@nyct.com

William Amarosa Jr., Executive Vice President, Department of Subways, NYCT
Department Executive Vice President

NYCT ASP Safety Committee Approval:

As designated in the Bipartisan Infrastructure Law (Infrastructure Investment and Jobs Act) the NYCT Agency Safety Plan has been approved by NYCT Safety Committee (Safety Committee) and is memorialized in the approved which can be found on page 2-4.

Signature: Brian Lapp (Feb 4, 2026 16:37:58 EST)

Email: brian.lapp@nyct.com

Brian Lapp, Senior Vice President, Safety & Security, NYCT

Signature: Frank Farrell (Feb 5, 2026 12:45:09 EST)

Email: frank.farrell@nyct.com

Frank Farrell, Executive Vice President, Department of Buses/MTA-Bus Company, NYCT

Signature:

Email: william.amarosa@nyct.com

William Amarosa Jr., Executive Vice President, Department of Subways, NYCT

Labor Organization Representing the Plurality of the Frontline Workforce
Transport Workers Union Local 100
John Chiarello, President, TWU Local 100

[1]*Electronic Approval*

[1]*Electronic approvals on file and page 2-4*

NYCT ASP Electronic Approvals:

From: John Chiarello <jchiarello@twulocal100.org>
Sent: Monday, December 29, 2025 2:39 PM
To: Doddo, Tim <Timothy.Doddo@nyct.com>
Cc: Tony Utano <tutano@twulocal100.org>; Celeste Kirkland <ckirkland@twulocal100.org>; Eric Loegel <eloegel@twulocal100.org>
Subject: Re: For Review/Approval

Twu local 100 approves of finalized
PTASB

John V. Chiarello
President | Transport Workers Union, Local 100
195 Montague Street, Brooklyn NY 11201
Office: 212.873.6000 x2075 | **Cell:** 646.498.3738 | **Fax:** 646.998.7155
Email: jchiarello@twulocal100.org | **Web:**www.twulocal100.org

"TWU Local 100 - We Move New York"

On Dec 29, 2025, at 2:33 PM, Doddo, Tim <Timothy.Doddo@nyct.com> wrote:

John,
Per our discussion today, this is to bring this to top of your inbox. If you could respond that you approve of finalizing the PTASP documents via reply to this that would be appreciated.

I look forward to continuing our discussions as we work toward continuously improving our safety program and the PTASPs that document it.

HAPPY NEW YEAR!

Timothy J. Doddo, CSP, WSO-CSE, TSSP
Vice President
MTA New York City Transit Office of System Safety
2 Broadway (D28.53) | New York, NY 10004
Main: 646-252-5934
Office: 646-252-5796 | **Cell:** 646-899-0925 | **Fax:** 646-252-5933
timothy.doddo@nyct.com
SAFE 247365

MTA Board of Directors Approval:

As required by 673.23(a)(1) the 2024 NYCT Agency Safety Plan has been approved by the MTA Board of Directors and is memorialized in the approved board meeting minutes which can be found below.

TO BE ADDED

2.2 Plan Updates

2.2.1 Annual Agency Safety Plan (ASP) Review

The ASP is reviewed annually to incorporate:

- changes required by the Safety Committee
- modifications required by the Public Transportation Safety Board (PTSB)
- changes in management
- new equipment
- new or modified systems and facilities
- extended or modified operations
- newly added safety related topics

2.2.2 Agency Safety Plan Review Timeline

- January – Office Of System Safety (OSS) sends out a request to the Department of Subways (DOS) representatives for the annual ASP update.
- February - Individual meetings are held with DOS representatives to update them on any changes to the ASP (format, content, requirements…etc), if necessary and request the department to update the applicable sections of the ASP.
- April – OSS collects, reviews and combines all edits from departments into 1st draft update, 1st draft update is distributed to OSS divisions for review.
- May – OSS edits/comments are incorporated into the ASP and they are redistributed back out to DOS for 2nd round review and comment.
- June OSS integrates all 2nd round comments into 2nd round draft and resubmits to DOS departments for approval and/or to finalize any additional comments.
- July – OSS 2nd draft update is distributed to OSS divisions for review and/or approval. Any outstanding comments/edits are addressed.
- August - The ASP is routed to Public Transportation Safety Board (PTSB) for DRAFT review. Any PTSB submitted comments are reviewed by OSS and if necessary, reviewed by the department/division too which the comments are intended for and incorporated into the ASP.
- September – ASP is routed to NYCT ASP Safety Committee and the PTSB (for DRAFT review only) review, comment and/or approval. Any NYCT ASP Safety Committee's and PTSB submitted comments are reviewed by OSS and if necessary, reviewed by the department/division too which the comments are intended for and incorporated into the ASPs.
- October - If necessary, an updated ASP with ASP Safety Council comments is resubmitted to the ASP Safety Council for approval. ASPs routed for signature/approval to head of OSS, DOS, DOB, C&D and president. Council for review and/or approval.

- November - Board Package submitted to MTA Safety, Chief Safety Officer for submittal to Chief Administrative Officer and Ass. Associate Council (General Councils Office). The board package submittals are for the MTA Safety Committee to review and approve during a meeting the precedes the MTA Board meeting. The MTA Safety committee recommends approval to the MTA Board during the separate standalone board meeting. Once board approval letter has been obtained by the board Secretary, it is inserted into the final submittal of the ASP for the PTSB, along with the OSS transmittal letter and sent via email to PTSB.

2.2.3 Agency Safety Plan Control and Update

The purpose of this plan is to provide a formalized action plan that addresses all applicable requirements and standards from the FTA's Public Transportation Safety Program and National Safety Plan and will ensure that safety and environmental compliance is integrated into all phases of the division/department including design, procurement, construction, modification/rehabilitation, operation, maintenance, and disposal. The Agency Safety Plan establishes a coordinated safety effort that is responsible to the needs of the operating and support departments such that all personnel are working toward the common goal of minimizing the occurrence of employee assaults, customer and employee accidents, and other safety concerns by providing safe revenue service to our customers and a safe work environment for our employees. The Agency Safety Plan fosters commitment and involvement by management and staff in safety and environmental activities.

The Office of System Safety (OSS) is responsible for analysis, review, revision, and publication of the ASP. OSS sends out a written request to DOS for liaisons that will work with OSS to solicit and collect edits to and input from the various divisions within the Department of Subways (DOS) and the Safety Committee. Once the liaisons are identified, working drafts are distributed via email to the DOS liaisons who distribute to all DOS departments with a request to provide feedback on, update and edit the ASP. The updates, edits and feedback are combined in word tracked changes and sent to OSS for review. OSS reviews the updates, edits, and feedback and reaches out to DOS with any questions, clarifications, concerns or recommendations for discussion and feedback via email or voice. Once all the updates and edits have been discussed, finalized and clarified, the second round working draft is redistributed to DOS for another round of review and updates via email. Any noted edits or updats as a result of the second round review are incorporated into the working draft and a final review is completed by DOS. Once the final working draft is complete it is distributed via email to the Safety Committee for review and comments, comments or edits are discussed with the specific DOS department and OSS until finalized, when a final draft is issued to senior DOS and OSS management for review and approval and board review leading to ultimate final approval.

Pursuant to the Bipartisan Infrastructure Law (49 U.S.C § 5329(d)) the Safety Committee is required to approve an agency's Agency Safety Plan (ASP) and any updates to the ASP. This approval must occur before the agency's board of directors approves the ASP or update. The Safety Committee is a collaborative labor-management committee that is focused on critical safety issues including needed mitigations for known safety hazards. The NYCT Safety Committee consists of Senior Vice President of Safety and Security, Executive Vice President of

Subways, Executive Vice President of Buses, and Senior TWU 100 Representatives. The procedures, timelines, and programs detailed in this document (including those in referenced policy documents) have been reviewed and approved by all the members of the Safety Committee and amendments/modifications to any of these procedures, timelines, and programs will be reviewed and approved by the Safety Committee prior to submittal of the ASP. The Safety Committee has access to any available safety data upon request of the Safety Committee to facilitate this process.

OSS submits the final ASP to the President of NYC Transit, the Executive Vice President of the Department of Subways, the Senior Vice President of the Safety and Security for review, approval, and to affix their signature to the plan. The final plan is posted on the NYCT intranet "MTA Today" electronically and departmental liaisons are alerted when an updated plan is posted.

2.2.4 Agency Safety Plan Review and Approval by the Oversight Agency

On July 19, 2018, FTA published the Public Transportation ASP (PTASP) Final Rule which requires operators of urban public transportation systems that receive federal funds to develop ASPs that include the processes and procedures to implement Safety Management Systems (SMS).

New York City Transit conducts an annual revision of the ASP in accordance with 49 CFR Part 673. NYCT submits ASP modifications and any subsequent modified procedures to the New York State Public Transportation Safety Board (PTSB) for review and approval. Through the review of the ASP, NYCT will ensure that the SMS is appropriately scaled to the size, scope, and complexity of NYCT and includes Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion.

In accordance with PTSB guidelines, NYCT submits the ASP for review and approval for annual recertification or when changes in conditions require a modification of the plan. Once the ASP is finalized following the PTSB review process, the PTSB issues a formal letter of approval to New York City Transit.

2.2.5 Tracking Versions

Version Number and Updates			
Version Number	**Section/Pages Affected**	**Reason for Change**	**Date Issued**
1.0	None	Original	2019
2.0	None	ASP with MTA Board Approval	2020
3.0	Sections 1 - 8	Annual Update	2021
4.0	Sections 1 - 8	Annual Update	2022
5.0	Sections 1 - 8	Annual Update	2023
6.0	Sections 1 - 9	Annual Update	2024
7.0	Sections 1 – 9	Annual Update	2025

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3 Safety Performance Program (Measures & Targets)

3.1 Risk Reduction Program Overview

The NYCT safety risk reduction program aims to improve the safety performance of transit operations by reducing the number and rates of accidents, injuries, and assaults on transit workers. This section outlines the required safety risk reduction program measures, sets targets for them, and initiatives for the risk reduction program.

In addition, this section outlines the safety committees' roles and responsibilities within NYCT and the risk reduction program.

3.2 New York City Transit Safety and Risk Reduction Program Performance Measures & Targets

NYCT safety performance targets are set based off of data generated from a 3-year rolling average of National Transportation Database (NTD) data (2021-2023) and based on the safety performance measures in the National Public Transportation Safety Plan (NPTSP). These measures will be used to identify actions to take to improve safety outcomes. NYCT in conjunction with the Safety Committee selected performance targets that are appropriate to the operation and environment and in accordance with a specific, measurable, attainable, relevant, and time-bound (SMART) approach that are in compliance all applicable requirements and standards from the FTA's Public Transportation Safety Program and National Safety Plan. The measures will be regularly monitored to ensure they are being met and improving safety. The measures will also be reevaluated on an annual basis to refine the sub-measures developed and performance targets selected.

NYCT Safety Risk Reduction Program (SRRP) Measures and their rates, include:

- Major Events
- Collisions
- Injuries
- Assaults on Transit Workers

NYCT additional Safety Performance Measures and their rates, include the above-mentioned as well as:

- Pedestrian Collisions
- Vehicular Collision
- Fatalities
- System Reliability (mean distance between major mechanical failures by mode)
- Transit Worker Fatality (rate only)
- Transit Worker Injury (rate only)
- System Reliability

3.3 Safety Performance Target Coordination

Based on analysis of historical and current leading and lagging indicators, NYCT and the Safety Committee set feasible performance goals to support data-based continuous safety and reliability improvements. These targets are intended to guide prioritizing resources and investments that support meeting performance targets.

NYCT provides safety performance targets to the New York State Department of Transportation, Public Transportation Safety Board (NYSDOT/PTSB) via the PTASP review and approval process. NYCT incorporates PTSB comments into the PTASP through this collaborative review and comment process and may adjust performance targets as a result. This supports the PTSB in the federally required transportation planning process in compliance with the Statewide Transportation Improvement Program (STIP) and Transportation Improvement Program (TIP). MTA Capital Funding sends a copy of the approved ASP to the New York Metropolitan Transportation Council (NYMTC), the designated Metropolitan Planning Organization (MPO), as required in the STIP and TIP.

NYCT will submit safety performance targets to the New York State Department of Transportation, Public Transportation Safety Board (NYSDOT/PTSB).

Targets are transmitted to the state per Section 3 of the PTASP.

State Entity Name: NYSDOT/PTSB

Date Targets Transmitted: Submitted with ASP

3.4 Safety and Risk Reduction Performance Measures & Targets

National Transit Database (NTD) 3-Year Data
2022-2024

Safety Performance Measure	Description	NYCT Subways* Results Nominal	NYCT Subways* Results Goal (2%)	Definitions**
Measure 1a—Major Events (SRRP)	This includes all safety and security major events as defined by the NTD.	812.33	**796.09**	Events based on **Safety**, **System Security**, and **Personal Security** contains reportable thresholds that include, but not limited to: •Fatality (includes suicides) •One or more persons immediately transported for medical attention (injury -- which includes attempted suicides) •Serious injury •Substantial damage (for NYCT and MTA Bus, any damaged Transit property that exceeds $25,000). •Evacuations of a transit facility or vehicle for life safety reasons or to the rail right-of-way •All mainline/yard derailments • Rail transit vehicle collisions occurring at a grade crossing or intersection •Rail transit vehicle collisions with an individual (regardless of injury) •Rail transit vehicle collisions with another revenue or non- revenue rail transit vehicle *Including maintenance/hi-rail vehicles •Incidents involving a moving runaway train *Applies to revenue vehicles only
Measure 1b—Major Event Rate (SRRP)	This includes all safety and security major events as defined by the NTD, divided by VRM.	2.36E-06	**2.31E-06**	
Measure 1.0 - Collisions	This includes all collisions reported to the NTD.	201.33	**197.31**	Consist of Revenue Vehicle (Bus or Train) making contact with a person, another Revenue Vehicle (this also applies to Maintenance Trains or Hi-Rails), and fixed objects.
Measure 1.1—Collision Rate (SRRP)	This includes all collisions reported to the NTD, divided by VRM.	5.85E-07	**5.73E-07**	
Measure 1.1.1—Pedestrian Collision Rate	This includes all collisions "with a person," as defined by the NTD, divided by VRM.	5.75E-07	**5.64E-07**	
Measure 1.1.2—Vehicular Collision Rate	This includes all collisions "with a motor vehicle," as defined by the NTD, divided by VRM.	5.81E-09	**5.69E-09**	
Measure 2a—Fatalities	This includes all fatalities as defined by the NTD.	110.00	**107.80**	Based on Major events to which needs to be confirmed within 30 days of incident. Fatalities are based on major event categories that includes: **Collisions** (Person contact with a vehicle or vehicle makes contact to another vehicle), **Derailments** (Mainline or Yard), Fires, Acts of God, **Suicides**, **Bombing**, **Hazardous Material Spill**, **Chemical/Biological/Radiological/Nuclear Release**, **Homicide**, and **Other Safety or Security Event** (Slip,Trip,Fall ; Electrocution; Projectiles, other Miscellaneous occurrences) However, other fatalities that includes illness, drug overdoses, or other natural causes are **not** considered reportable.
Measure 2b—Fatality Rate	This includes all fatalities as defined by the NTD, divided by VRM.	3.19E-07	**3.13E-07**	
Measure 2.1—Transit Worker Fatality Rate	This includes all transit worker fatalities as defined by the NTD, including the categories "Transit Employee/Contractor," "Transit Vehicle Operator," and "Other Transit Staff," divided by VRM.	9.68E-10	**9.49E-10**	
Measure 3a—Injuries (SRRP)	This includes all injuries as defined by the NTD.	720.67	**706.25**	Based on Major events which requires immediate transport away for medical attention based one or more person.
Measure 3b—Injury Rate (SRRP)	This includes all injuries as defined by the NTD, divided by VRM.	2.09E-06	**2.05E-06**	
Measure 3.1—Transit Worker Injury Rate	This includes all transit worker injuries as defined by the NTD, including the categories "Transit Employee/Contractor," "Transit Vehicle Operator," and "Other Transit Staff," divided by VRM.	5.71E-07	**5.60E-07**	
Measure 4a—Assaults on Transit Worker (SRRP)	This includes all assaults on transit workers as defined by the NTD.	185.33	**181.63**	**Assault**: An attack by one person on another without lawful authority or permission. • An **assault on a transit worker** is a circumstance in which an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with a reckless disregard for the safety of human life, interferes with, disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker. The "Worker Assault Detail Type" is collected for Assaults on Transit Operators or Other Transit Workers: • **Physical Assault on a Transit Worker**: An assault in which the attack involves physical contact with the transit worker. This could include any physical contact with the victim from the attacker's body, a weapon, a projectile, or other item (this would also be reported as a non-major event if **no injury** occurred). • **Non-Physical Assault on a Transit Worker**: An assault in which the attack involves no physical contact with the transit worker. This could include threats or intimidation. that do not result in any physical contact with the transit worker. This event would be reported as a Non-Major incident.
Measure 4b—Rate of Assaults on Transit Workers (SRRP)	This includes all assaults on transit workers as defined by the NTD, divided by VRM.	5.38E-07	**5.28E-07**	
Measure 5—System Reliability	This includes Major Mechanical System failures as defined by the NTD.	NA	NA	Mechanical System Failures based on breakdown on revenue vehicles (not reportable unless customer are at imminent danger and/or requires customer to evacuate on the right-of-way and not from train-to-train or station platform).

*** NYCT Subways (HR) and NYCT Buses (Motorbus (MB), Commuter Bus (CB), Rapid Transit Bus (RB), Demand Response(DR)).**

**** Information provided from the National Transit Database - Safety & Security Policy Manual (January 2025 edition).**
SRRP – Safety Risk Reduction Program

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4 Safety Management Policy

This section is the statement of the safety management policy incorporating safety objectives.

4.1 Safety Management Policy Statement/Commitment to Safety

In accordance with the most recent version of NYCT Policy Instruction (P/I) 10.1 "Safety Policy Instruction", it is NYCT policy to provide a safe transportation system for our customers, safe working conditions for our employees, and adhere to responsible environmental management principles. Safety and environmental compliance are integrated elements of the NYCT operation, which is critical to providing orderly, crime-free, comfortable, convenient, and reliable transportation. The P/I provides for the establishment and implementation of NYCT's Agency Safety Plan (ASP) as it applies to the Department of Subways. All managers, supervisors, and employees must ensure that safety and environmental protection are integrated into their operations and be held accountable for the assigned responsibilities. Additionally, all NYCT employees, are expected to refuse unsafe work and alert supervision per departmental procedures, and as applicable, per their collective bargaining agreement through the Safety Rule Dispute Resolution Form (found in section 4.6.4) if faced with unsafe situations which require further discussion.

NEW YORK CITY TRANSIT
POLICY/INSTRUCTION

Subject:	Classification:	Issued:	P/I Number
NYCT SAFETY POLICY	SAFETY	October 2024	10.1.9

1.0 POLICY

It is the policy of New York City Transit (NYCT) to provide a safe transportation system for our customers, a safe working environment for our employees, and to uphold sound environmental management principles. It is recognized that safety and environmental protection are critical elements of our operation and are essential to providing clean and reliable transportation. All employees at all levels of the organization must ensure that safety and environmental protection are integrated into their operations and be held accountable for their responsibilities.

2.0 SCOPE

This Policy/Instruction applies to NYCT, Manhattan and the Bronx Surface Transit Operating Authority, MTA Bus Company, and the Staten Island Railway to establish and implement NYCT's Public Transportation Agency Safety Plans (PTASP). The PTASP incorporates components and principles of Safety Management Systems (SMS), a top-down, organization-wide, data-driven approach to managing safety risk and assuring the effectiveness of safety mitigations.

3.0 GOAL STATEMENT

Minimize public, personnel, and New York City Transit property exposure to hazards and unsafe conditions by controlling high risk events and hazards through the implementation of key proactive and measurable safety initiatives, the enhancement of employee commitment to safety, fostering a safety culture where all employees embrace safety as a core value, and optimizing the safety of our customers and the general public.

4.0 OBJECTIVES

4.1 **Accountability and Responsibility**:

A. Establish and clearly define staff, management, and supervisory accountabilities and responsibilities for developing, implementing, and enforcing NYCT's PTASP and performing SMS components and principles.

Issued By:	Supersedes:	Page:
Demetrius Crichlow Interim President	10.1.8	1 of 7

B. Develop methodologies for integrating SMS processes and activities that identify, assess, and resolve safety risks, safety deficiencies, and safety concerns.

4.2 **Agency Commitment to SMS:**

A. Support safety management through allocating appropriate resources that will result in a culture that values and fosters safe work practices, mitigates risks of injuries to our employees and customers, and encourages effective employee safety reporting and communication.

4.3 **Employee Safety Reporting Program:**

A. Establish hazard identification and analysis procedures including a safety reporting program that will ensure the early identification and resolution of safety and environmental hazards.

B. Ensure that employees who disclose a safety concern through the safety reporting program and safety call center are not discriminated or retaliated against, and safety rule violations committed by employees are addressed.

4.4 **Safety Performance Targets:**

A. Establish procedures that will ensure compliance with or that exceed all applicable federal, state, and local safety-related laws and regulations.

B. Establish safety assurance activity procedures and ensure implementation to verify that safety control measures are appropriate and implemented.

C. Continually improve upon safety performance through management processes that ensure both appropriate and effective safety management actions are taken.

D. Establish and measure NYCT's safety performance against data-driven safety performance indicators and safety performance targets.

E. Maintain a high level of ability to respond to emergency/disaster conditions.

4.5 **Communication & Training:**

A. Establish and implement safety communications to ensure that all employees are aware of the safety management policy and processes that are relevant to their responsibilities.

B. Ensure that NYCT personnel are provided the appropriate and required safety training and are competent in safety management.

5.0 RESPONSIBILITIES

All employees at all levels of the organization are accountable for the delivery of the highest level of safety performance.

5.1 It is the responsibility of the Agency President to foster a safety culture where all employees embrace safety as a core value and optimize employee and customer safety through:

A. Ensuring that safety is a core business value.

B. Ensuring that operational and maintenance activities and capital construction are supported by an appropriate allocation of resources.

C. Enforcing that safety management is an explicit responsibility of all managers and employees.

D. Ensuring the Safety Policy is appropriate and communicated throughout the agencies.

E. Ensuring that action is taken to maintain safety performance at the established program standards.

F. Assign voting delegates representing NYCT on the NYCT Transit Joint Labor-Management Safety Committee (Safety Committee).

G. Implement the safety risk mitigations for the safety risk reduction program that are included in the Agency Safety Plan as well as consider all other

safety risk mitigations recommended by the Safety Committee per the respective charter and regulation.

5.2 The Office of System Safety is responsible for developing safety and environmental policies and programs, implementing the SMS component and principles, communicating safety information, analyzing data, and monitoring safety performance. Specifically:

A. Develop the overall required standards for a formalized PTASP. This plan focuses all personnel on a common goal of preventing customer and employee accidents and/or injuries by providing safe revenue service, a safe work environment, and protecting the environment.

B. Manage the SMS implementation plan by ensuring the effective execution of all elements (Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion).

C. Coordinate the development of departmental Safety Goal Action Plans that outline the means by which they will implement the overall safety program set forth by the Office of System Safety (OSS).

D. Develop safety policies and guidelines to ensure compliance with federal, state, and local laws and regulations including emergency response.

E. Maintain safety documentation for required time periods.

F. Direct and facilitate hazard identification, safety risk analysis and assessment, and the development and implementation of controls and corrective actions.

G. Provide technical safety services in the areas of hazard analysis, asbestos and lead management, environmental management, industrial hygiene, fire safety, safety engineering, accident investigation, and near miss incident investigation.

H. Develop an effective safety reporting program.

I. Promote a positive safety culture.

J. Monitor operating and support department implementation and enforcement of safety and environmental requirements.

K. Review PTASP implementation.

L. Report safety performance and any requirements for improvement to the executive level.

5.3 Department/Division heads are responsible for the implementation and enforcement of the PTASP and the SMS plan components as they are developed within their organizations. Specifically:

A. Direct and facilitate high-risk hazard identification, the development and implementation of control measures to mitigate them and monitor the implementation and the effectiveness of control measures.

B. Demonstrate that everyone must perform every task in the safest manner possible via their actions and during discussions with managers, supervisors, and employees.

C. As part of the SMS plan, develop safety performance objectives (leading indicators) and safety performance targets to measure and continually improve safety performance.

D. Audit the implementation of Departmental/Divisional inspection and maintenance programs.

E. Establish and track the status of employee safety, customer safety, and environmental goals that focus on preventing accidents and protecting the environment in areas under their jurisdiction.

F. Establish and maintain programs to achieve employee safety, customer safety, and environmental compliance goals.

G. Report and thoroughly investigate all accidents and environmental incidents and develop corrective actions to prevent recurrence.

H. Develop, implement, and document regularly scheduled inspections of customer and employee environments.

I. Develop and implement a tracking system to record the implementation of all corrective actions necessary to remedy identified safety, occupational health, and environmental hazards.

J. Train employees to ensure their safety and competency and to communicate safety information.

K. Include OSS in the review and communication of all changes to minimum standards for safety.

5.4 Management and supervision at all levels are responsible for:

A. Implementing and enforcing NYCT's PTASP and SMS components as they are developed.

B. Enforcing safety policies, rules, and regulations.

C. Ensuring hazard identification and control in the work environment and that the control measures are effective.

5.5 Employees are responsible for:

A. Understanding and complying with all NYCT safety and occupational health rules and regulations.

B. Reporting all unsafe acts, conditions, and environmental contaminations observed in the work environment to supervision per established protocols and rendering them safe until corrected if trained/qualified to do so.

C. Acting in the best interest of the safety of fellow employees, customers, and the general public.

D. Cooperating and communicating to enhance the safety of all employees, customers, and the general public.

NEW YORK CITY TRANSIT
POLICY/INSTRUCTION

Subject:	Classification:	Issued:	P/I Number
NYCT SAFETY POLICY	SAFETY	October 2024	10.1.9

Approved: _____
Demetrius Crichlow
Interim President

Issued By:	Supersedes:	Page:
Demetrius Crichlow Interim President	10.1.8	7 of 7

4.2 Goals and Objectives

This ASP outlines how NYCT ensures the safety of customers, employees, and the general public; and complies with the rules, regulations and program set forth and enforced by the Public Transportation Safety Board (PTSB). ASP goals are reviewed and updated annually. The objectives of the ASP are to define safety related activities, management controls and plans, and establish a process for monitoring and assuring safety in accordance with NYC Transit Policy. The purpose of these goals and objectives is to minimize the exposure of hazards and unsafe conditions to the public, personnel, and New York City Transit property.

4.2.1 Goals

The NYC Transit safety goals are the following:

- Provide a safe, reliable, and economical transportation system.
- Reduce customer and employee accidents and injuries.
- Identify, eliminate, minimize, and/or control safety hazards and risks.
- Ensure compliance with safety, health and environmental laws, regulations, and codes.
- Maintain a high level of ability to respond to emergency/disaster conditions.
- Establish requirements, lines of authority, levels of responsibility and accountability for implementation of the Agency Safety Plan within the organization.
- Ensure that the SMS is appropriately scaled to the size, scope, and complexity of NYCT and includes Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion.

4.2.2 Objectives

The ASP goals are attained by achieving the following objectives:

- Implement and annually update the ASP.
- Enforce existing NYC Transit Rules and Regulations. Develop and enforce departmental safety rules. Implement operational General Orders and Bulletins.
- Develop and implement departmental Safety Goal Action Plans.
- Establish, implement, and evaluate maintenance and inspection programs for all DOS departments and divisions.

- Establish, implement, and evaluate a maintenance program and a pre-trip inspection program and procedures for the safe operation of revenue and non-revenue vehicles.

- Establish, implement, and evaluate procedures for facility/structure maintenance and respond to divisional requests for repairs to structures and equipment to ensure customer and employee safety while on the system.

- Develop, implement, and evaluate technical training (equipment/vehicle maintenance and operation) programs for employees, refresher courses for employees and ensure attendance of all appropriate personnel.

- Establish, implement, and update technical training programs for new technology, equipment modifications and maintenance procedures.

- Establish and implement an employee safety training program.

- Establish and implement emergency response procedures for facilities, stations, depots, equipment failures in service, collisions, derailments, fires, inclement weather, and release of hazardous materials.

- Review federal, state, and local safety and environmental regulations as well as NYC Transit operations to determine if safety Policy/Instructions should be developed. Develop and implement safety and environmental Policy/Instructions when necessary.

- Review federal, state, and local safety regulations as well as NYC Transit operations to determine the necessity of safety training and develop or revise training as appropriate.

- Investigate all fatal employee and selected customer fatality accidents, conduct Boards of Inquiry when required and develop corrective action plans or safety risk mitigations to prevent recurrence.

- Investigate fire-related incidents, near miss incidents, structural/equipment failures, subway collision/ derailment incidents and investigate and classify subway side door drag incidents. Develop corrective action plans or safety risk mitigations to prevent recurrence.

- Conduct Hazard Analyses on safety critical system/equipment and operating procedures/rule changes in accordance with established system safety principals outlined in Military Standard 882.

- Conduct industrial hygiene investigations of work sites and customer areas and identify corrective measures or safety risk mitigations according to the safety order of precedence.

- Conduct inspections of operating department work locations and the customer environment to identify hazards and resolutions.

- Conduct internal safety audits of Department of Subways operating units to ensure compliance with the Safety Plan.

- Evaluate the work and customer environment to ensure that all safety Policy/Instructions are being implemented.

- Evaluate the long-term safety and environmental compliance related initiatives included in the capital program during the capital program development phase and make recommendations to assist in the prioritization process.

4.3 Management Responsibilities for Safety

Management and supervision at all levels are responsible for the implementation and enforcement of the New York City Transit Safety Plan which includes safety policies and rules and regulations to ensure a safe work environment for their employees, a safe system for customers, and environmental protection.

To effectively implement the program, responsibilities are delegated as outlined below:

4.3.1 The Vice President, Office of System Safety is responsible for the development of safety and environmental policies and programs, specifically:

- Develop the overall required standards for a formalized ASP. This plan focuses all personnel on a common goal of preventing customer and employee accidents by providing safe revenue service and a safe work environment, as well as protecting the environment.

- Develop Safety Goal Action Plan outlines for use by each department.

- Develop safety and environmental policies and guidelines required to ensure compliance with applicable federal, state, and local regulations.

- Provide technical safety services in the areas of hazard analysis, asbestos/lead management, environmental management, industrial hygiene, fire safety, safety engineering, and accident investigation.

- Monitor operating and support department implementation and enforcement of safety and environmental requirements.

4.3.2 Department/Division Heads are responsible for the implementation and enforcement of the safety plan within their organizations, specifically:

- Establish employee safety, customer safety, and environmental goals that focus on preventing accidents and protecting the environment in areas under their jurisdiction and track the status of the goals.

- Establish and maintain safety programs to achieve employee safety goals, customer safety goals, and environmental protection.

- Report and thoroughly investigate all accidents and environmental incidents and develop corrective actions or safety risk mitigations to prevent recurrence.

- Develop, implement, and document regularly scheduled inspections of customer and employee environments.

- Develop and implement a tracking system to record the implementation of all corrective actions necessary to remedy identified safety, occupational health, and environmental hazards.

- Develop maintenance and inspection programs for rolling stock, physical plants, tracks, signals, power, communication systems, and infrastructure.

- Ensure compliance with employee technical and safety training requirements.

4.4 Safety Management Policy Communication

This section describes how the safety management policy is communicated throughout the organization.

The following are used to communicate the safety management policy:

- NYC Transit Safety Policy/Instructions are posted on the MTA Today intranet website that is available to employees.

- The current Department of Subways Agency Safety Plan (DOS ASP) is posted on MTA Today.

- Senior management meets with supervisors to communicate departmental safety goals. Supervisors meet with hourly employees to discuss these safety goals during toolbox talks and pre-job briefings.

- Bulletins, Safety Times Newsletters, Safety Talk Posters, and Safety Advisories are distributed to employees to communicate safety values, address areas of concern, or other safety information.

4.5 Authorities, Accountabilities, and Responsibilities

This section describes the authorities, accountabilities, and responsibilities of the following individuals for the development and management of the NYCT Safety Management System (SMS).

NYCT has determined that the Senior Vice President, Security and Safety, the Vice President, OSS and all unit heads reporting to the Vice President, OSS are SMS "designated personnel". NYCT continues to assure the required Public Transportation Safety Certification Training Program (PTSCTP) requirements are met by required staff.

Accountable Executive

Demetrius Crichlow, President, New York City Transit has been designated the accountable executive responsible for considering all other safety risk mitigations recommended by the Safety Committee, ensuring that any safety risk mitigations for the safety risk reduction program as outlined in the ASP are implemented and ensuring that the agency's Safety Management System (SMS) is effectively implemented, maintained, and that action is taken to address substandard performance regarding the NYCT SMS, via the document below.

METROPOLITAN TRANSPORTATION AUTHORITY

APPOINTMENT AND DELEGATION OF AUTHORITY

In accordance with 49 CFR § 673.23(d)(1) I, Janno Lieber, the duly appointed Chairman and Chief Executive Officer of the Metropolitan Transportation Authority ("MTA" or "Authority"), do hereby delegate to Demetrius Crichlow, the duly appointed President of New York City Transit Authority ("NYCT") and MTA Bus Company, the responsibilities and all actions required of the Accountable Executive for the NYCT Public Transportation Agency Safety Plan ("PTASP").

The responsibilities are to ensure the agency's PTASP and Safety Management System ("SMS") are effectively implemented and maintained, and that action is taken, if needed, to address substandard performance of the NYCT SMS. The NYCT President also must maintain a direct line reporting relationship to key NYCT staff responsible for day-to-day operations and the safety management system.

Pursuant to 49 CFR § 673.23(d)(1), I retain ultimate accountability for the transit agency's safety performance and, under 49 CFR § 673.5, the MTA Transit Asset Management Plan.

Janno Lieber
Chairman and Chief Executive Officer

Dated: February 13, 2025

Chief Safety Officer (SMS Executive)

Brian Lapp, Senior Vice President, Safety & Security is the Chief Safety Officer designated by Accountable Executive, Demetrius Crichlow, President holds a direct line of reporting to the Accountable Executive, is adequately trained (Public Transportation Safety Certification Training Program), has the authority and responsibility for day-to-day operations and its safety management system, and does not serve in other operational or maintenance capacities.

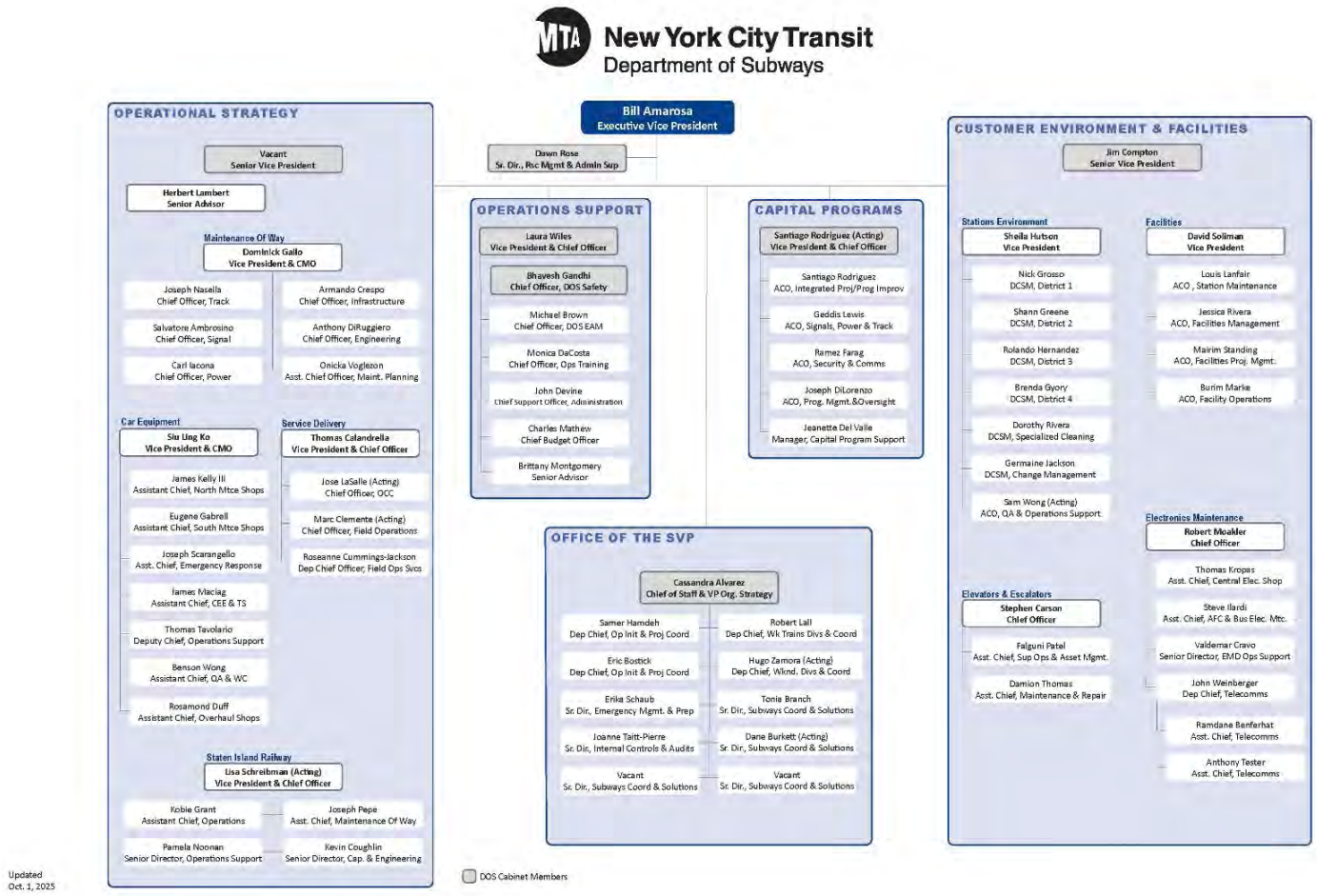
Agency Leadership and Executive Management

Bernard Jackson – Chief Operating Officer
William Amarosa Jr.- Executive Vice President, Subways
Frank Farrell – Acting Executive Vice President, NYCT Dept. of Buses/MTA Bus Co.
Brian Lapp - Senior Vice President, Safety & Security
Shanifah Rieara - Chief Customer Officer
Aliaa Abdelrahman - Deputy Chief, Labor Relations
Louis Montanti - Deputy Chief, Procurement
Theresa Murphy – MTA Deputy General Counsel
Franck Joseph - Chief of Staff
Rachel Cohen - Vice President, Paratransit
Quemuel Arroyo - Chief Accessibility Officer
David Farber - General Counsel, NYCT & MTA Bus
Lourdes Zapata – Chief Diversity and Inclusion Officer
Monica Murray - Auditor General
Timothy Doddo – Vice President, Office of System Safety
Gaby Celiba – Vice President, Security
Jamie Torres-Springer - President, MTA Construction & Development
Sarah Wyss – Acting Chief Operations Planning
Mark Roche - Deputy Chief Development Officer, MTA Construction & Development
Ausberto Huertas Jr., Vice President, Safety, MTA Construction & Development

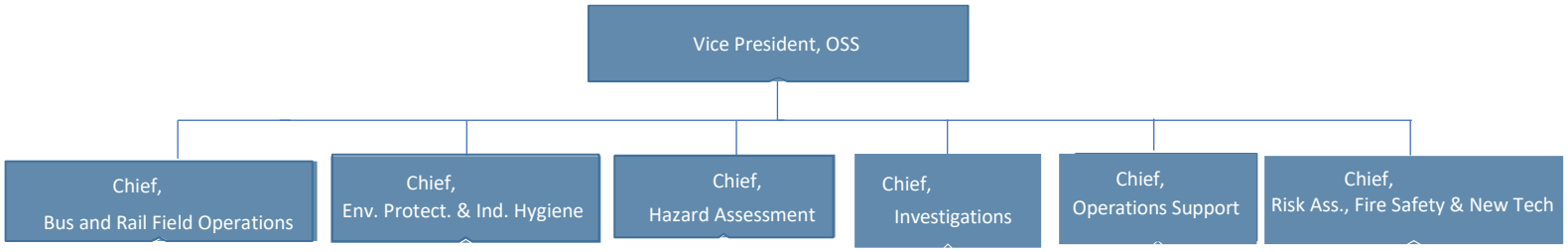
Key Staff

Department of Subways

Bhavesh Gandhi – Chief Safety Officer, Department of Subways
Trelane Spencer – Senior Director, Senior Director, DOS Safety
John Villanueva – Director, SPEED Unit
Melissa O'Connell – Senior Director, DOS Safety
Thomas Calandrella – Acting Vice President & Chief Officer, Service Delivery
Dominick Gallo - Vice President & Chief Maintenance Officer, Maintenance of Way
Sheila Hutson – Acting Senior Vice President, Customer Environment & Facilities
David Soliman – Vice President, Facilities
Siu Ko - Vice President & Chief Mechanical Officer, Division of Car Equipment
Laura Wiles - Senior Vice President, Operations Support
Bobby Lall – Acting Chief of Staff & Vice President, Organizational Strategy
Lisa Schreibman – Vice President & Chief Officer, Staten Island Railway



Office of System Safety Org. Chart



4.6 Employee Safety Reporting Program

This section describes the process and protections for employees to report safety conditions to senior management.

Employees are expected to correct all identified safety hazards, report them to supervision, and follow other departmental-specific rules and procedures for reporting and resolving them. At no time will an employee be required to conduct work that is unsafe.

4.6.1 Departmental Safety Conditions/Incident Reporting

The procedures for reporting safety incidents/conditions for NYCT employees follows a chain of command approach and reporting protocols can differ depending on departmental requirements. In general, employees are instructed to report any safety incidents/conditions to their immediate supervisors, employee in charge, and/or the appropriate command center. Additionally, for employees identified in the collective bargaining agreement this approach is outlined in the Safety Rule Dispute Resolution Form found in Section 4.6.4.

4.6.2 Employee Safety Call Center

NYCT has an Employee Safety Call Center (718-858-7272) for personnel to identify a non-emergency safety concern in the system. It does not replace departmental incident reporting protocols for unsafe conditions; but serves as a critical complement to existing procedures. The Employee Safety Call Center also provides employees with the option to anonymously report their safety concerns. Employees can also call back to the hotline to find out more information about their report with a reference number.

4.6.3 Get It Fixed Reporting Website

An additional online reporting mechanism called "Get It Fixed" located at https://mta.info/getitfixed, has been established. Get It Fixed is an online reporting portal developed for use by NYCT employees to report non-emergency issues like customer behavior, equipment issues, climate/comfort, and cleanliness among other reportable topics.

4.6.4 Safety Dispute Resolution Form

The Safety Dispute Resolution Form (SDRF) form is used by employees, as identified in the collective bargaining agreement, to formally challenge a departmental or applicable Authority wide safety rule or applicable law in effect at a job location that cannot be resolved between supervision and the employee. Additionally, all NYCT employees are expected to refuse unsafe work and alert supervision per departmental procedures, and as applicable, per their collective bargaining agreement through the Safety Rule Dispute Resolution Form (found below) if faced with unsafe situations which require further discussion.

SAFETY RULE DISPUTE RESOLUTION FORM

This section is for the employee who is alleging a violation of a departmental or applicable NYC Transit-wide safety rule or a section of an applicable law.

An employee or group of employees directed by supervision to violate a departmental or applicable NYC Transit-wide safety rule or applicable law can utilize the following procedure in order to have the situation immediately reviewed by a supervisor and manager, if necessary.

If a manager is present when the issue is raised, the alleged violation need only be reviewed by the manager.

This procedure does not supersede or replace the provisions of the Collective Bargaining Agreement.

Employee Name	
Title	Pass #
Dept/Division	
Supervisor	Pass #
Date	Time
Task Being Performed	
Location	

1. In this section the employee must specifically describe the alleged violation. Indicate or describe the rule or standard being violated.

Time:____a.m.____p.m. Date__/__/____

Employee Signature (required)

2. In this section the supervisor at the location must indicate what actions he/she took regarding the concerns that the employee has indicated. If the employee does not agree with the explanation or action, indicate what the disagreement is and refer the matter to a manager who must notify his/her divisional Control Center and advise them to immediately notify the TWU of the issue (347-916-0579). If there is no divisional Control Center the manager must notify the TWU. The manager must immediately review the matter.

Employee Agree ☐ Disagree ☐

Employee Signature

Time ____ a.m. ____ p.m. Date ____/____/_____

Supervisor Signature (required)

3. In this section a manager from the division must indicate what actions he/she took regarding the concerns that the employee indicated above. Upon explaining to the employees what changes will be made at the work site or that the challenge is not valid, the manager will direct the employee back to work. If the employee/gang refuses the manager's decision, appropriate action may be taken against the employee(s). If the supervisor/manager fails to correct a valid safety condition, appropriate action will be taken against the supervisor/manager.

Time ____ a.m.____ p.m. Date ____/____/_____

Manager Signature (required) Print Name/Pass Number

Forward completed forms to the division head, Office of System Safety (SRDRForm.OSSMailbox@nyct.com), Department of Subways (DOSSafety@nyct.com) or Department of Buses (DOBBuses-Safety@nyct.com), and TWU Director of Safety and Health (Safety.Hotline@twulocal100.org)

6/3/2024 58-12-0075

POLICY AND PROCEDURE FOR RESOLVING A SAFETY RULE DISPUTE

An employee or group of employees who allege that they have been directed by supervision to violate a departmental or applicable NYC Transit-wide safety rule or applicable law can utilize the following procedure in order to have the situation immediately reviewed by a supervisor and manager, if necessary. Supervisors and managers must have this form on site and make it available to any employee that wishes to initiate a review.

If a manager is present when the issue is raised, the disputed issue need only be reviewed by the manager.

This procedure does not supersede or replace the provisions of the Collective Bargaining Agreement.

All employees must follow these policies and procedures when they allege a violation of a departmental or applicable NYC Transit-wide safety rule or applicable law in effect at a job location.

The Safety Rule Dispute Resolution Form is provided on the reverse side to document the allegation. The form must be completed as follows:

The employee alleging the violation must fill out the employee section of the form and give it to his/her immediate supervisor. The employee must be as specific as possible if supervision/management is to conduct an appropriate review and resolve the issue as expeditiously as possible.

The immediate supervisor will discuss the specific concerns and explain the rule/law in effect at the work site. The immediate supervisor will fill out section 2 of the form and indicate whether the employee agrees with the explanation; if a change in on-site procedures is necessary, the change will be made. The employee signs that he/she agrees or disagrees with the supervisor's action in section 2 of the form. If a disagreement exists, the issue will be immediately referred to a manager for immediate resolution. The manager must notify his/her divisional Control center and advise them to immediately notify the TWU of the issue (347-916-0579).

The manager must interview the employee and the immediate supervisor prior to rendering his/her decision. If the manager can resolve the issue over the phone based on the verbal description of the events the manager's decision can be communicated verbally to the supervisor, employee, and union representative, if one is present. By the end of the shift, the manager must complete his/her section on the form and indicate whether the employee is satisfied with the explanation, if a change in on-site procedures is necessary or if a disagreement still exists. If the manager is unable to resolve the issue based on the verbal description, the manager must report to the location of the incident before rendering a decision and the form must be completed immediately.

When the manger renders the decision, he/she will direct the employee back to work. If the employee/gang refuses the manager's decision, appropriate action may be taken against the employees. If the supervisor/manager fails to correct a valid safety issue, appropriate action will be taken against the supervisor/manager.

SAFETY RULE DISPUTE DIVISIONAL REVIEW PANEL

(This section applies to supervisors and managers only)

To ensure consistent application of the safety rules or applicable law, a Divisional Review Panel will be established.

The Division Head will chair this panel and it will include a representative of the Office of System Safety.

The Panel will review all Safety Rule Dispute Resolution Forms quarterly. The Panel will also provide a written report of their meetings to the Departmental Senior Vice President and the Vice President of the Office of System Safety.

Forward completed forms to the division head, Office of System Safety (SRDRForm.OSSMailbox@nyct.com), Department of Subways (DOSSafety@nyct.com) or Department of Buses (DOBBuses-Safety@nyct.com), and TWU Director of Safety and Health (Safety.Hotline@twulocal100.org)

4.7 Safety Committee

This section outlines the roles and responsibilities of the Joint Labor-Management New York City Transit Joint Labor Management Safety Committee (Safety Committee).

Currently, the Safety Committee consists of three voting members from NYCT management appointed by: Demetrius Crichlow, President and three voting members from TWU Local 100 frontline transit worker representatives.

The Safety Committee roles, responsibilities, and procedures are as follows:

4.7.1 PURPOSE

The New York City Transit Safety Committee ("Committee" or "Safety Committee") shall fulfill its responsibilities under 49 U.S.C. § 5329(d) and 49 C.F.R. Part 673. The responsibilities outlined below fulfill the requirement under 49 C.F.R. § 673.19(c).

I. COMMITTEE MEMBERSHIP

a. The Safety Committee shall consist of at least three frontline transit worker representatives and at least three management representatives.
b. The Safety Committee must at all times consist of an equal number of frontline transit worker representatives and management representatives.
c. Management representatives shall be selected by the New York City Transit Authority ("NYCT").
d. Frontline transit worker representatives shall be selected by Transport Workers Union Local 100 ("TWU"), the labor organization representing the plurality of frontline NYCT workers.
e. NYCT and TWU shall each select one of their representatives to serve as co-chairs of the Committee (each a "Co-Chair").
f. The Co-Chairs may mutually agree to add additional Committee members, as long as the Committee remains comprised of equal numbers of management and frontline worker representatives.
g. NYCT and TWU may each replace their representatives at any time, with or without cause.
h. No representative shall receive a salary or compensation for their service to the Committee.
i. The Committee shall ensure that it documents with an accurate and up to date list of the names and contact information of all Committee representatives and related parties.

4.7.2 COMMITTEE MEETINGS

j. The Committee shall meet quarterly, and more frequently as circumstances dictate.
k. No business shall be conducted nor any vote taken without a quorum present. A quorum shall be present when there is a majority of NYCT representatives present and a majority of TWU representatives present.
l. A Co-Chair may call for an emergency meeting of the Committee. If a quorum is not present at the emergency meeting, it shall be rescheduled for the following business day.
m. The Co-Chairs shall develop the agenda for a meeting and distribute it to at least one week prior to the scheduled date of a meeting or, in the event of an emergency meeting, as soon as practicable.
n. The Committee shall cause adequate minutes to be kept of all its proceedings, which shall include records of any action taken and any dissent there on, and shall be kept for a period of at least seven years.
o. The Committee may request that any person whose advice and counsel are sought attend any meeting of the Committee to provide such pertinent information as the Committee requests.

4.7.3 KEY RESPONSIBILITIES

To fulfill its purpose, the Committee shall:

p. Review and approve NYCT's Public Transportation Agency Safety Plan ("PTASP") at least annually as required by 49 C.F.R. § 673.11(a)(5), on a timeline that permits the MTA Board to review and approve the PTASP in a timely manner.
q. Set annual safety performance targets for the safety risk reduction program as required by 49 C.F.R. § 673.11(a)(7)(iii).
r. Support the operation of NYCT's Safety Management System ("SMS") by:
    i. Identifying and recommending safety risk mitigations necessary to reduce the likelihood and severity of potential consequences identified through NYCT's safety risk assessment, including safety risk mitigations associated with any instance where NYCT did not meet an annual safety performance target in the safety risk reduction program;
    ii. Identifying safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended, including safety risk mitigations associated with any instance where NYCT did not meet an annual safety performance target in the safety risk reduction program; and
    iii. Identifying safety deficiencies for purposes of continuous improvement as required at 49 C.F.R. § 673.27(d), including any instance where NYCT

did not meet an annual safety performance target in the risk reduction program.*

s. The responsibilities and role of the Safety Committee are not intended to diminish or otherwise alter the authority of the Accountable Executive in their role under 49 U.S.C. § 5329(d) and 49 C.F.R. Part 673.

* When the Safety Committee recommends a safety risk mitigation unrelated to the safety risk reduction program, and the Accountable Executive decides not to implement the safety risk mitigation, the Accountable Executive must prepare a written statement explaining their decision. The Accountable Executive must submit and present this explanation to the transit agency's Safety Committee and Board of Directors.

4.7.4 PUBLIC TRANSPORTATION AGENCY SAFETY PLAN REVIEW AND APPROVAL

The Committee shall review, update, and approve NYCT's PTASP at least annually, ensuring its continued conformity with the requirements of federal law. Approval of the PTASP shall require a majority vote of the Committee representatives present. The annual update of the PTASP shall include, at a minimum:

t. The updated annual safety performance targets set by the Safety Committee for the safety risk reduction program pursuant to 49 C.F.R. § 673.19(d)(2).

u. Any item required by changes regulation or law that have occurred since the last PTASP update.

v. In the event of a missed safety performance target from the preceding year, safety risk mitigations that are reasonably likely to assist NYCT in meeting the safety performance target in the future.

After the Committee has approved the PTASP, the Committee shall transmit the PTASP to the MTA Board for approval.

4.7.5 SAFETY PERFORMANCE TARGETS

The Safety Committee shall set annual safety performance targets for NYCT's safety risk reduction program. The Committee shall set these targets based on a three-year rolling average of the data submitted by NYCT to the National Transit Database ("NTD"), and on the level of detail NYCT is required to report to the NTD. The Committee shall agree on the annual safety performance targets by a majority vote.

4.7.6 SAFETY MANAGEMENT SYSTEM SUPPORT

The Safety Committee shall support the operation of NYCT's Safety Management System ("SMS") by:

a. Identifying and recommending safety risk mitigations necessary to reduce the likelihood and severity of potential consequences identified through NYCT's safety risk assessment, including safety risk mitigations associated with any instance where NYCT did not meet an annual safety performance target in its safety risk reduction program.
b. Identifying safety risk mitigations that may have been ineffective, inappropriate, or were not implemented as intended, including safety risk mitigations where NYCT did not meet an annual safety performance target in its safety risk reduction program.
c. Identifying safety deficiencies for purposes of continuous improvement as required at 49 C.F.R. § 673.27(d), including any instance where NYCT did not meet an annual safety performance target in its safety risk reduction program.

A safety risk mitigation shall be considered identified and recommended by the Safety Committee when a majority of the Committee votes in favor of the action.
Where the Safety Committee identifies and recommends a safety risk mitigation related to NYCT's risk reduction program and based on a safety risk assessment, the safety risk mitigation must be included in NYCT's PTASP.

4.7.7 TRAINING

Within 90 days of appointment to the Committee, a representative must complete the following activities:

w. The SMS Awareness Course published by the Federal Transit Administration ("FTA").
x. Review the FTA's Public Transportation Agency Safety Plan ("PTASP") FAQ.
y. Review NYCT's PTASP.

By mutual consent, the Co-Chairs may revise the training activities required to be completed by new representatives or may impose additional required training on incumbent representation.

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5 Safety Risk Management

5.1 Safety Hazard Identification

The following describes the methods and processes used to identify hazards and determine the consequences of the associated hazards.

NYCT uses the hazard management process as the primary tool to ensure the safety of the operation, passengers, employees, vehicles, and facilities. It is a process whereby hazards are identified, assessed for potential impacts, and resolved in a manner acceptable to management.

Hazard identification is the initial step in the hazard management process. Within the Office of System Safety (OSS), hazard identification is achieved through conducting safety inspections, safety reviews, accident investigations, environmental compliance reviews, industrial hygiene and fire safety surveys, and at the request/recommendation of the Safety Committee. Trend analyses focus on employee and customer accidents, near miss incidents, fire incidents, and common deficiencies resulting from inspections, investigations, reviews, and surveys. Additionally, hazard assessments are conducted in accordance with Military Standard 882 and NYCT performs safety certification processes. Methods utilized in hazard identification are further discussed in the following section.

OSS may request departments to develop a corrective action plan (CAP) to minimize, control, correct, or eliminate any risks and/or hazards identified from rules noncompliance, audit findings, safety event investigation, internal safety review, or insufficient safety risk mitigation, etc.

The CAP developed will include a schedule, description of the actions that will be taken as well as those who will be responsible for the implementation. Once OSS reviews and approves the CAP, it will be sent to the PTSB for review and approval. Once approval by OSS and PTSB has been granted, all actions taken, documentation requirements, scheduled status updates etc. will be shared with the PTSB and monitored to completion by OSS. Once all the necessary outlined actions have been implemented the CAP can be closed. Once closed some CAPs may be require monitoring thru a safety assurance/review process implemented by the responsible department and monitored/audited by OSS with scheduled updates submitted to the PTSB.

5.1.1 Hazard Identification

Reviews- New construction and design reviews are conducted to ensure standards and regulations are complied with. Inspections are conducted prior to beneficial use to identify and address all hazards.

Comprehensive reviews of the implementation of the Safety Plan and Safety Goal Action Plan are performed to identify hazards and potential problem areas. Additionally, joint labor/management inspection teams conduct safety inspections on construction and maintenance projects along the right of way to identify deficiencies/hazards.

Accident Investigations – All employee and customer accidents are investigated by operating department supervision whereby the root cause of the accident is identified. More in depth investigations are conducted on serious employee accidents and customer related escalator accidents, all mainline and yard collisions/derailments, fatal employee accidents, and near miss incidents where employee contact with a train could have occurred. Other high visibility accidents and serious fires involving NYCT property are also investigated. Accident investigations are conducted in accordance with the most recent version of *Policy Instruction 10.28 Accident Investigation* which is discussed in more detail in Section 6.3 Investigations.

Surveys – Environmental and industrial hygiene site surveys are performed at operating departmental work locations and in the customer environment to identify site specific hazards. Additionally, fire safety surveys are conducted on the right of way and in stations to identify fire related hazards.

Hazard Analyses – Hazard analyses are performed in accordance with Militarty Standard 882 on significant operational changes, new or modified work practices/procedures, and selected maintenance equipment, when trends are identified through audits and observations, analysis of corrective actions, safety risk mitigations and statistics, and whenever deemed necessary by the operating departments. The analysis is conducted to identify the hazards, their severity and probability of occurrence, and identify safety risk mitigations to mitigate the hazard to an acceptable level.

Trend Analyses – common types of hazards are identified through the performance of the following trend analyses:

- Accident trend analyses are conducted by division, employee title, accident type, accident location, and injury type.
- Fire data trend analyses are conducted utilizing a Fire Incident Reporting System (FIRS) which enables a detailed analysis of the type of fire and location.
- Near miss trend analyses are conducted to identify common events and potential problem areas.
- Joint labor/management safety inspection trend analyses are conducted to identify common deficiencies.

Alternative means of hazard identification:

- Reports/complaints/inquiries from customers regarding service, equipment, and facilities.
- Reports/complaints/inquiries from employees regarding facilities, equipment, operating procedures, work locations etc.
- Reports/complaints/inquiries/violations from Department of Labor (DOL), FTA, CDC, SSOA, City and State Department of Health, regarding service, equipment, facilities, operating procedures, work locations, etc.
- Service Delivery's daily summary of significant events summarizes incidents that result in train delays. The daily summary is reviewed, and significant safety incidents are noted and provided to senior management on a daily basis.

- The DOS Safety, Safety Hazards and Risk Prevention program (SHARP) a proactive program using data from employee referrals, field observations, audits, and injury data to identify and address potential safety trends.
- Union inquiries regarding work practices, equipment, facilities, and environmental conditions.
- Supervisors Daily Checklist that identifies right of way workplace and work practice deficiencies.
- Maintenance of Way (MOW) blitz audits will occur each quarter with audit teams from various MOW sub-divisions. They will audit safety elements such as but not limited to flagging, lighting, housekeeping, job site hazards, PPE, and the review of supervision checklists.
- Interagency Emergency Preparedness Exercises are conducted. These exercises simulate various types of emergencies that involve public transportation. Various NYC emergency response agencies participate in the exercises and each exercise is critiqued to identify areas where problems were not fully addressed and require additional focus during future exercises.
- At the request/recommendation of the Safety Committee

5.2 Safety Risk Assessment

The following describes the methods or processes used to assess the safety risks associated with identified safety hazards.

5.2.1 Hazard Classification

The Office of System Safety (OSS) performs hazard analyses to identify hazards in accordance with the most recent version of Military Standard 882. This methodology determines hazard classification by assessing the severity (effects) of the hazard and the probability (likelihood) of hazard occurrence.

OSS identifies the potential effects of hazards to determine the appropriate severity category as defined in Table 5-1:

SEVERITY CATEGORIES		
Description	**Severity Category**	**Mishap Result Criteria**
Catastrophic	1	Could result in one or more of the following: death, permanent total disability, irreversible significant environmental impact, or monetary loss equal to or exceeding $10M.
Critical	2	Could result in one or more of the following: permanent partial disability, injuries or occupational illness that may result in hospitalization of at least three personnel, reversible significant environmental impact, or monetary loss equal to or exceeding $1M but less than $10M.
Marginal	3	Could result in one or more of the following: injury or occupational illness resulting in one or more lost workday(s), reversible moderate environmental impact, or monetary loss equal to or exceeding $100K but less than $1M.
Negligible	4	Could result in one or more of the following: injury or occupational illness not resulting in a lost workday, minimal environmental impact, or monetary loss less than $100K.

Table 5-1: Severity Categories

OSS assesses the likelihood of a mishap occurring to determine the appropriate probability level for a given hazard at a given point in time as defined in Table 5-2.

PROBABILITY LEVELS				
Description	**Level**	**Individual Item (Qualitative Analysis)**	**Fleet/Inventory* (Qualitative Analysis)**	**Quantitative Analysis**
Frequent	A	Likely to occur often in the life of an item	Continuously experienced.	Probability of occurrence greater than or equal to 10^{-1}.
Probable	B	Will occur several times in the life of an item	Will occur frequently.	Probability of occurrence less than 10^{-1} but greater than or equal to 10^{-2}.
Occasional	C	Likely to occur sometime in the life of an item	Will occur several times.	Probability of occurrence less than 10^{-2} but greater than or equal to 10^{-3}.
Remote	D	Unlikely, but possible to occur in the life of an item	Unlikely but can reasonably be expected to occur.	Probability of occurrence less than 10^{-3} but greater than or equal to 10^{-6}.
Improbable	E	So unlikely, it can be assumed occurrence may not be experienced in the life of an item	Unlikely to occur, but possible.	Probability of occurrence less than 10^{-6}.
Eliminated	F	Incapable of occurrence within the life of an item. This category is used when potential hazards are identified and later eliminated.		

Table 5-2

*The size of the fleet or inventory should be defined.

Assessed risks are expressed as a Risk Assessment Code (RAC) which is a combination of one severity category and one probability level such as 1A as the combination of a Catastrophic severity category and a Frequent probability level. Table 5-3 assigns a risk level of High, Serious, Medium, or Low for each RAC.

RISK ASSESSMENT MATRIX					
PROBABILITY		**SEVERITY**			
		Catastrophic	Critical	Marginal	Negligible
		(1)	(2)	(3)	(4)
Frequent	(A)	High	High	Serious	Medium
Probable	(B)	High	High	Serious	Medium
Occasional	(C)	High	Serious	Medium	Low
Remote	(D)	Serious	Medium	Medium	Low
Improbable	(E)	Medium	Medium	Medium	Low
Eliminated	(F)	Eliminated			

Table 5-3: ***Risk Assessment Matrix***

Categorizing the hazards as depicted in the table allows for the hazards to be prioritized for safety risk mitigations. Categorization may be based on severity since not all hazards are of equal magnitude or criticality as the anticipated consequences of hazardous events may be minimal, while in others it could be catastrophic. Hazard categorization also involves the determination of the likelihood of a hazardous event occurring. The likelihood of occurrence can be assigned in non-numeric (qualitative) or numeric (quantitative) terms.

5.3 Safety Risk Mitigation

The following describes the methods or processes used to identify mitigations or strategies necessary as a result of safety risk assessment.

5.3.1 Hazard Resolution

The hazard resolution for each risk level as determined in the Hazard Assessment Matrix is as follows: high hazards are unacceptable, serious hazards are undesirable and require a management decision to reduce/accept the hazard, medium hazards are acceptable with review by management, and low hazards are acceptable without review by management.

Therefore, high hazards may require immediate safety risk mitigation, serious hazards would require a management decision, and medium hazards requiring management review would have a lower priority. When efforts to eliminate a hazard are not feasible, its resolution may be a result of mitigating the risk to an acceptable level.

In addition to recommendations that result in conducting a hazard analysis, OSS makes recommendations to resolve or minimize the risk of hazards identified as a result of inspections, surveys, investigations, reviews, trend analysis etc. The recommendations are submitted to Department of Subways (DOS) for action. OSS maintains recommendation tracking databases whereby all recommendations are logged and tracked until safety risk mitigations are implemented and the hazard is resolved and tracked to closure.

OSS may also request departments to develop a corrective action plan (CAP) to minimize, control, correct, or eliminate any risks and/or hazards identified from rules noncompliance, audit findings, safety event investigation, internal safety review, or insufficient safety risk mitigation, etc.

The CAP developed will include a schedule, description of the actions that will be taken as well as those who will be responsible for the implementation. Once OSS reviews and approves the CAP, it will be sent to the PTSB for review and approval. Once approval by OSS and PTSB has been granted, all actions taken, and documentation requirements, etc. will be shared with the PTSB and monitored to completion by OSS. Once all the necessary outlined actions have been implemented the CAP can be closed. Once closed, some CAPs may require monitoring thru a safety assurance/review process implemented by the responsible department and monitored/audited by OSS.

The Safety Risk Management process is also used when developing new projects and system modifications. First, hazards are identified and documented in Engineering Change Requests (ECRs) or other official correspondence. Second, the proposed modification and its associated risk assessment is performed by the system supplier, NYCT, and the NYCT-Independent Safety Assessor. Third, risk mitigation techniques such as new and additional training, and changes to maintenance operational practices are created to address any possible procedural impacts and safety hazards. Finally, the NYCT System Safety Certification Board (SSCB), comprising of senior NYCT representatives from various departments discuss, review, and oversee the entire process.

5.3.2 Coordinating with the State Oversight Agency

When a hazard analysis is conducted for conditions or events, the results of the analysis are submitted to and reviewed by the Vice President of OSS. If the Vice President determines that the condition is an unacceptable hazard and catastrophic in nature, the hazard will be reported to the state oversight agency (PTSB).

In addition to the hazard analyses, the recommendations that result and their status are provided to the PTSB for the following:

- Joint NYCT/TWU/SSSA Track Safety Task Force summary (Quarterly Submissions)
- Collision, Derailment, and Employee Accident Board of Inquiry Investigations (Major Incident Investigation follow-up report submitted quarterly)
- Safety Plan Reviews (submitted quarterly)
- Near miss/close call recommendations (submitted quarterly)

5.4 Safety Certification

The purpose of safety certification at NYC Transit is to ensure that hazards and safety concerns are adequately addressed prior to the initiation of passenger operations for new starts, such as Communication Based Train Control (CBTC), new rail lines, extensions to existing rail lines, and new rail vehicles, excluding functionally similar replacements at NYC Transit. NYCT will solicit input from appropriate frontline worker representatives with jurisdiction over the respective areas of operation or maintenance to ensure safety issues are addressed in the safety certification process. Safety certification is the process whereby hazards are identified, assessed, prioritized, resolved, accepted, and tracked. This process supports the consideration of safety during all activities of the dynamic and evolving project.

The contractor has fundamental responsibility for safety of the project and is required to have a safety assurance process that is directed to meeting the safety requirements defined in the contract for the project. That process, defined in the contractor's safety plan, involves activities directed to designing safety into the project/system and demonstrating safety via conducting hazard and safety analyses, inspections, testing and the performance of a quantitative risk assessment on the system. The contractor's safety assurance process forms an integral part of the safety certification program.

CBTC safety certification process includes the following:

- Development, of a Certifiable Items List (CIL) that defines the items that require certification. These activities include the identification of Safety Certifiable Items (SCIs) that are primarily based on the hazards that have been identified and documented in the CBTC Hazard Log.
- Documentation of the SCIs in the CIL which includes references to relevant safety requirements and identification of related safety evidence for each item such as results of safety hazard analyses, safety related verification, validation results such as analysis and test reports, requirement specifications, certification/safety reports, operating and maintenance procedures, and training.

- Assessments of the aforementioned documented safety evidence of SCI's are conducted by NYCT participating representatives and third parties. These assessments include document reviews, verification of system design, operating and maintenance procedures, training, and other aspects.
- Safety evidence produced from the safety certification process is submitted to the System Safety Certification Board for certification. When approved by the Board, the process is completed by the preparation of a Final Safety Certification Report by NYCT and the consultant to document final safety certification status.

New rail vehicle safety certification process includes the following:

Design

- Contractor submits a System Safety Plan for the vehicles that complies with MIL-STD-882 NYCT with a specified safety analyses for approval.
- Design details are sent to the NYS PTSB for their information and the Project Manager will address any comments from the NYS PTSB with the Contractor.
- The Project Manager sends correspondence dealing with safety critical matters to OSS for review and comment and invites representatives from OSS to attend design reviews.
- System Integration – Contractor is responsible to achieve system integration during the design, which includes operations, monitoring and diagnostics, safety, reliability, and electromagnetic compatibility.

Manufacturing

- Production Management – First Article Inspection (FAI), the first production piece is inspected to verify the design is compliant with specifications. When completed, the manufacturer is given release to produce components/system.
- Quality Audits, to confirm that major components are manufactured within specifications and quality guidelines.
- Inspections are performed to ensure sub-contractors are in compliance with specifications. Pre-shipment inspections, resident consultant inspections, and hold point inspections are performed to verify manufacturing process.
- Conformance testing to verify the production process supplies a product that meets the contract specifications and performance requirements.
- Safety – the contractor is required to submit a Safety Plan to NYCT for review and approval to meet requirements and guidelines of the Authority.
- Change Order Control, the process outlined by NYCT to allow change orders during the manufacture process.

Testing

- Acceptance Location – After delivery, the cars will be unpacked and transferred to the shop designated by DCE. At this location the Contractor will perform acceptance testing.
- Inspection – new cars are inspected for shipping damage.
- Car Acceptance – each car will be examined and analyzed in accordance with established New Car Procurement Quality Procedure to ensure safety and conformance to the technical specification.
- Following acceptance testing, cars will be officially released to passenger service by the Assistant Chief Mechanical Officer, Car Equipment Engineering & Technical Support (ACMO, CEE & TS) and transferred to the maintenance shop.

Activation (Startup)

- The contractor will supply spare parts, special tools, and test equipment to facilitate maintenance and repair.
- Training – Maintenance personnel, train operators, and conductors will be trained using training materials provided by the contractor in accordance with the specifications.
- Manuals – to facilitate operations, maintenance and repair of the contract vehicles, the contractor will provide all of the necessary manuals.
- Acceptance – When a new car has passed all required acceptance testing and inspections, the Project Manger signs a letter of acceptance, which includes any issues which remain open on the cars and states the contractor will close these open items.
- Scheduled Maintenance Inspection - Upon completion of the acceptance testing, the car is transferred to the designated maintenance shop and released to that shop for pre-service inspection. Upon the completion of the inspection, the Project Manager is notified, and the car is entered into the NYCT maintenance tracking system.
- Release – Upon completion of the Scheduled Maintenance Inspection and acceptance of the car by the Project Manager, the ACMO, CEE & TS releases the car for normal operations in passenger service.

5.5 Emergency Management Program

The identification of possible emergencies and the development of mitigation plans are critical to New York City Transit's (NYCT) mission for providing safe, reliable mass transportation for its customers. Through years of experience with incidents, drills, and by way of a cooperative effort with local agencies, NYCT has developed procedures for responding to and recovery from emergencies. The agency has taken an all-hazards approach to its planning in order to ensure preparedness for all potential/foreseeable incidents.

NYCT service restoration will be coordinated by Department of Subways (DOS), Department of Buses (DOB), MTA Construction & Development (C&D) and other key agencies, State, and City stakeholders. NYCT's goal is to return to normal operating conditions at the earliest possible time upon confirmation of the safety of the infrastructure and equipment. NYCT's service restoration will

factor in the variable conditions of an event, including security sweeps/searches, safety checks, equipment testing and other necessary activities to ensure the safety of our system, staff, and Transit customers.

While the wellbeing of customers and employees is the primary concern, continuity of operations remains a vital component of NYCT's overall emergency management program. Accordingly, emergency plans for events that have a potential for shutdown of service developed by the DOS shall include a section on restoration of subway and bus service following an event resulting in a full or significant loss of service.

The Office of System Safety (OSS) is responsible for responding to emergencies involving subway collisions, derailments, subway/bus fires (which are deemed significant), releases of hazardous materials (depending on the substance and quantity), and employee fatalities. During and immediately following actual emergencies, OSS evaluates the effectiveness of existing emergency response procedures and considers changes or improvements. Collisions, derailments, employee fatalities, and incidents resulting in passenger injuries/fatalities are investigated by the New York State Public Transportation Safety Board (NYS PTSB) and the National Transportation Safety Board (NTSB) at their discretion. Investigation findings, including evaluations of emergency response efforts and subsequent recommendations are then forwarded to OSS. OSS then provides responses to PTSB and NTSB recommendations and implements corrective measures as required.

Coordinated Schedule

Representatives from NYCT's OSS, Department of Subways (DOS), and Operations Planning meet with New York City's Office of Emergency Management (OEM), the New York City Fire Department (FDNY), and New York City Police Department (NYPD) to discuss emergency preparedness for the subway. These meetings are used to refine and further develop notification and communication procedures between agencies; both during and prior to incidents. These meetings are also used for planning of incidents affecting the City of New York that require the support of NYCT resources. NYCT is an active participant in the City's Hurricane and Coastal Evacuation plans.

NYCT has liaisons for the FDNY and NYPD and participates in quarterly planning meetings coordinated by OEM. Meetings are also held between DOS, FDNY, NYPD & OEM to discuss response procedures during emergencies affecting the subway system. During these meetings, protocols are established for the notification of outside agencies and communication protocols during subway-related emergencies.

Whenever NYCT's Emergency Response Plan (ERP) is revised, meetings are held to discuss proposed changes and revisions to existing protocols and procedures. Meetings are held following major incidents in order to discuss/evaluate agency responses and plan future 'Interagency Emergency Planning Exercises'. In addition, throughout the year NYCT and any of the outside agencies can request a meeting to discuss/clarify protocols which may lead to revisions to policies and procedures.

Emergency Preparedness Exercises & Meetings with External Agencies

NYCT conducts four 'Interagency Emergency Preparedness Exercises' annually. The exercises can include participation from the FDNY, NYPD, the NYC OEM, MTA Police, Red Cross, and other City, State and Federal Agencies that would typically take part in responding to an actual incident as time and resources allows for each agency. Following the 'Interagency Emergency Preparedness Exercises', critiques are held to discuss the response to, and actions taken during each exercise. After-Action Reports are prepared in order to detail the exercises and action items are then communicated to the appropriate department(s) and/or agencies so that they may be properly addressed. During the course of the year NYCT also participates in citywide drills coordinated by OEM.

Following a major incident impacting NYCT's subway system, any participating agency may request a critique to discuss the event. Following the conclusion of the critique(s), After-Action Reports are prepared to document actions taken during the event and to decide if revisions to response policies or protocols are necessary.

Policy Instructions and Procedures

NYCT procedures for responding to emergencies are outlined in various Policy Instructions (P/Is) maintained and distributed by OSS. Each P/I is specific to relevant emergency situations and explicitly outlines protocols to be followed. P/Is associated with emergency response include the most recent versions of: "Procedures for Response to NYCT Rapid Transit Emergencies" (P/I 10.32); "Building Evacuation Procedures" (P/I 10.3); Emergency Closure of Station Facilities (P/I 10.31); Infection Control Policy (P/I 10.15); and NYCT's Pandemic Plan (P/I 10.37). OSS also evaluates the implementation of the aforementioned P/Is. Additionally, DOS develops and maintains the following response plans: DOS Hurricane Master Plan, Hurricane Divisional Plan, SIR Hurricane Plan, Heat Emergency Plan and Winter Operations Master Plan.

Contractors are responsible for developing Emergency Response/Contingency Plans for projects for which they have been awarded. In addition, through the capital plan, departmental projects and other safety initiatives, fire protection and life safety systems are installed in new and renovated facilities to minimize the effect of incidents. Materials used in both surface and subway vehicles are selected to minimize the spread of fire and smoke during emergencies and buses are equipped with onboard fire extinguishing systems to quickly extinguish engine compartment fires before they can endanger customers.

OSS coordinates changes to emergency response policies and procedures. When changes to procedures are proposed, the appropriate in-house resources and the agencies affected will be convened to review the proposed change(s). A thorough review of the change and its impact on emergency response will be undertaken. After the review process is completed and a decision is made regarding any proposed changes, they will be formalized in writing and distributed to all of the appropriate departments and outside agencies. During the next review cycle of the ERP, all changes will be incorporated.

All DOS divisions observe the most recent versions of the following emergency management policies:

- NYCT's Emergency Response Plan (ERP) for subway related incidents – P/I 10.32
- Building Evacuation – P/I 10.3
- Emergency Closure of Station Facilities – P/I 10.31
- Pandemic Plan – P/I 10.37
- Infection Control Policy - P/I 10.15

Employee Emergency Management Training

NYCT has identified those employees who may be involved in emergency incidents and provided them with Fire and Passenger Evacuation Training (FPET). The training is given when the employee enters the appropriate title, and every three to six years (title dependent) thereafter. The FPET covers use of fire extinguishers and how to manage a train evacuation during an emergency. The training stresses the need to control customer panic, communicate with the OCC and when to make the decision to evacuate. Essentially all DOS employees who work in the field are required to attend this training.

All new NYCT employees attend an awareness class to familiarize them with identifying suspicious people, activities, and packages, with the need for the employees to serve as the eyes and ears of the agency. All NYCT Department of Subways employees with field responsibility are required to take some level of National Incident Management System (NIMS) training. New DOS employees attend NIMS awareness training understanding how NYCT fits into the incident management structure. As employees progress to managerial positions, they are required to take the following training:

- IS-700 – All levels of Management
- ICS-100 – All levels of Management
- ICS-200 – All levels of Management
- ICS-300 – Middle and Senior Managers
- IS-800 – Executive Level
- ICS-400 – Senior Managers

The classes cover an introduction to NIMS and the Incident Command System to the advanced Incident Command System activities. Additionally, NYCT in cooperation with the Transport Workers Union (TWU) Local 100, has developed training for employees in dealing with Weapons of Mass Destruction (WMD) type incidents. WMD training is limited to employees responsible to responding to incidents involving releases of hazardous materials.

Members of NYCT's volunteer Hazmat Team receive OSHA 40 Hour HAZWOPER[1] training upon induction and refresher training annually, at a minimum.

Familiarization Training/Interagency Drills

NYCT conducts four interagency emergency preparedness exercises each year which provide an opportunity for local agencies, who have the time and resources, to familiarize themselves with NYCT facilities and equipment. The exercises also give external agency personnel the opportunity to become familiar with communication and power removal/restoration procedures. NYCT has assisted both the FDNY and NYPD in developing training centers for their respective agencies that they use to provide training to a wide range of personnel on both the subway and surface operations and environment. The FDNY has developed PowerPoint presentations that provide equipment familiarization for both bus and train cars and have constructed a train simulation tunnel for hands on subway training. The NYPD has train cars at their training center for hands on tactical training in extrication, hostage, as well as WMD incidents. OSS coordinates with both agencies to provide local familiarization of NYCT subway cars and buses as well as bus depot and train yard familiarization for the local companies. When new equipment (buses and/or train cars) are procured, NYCT reaches out to the FDNY and NYPD to provide information on the changes from existing equipment and things they need to be aware of. This is an ongoing effort that is coordinated by OSS and the responsible NYCT department.

In addition, NYCT participates in familiarization drills when requested by the FDNY, NYPD and OEM.

[1] Hazardous Waste Operations and Emergency Response

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6.0 Safety Assurance

This section describes the following activities:

- Monitoring the system for compliance with procedures for operations and maintenance
- Monitoring operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended
- Conducting investigations of safety events to identify causal factors
- Monitoring information reported through internal safety reporting programs

6.1 Safety Performance Monitoring and Measurement

This subsection describes activities to monitor the system for compliance with procedures for operations and maintenance.

6.1.1 Process for Ensuring Rules Compliance

Within DOS the operating divisions employ different strategies for ensuring compliance with the rules that govern all employees and their divisional rules and procedures. Operating supervisors are responsible for ensuring their employees are performing their duties in compliance with the Safety Policy/Instructions and other safety procedures. Checklists are used by various divisions to assist supervision. In addition, safety audits are performed by DOS safety units, DOS management, C&D Business Unit Safety, and the Office of System Safety to support compliance with safety programs.

When Contractors are working on NYCT property the contract specifications stipulate that the Safety and Security of NYCT employees and all other persons shall be the responsibility and concern of the Contractor. The Contractor shall comply with all agency safety requirements and the applicable provisions of the New York State Uniform Fire Prevention and Building Code, Occupational Safety and Health Administration (OSHA) 29 CFR 1926 and any inferences to 29 CFR 1910, the Environmental Protection Agency (Federal), Department of Environmental Conservation (State), Department of Environmental Protection (City), the National Fire Protection Association (NFPA) including National Electrical Codes (NEC), the Building Code of the City of New York – Chapter 33 and Electrical Codes, NYC Noise Control Code and DEP construction noise monitoring and mitigation, the New York State Code Rule 753 also known as New York State Industrial Code 53, and all other applicable rules and regulations' latest revision.

All of the Safety Rules and Regulations cited in the contract specification, all other rules and/or regulations relating to safety, and any other provision dictated by safety considerations, shall be strictly enforced by the Project Chief Executive Officer (PCEO). The PCEO and the Project Management Team (PMT) are the first line of enforcement in forestalling all violations of any regulated safety considerations and verifying that the Contractor is maintaining a safe work site. Below are the processes for ensuring rules compliance.

6.1.1A Division of Car Equipment (DCE)

As documented in the DCE Safety Goals Action Plan, ensuring adherence to safety rules is covered by a process that includes the following:

- Daily facility safety inspections conducted by supervisory employees
- DCE Central Safety Committee and shop safety committee critique of safety rules and work procedures on a routine basis and in response to specific employee accidents and safety incidents
- Quality Assurance audits are conducted semi-annually by the Quality Assurance subdivision to assess the implementation of operating and maintenance rules and procedures by employees are reported directly to the Chief Mechanical Officer. This includes site inspections conducted by managers, shop safety committee critique of supervisors' implementation of safety rules and work procedures on an ongoing basis and in response to specific employee accidents or safety incidents
- Update of the Safety Rules and Regulations Booklet for DCE employees

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6.1.1B Service Delivery

Train Service Supervisors (TSS) in Field Operations (FO) monitor the operations of Conductors, Train Operators and Tower Operators by conducting field inspections and visually monitoring employee performance. For Tower Operators, the Dispatchers also perform this function. Managers perform this function for all supervisory titles. Additionally, TSSs evaluate the performance of Train Operators and Conductors twice each pick (four times per year); Dispatchers evaluate the performance of Tower Operators twice each pick (four times per year).

Department of Subways Safety (DOS Safety) conducts Efficiency Tests designed to ensure compliance with current safety rules. Efficiency Tests measure performance in specific areas. For Train Operators, tests include, but are not limited to compliance with signal rules and yard operations. For Conductors, tests include compliance with acknowledging proper train stops at the Conductors' Indication Board and platform observation. For all employees, tests include monitoring compliance with Personal Protective Equipment (PPE) rules.

The following are the Efficiency Test Programs that DOS Safety and Service Delivery conduct for train service personnel:

- Door Operation/Platform Observation and Indication Board/Safety Glasses: Conductors will be tested for compliance with New York City Transit Rules 3.70(m), 9.01(c), 9.01(j) 9.01(l), 9.01(r); and all active FO Bulletins related to "Door Operations and Proper Platform Observations", "Acknowledging the Conductor's Indication Board" and "Personal Protective Equipment (PPE) – Safety Glasses."

- Train Operations through a Work Area (Flagging): Train Operators will be tested for compliance with NYCT Rule 3.82 and current FO Bulletins regarding "Train Operation through Work Areas."

- Train Operations in Yards: Train Operators will be tested for compliance with NYCT Rules 2.39(m), 2.39(n), 2.52(a), 2.52(g), 2.55(e), 9.02(b) and all FO Bulletins in effect pertaining to "Train Operation in Yards" and "Incomplete Moves (No Signal in Front of Switch)."

- Red Automatic Signals: With cooperation from the Division of Electrical Systems (Signals), Train Operators will be tested for compliance with NYCT Rules 2.40(h), 2.40(m), 2.40(n) and all active FO Bulletins governing "When Encountering a Red Automatic Signal."

- Distractions: All train service employees will be tested for compliance with NYCT Rules 11(e), 9.01(c), 9.02(b) and current FO Bulletins regarding "Distractions." Observations for compliance will be in effect at all times and will be part of the aforementioned test and recorded during all Efficiency testing.

- Enroute, train crews are subject to unannounced and discrete observation by Train Service Supervisors, whose primary function is to ride trains frequently, observing the manner in which Train Operators and Conductors perform their duties, and to correct any improper

actions. At terminals between trips, train crews are also subject to observation by terminal supervision, Train Service Supervisors, or Operating Managers. Train Service Supervisors, Dispatchers, and Superintendents monitor the operations of Tower Operators by visually inspecting their performance if they share the facility with the Tower Operator. At remote locations, Managers and Supervisors shall conduct field inspections of Tower Operators' operations. In yards, Train Service Supervisors, Dispatchers, and Superintendents shall monitor the operations of Tower Operators by visually monitoring yard train movements for safe operations. Additionally, TSSs evaluate the performance of Train Operators and Conductors twice each pick (four times per year); this information is entered into the Handheld Employee Evaluation Program (HEEP). Dispatchers evaluate the performance of Tower Operators twice each pick (four times per year).

- In addition, field Train Service Supervisors will perform a minimum of 20 radar checks per line each month and will inspect each Train Operator's brake handle 3 times per year.

- Managers regularly conduct random observations of supervisors at work. Formal evaluations of job performance are conducted by management at least once per pick.

6.1.1C Maintenance of Way (MOW)

Adherence is assured by daily supervisory oversight and safety audits performed by field supervisors. Supervisors conduct random audits to ensure compliance with safety rules, PPE, quality inspection of work activities and all safety and maintenance related issues. The findings are discussed and, if required, safety risk mitigations are initiated with the operating supervisor. These reports are distributed within the responsible division for further review. In addition, SMAT (Safety Management Audit Training) audits, and the Joint Safety Task Group submit their findings that are circulated throughout to the area of responsibility of the managers for review and discussion of safety risk mitigations or for additional updating to any policy if required.

6.1.1D Customer Environment & Facilities

The Division of Station Environment & Operations, Facilities, Elevator and Escalators, and Electronic Maintenance includes a wide range of job descriptions. Therefore, all employees are required to comply with any or all rules pertaining to their current job assignments.

Supervisors informally inspect the personnel in their charge during the workday. The supervisor focuses on areas, such as the availability and usage of personal protective equipment, and work procedures of personnel at the work site. Field inspections and safety violations are documented with regard to improper/unsafe work practices. Follow-up inspections are performed to ensure that a safety risk mitigation has been taken. In the event that the safety risk mitigation has not been implemented immediately, the employee may be subject to re-instruction or formal disciplinary action.

Managers regularly conduct random observations of supervisors at work.

Adherence is assured by daily supervisory oversight and safety audits performed by field supervisors. Supervisors conduct random audits to ensure compliance with safety rules, PPE, quality inspection of work activities and all safety and maintenance related issues. The findings are discussed and, if required, safety risk mitigations are initiated with the operating supervisor. These reports are distributed within the responsible division for further review. In addition, SMAT (Safety Management Audit Training) audits, and the Joint Safety Task Group submit their findings that are circulated throughout to the area of responsibility of the managers for review and discussion of safety risk mitigations or for additional updating to any policy if required.

Department of Subways (DOS) Safety participates in the enforcement of NYCT safety rules through field inspections and documents safety violations with regard to improper and unsafe work practices. The desired results are to ensure employee compliance with New York City Transit policies and an overall accident rate reduction. The inspections concentrate on, but are not limited to, personnel wearing appropriate personal protective equipment and compliance with work procedures and New York City Transit policies. In addition, the following audits/inspections are performed: Manager Safety Audit, Quarterly Safety Stand down (Facilities), Quarterly Safety Briefings, Supervisory Daily Activity Log (HVAC), Internal audit of Preventive Maintenance including logbook audit by Elevator & Escalator (E&E), and Systems Operations Telecommunication Review (Planning & Control Superintendent reviews random calls recorded on the NICE Inform System on a weekly basis and records on the Telephone Audit database).

6.1.1E Staten Island Railway (SIR)

Random reviews of employees' performance are conducted monthly to ensure compliance with applicable departmental rules and procedures. Supervisors and managers observe employees performing selected tasks by performing fitness-for-duty checks, riding passenger trains, reviewing safety procedures, checking PPE, flagging arrangements, maintenance procedures and administrative functions. The SIR Safety Committee, consisting of departmental representatives from management and labor, conduct random inspections of various SIR facilities, stations, and work sites. Completed inspection reports are reviewed for trends and occurrences that require updates, revisions, or safety risk mitigations. Negative trends are mitigated by issuance of rule revisions. In addition, Safety Culture Observation Team (SCOT) audits and Joint Track Safety Audit (monthly) are performed. OSS and SIR Safety performs monthly roadway worker protection audits. The Roadway Worker Protection (RWP) Briefing Form is reviewed during the audit.

6.1.1F Office of System Safety (OSS)

Under direction of the Accountable Executive and the Chief Safety Officer and independently of DOS, OSS is responsible for periodic field safety inspections to monitor compliance with safety rules and Safety Policy/Instructions. Joint audits with OSS, Subways Surface Supervisors Association (SSSA), and Transport Workers Union (TWU) representatives are conducted on Subway construction and maintenance projects, including the top 25 stations, to identify deficiencies in flagging, training, and equipment. Bi-annual trend analysis of the data is performed. In addition, OSS conducts annual reviews of the DOS Safety Plan and Safety Goal Action Plan (SGAP). Written reports are sent to the operating department with recommendations and corrective action when required and OSS ensures that all identified deficiencies are addressed.

6.1.2 Documentation

The divisional safety units and OSS provide documentation of audits, which includes findings and corrective actions to the management of the unit being audited. Local supervision uses various forms and checklists to document their daily auditing of work tasks, inspections of work locations and enforcing the use of personal protective equipment. The DOS Safety Goal Action Plans require managers and supervision to track the status of the implementation of recommendations.

6.1.2A Division of Car Equipment (DCE)

A Maintenance/Overhaul Shop Audit report is issued and all nonconformities are documented with a safety risk mitigation request. Safety critical findings must be corrected within 24-hours. Audit reports are closed upon verification of implementation of a safety risk mitigation plan.

6.1.2B Service Delivery

Efficiency Test results are transmitted to General Superintendents and Line Superintendents. Field supervisors and managers conduct STOP (Safety Training Observation Program) audits for Safety and SMAT (Safety Management Audit Training) audits, the results of those audits are transmitted to OSS and trend results are incorporated in the Safety Goal Action Plan.

Additionally, a systems operations telecommunication review is conducted, where the Planning & Control Superintendent reviews random calls recorded on the NICE Inform System on a weekly basis and records on the Telephone Audit database.

6.1.2C Maintenance of Way (MOW)

Audits are distributed for review throughout the department and discussed by the managers. SMAT audits are conducted monthly and the documented findings and/or corrective actions/and safety risk mitigations are also discussed. New rules and policies which are developed are distributed in bulletin form, which is required to be displayed in employee quarter facilities.

Signals Asset Management Subdivision perform logbook audits to verify approved Signals database entries.

6.1.2D Customer Environment and Facilities

Supervision conducts STOP audits for Safety and Managers conduct SMAT Audits. The results of those audits are transmitted to OSS as required and trend results are incorporated in the Safety Goal Action Plan.

Station Environment & Operations: Observations in the field are noted and transmitted to the Group Station Superintendent (GSS) and Group Station Manager (GSM) of the respective areas. Supervision conducts STOP audits for Safety and Managers conduct SMAT Audits. The results of those audits are transmitted to OSS as required and trend results are incorporated in the Safety Goal Action Plan.

6.1.2E Staten Island Rail (SIR)

Managers and SIR Safety Committee members use SIR specific forms and checklists for conducting audits and evaluations. Completed forms, reports or inspection/checklists are reviewed and evaluated monthly during staff and safety meetings. The specific forms and checklists for conducting audits and evaluations are submitted to the department heads for review to ensure compliance with applicable rules and safety risk mitigations are administered if warranted.

6.1.2F Office of System Safety (OSS)

OSS prepares and distributes regular safety reports to upper level management in an effort to ensure that they are aware of safety performance. The regular reports include monthly Employee Lost Time Accident Rate reports, periodic safety performance of NYC Transit, and review/inspection reports.

Safety Goal Action Plan (SGAP) program is used in NYCT as a means to help drive the Safety Management System (SMS) process and enhance customer and employee safety at NYCT. The SGAP program is monitored and audited by OSS. The SGAP program uses safety goals and action plans that are updated quarterly and developed by each department, with a statement of a target result and list of tasks to be achieved within a specific period of time that, when achieved, will have a positive, measurable effect on employee and/or customer safety. All SGAP quarterly updates and audit records are kept by OSS and submitted to the PTSB for review. A complete outline of the SGAP program can be found in the most recent version of P/I 10.18.

6.2 Safety Risk Mitigation

This subsection describes activities to monitor operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended. Systems operated by the Department of Subways (DOS) are subject to scheduled maintenance programs. The programs include established maintenance cycles, methods for tracking maintenance activities, and audits utilized to ensure the effectiveness of the maintenance performed.

6.2.1 Maintenance of Way (MOW) Maintenance Programs/Procedures

6.2.1A Track Maintenance

Track replacement/repair activities take place subsequent to inspection findings. As part of the track inspection process, defective rails are clearly marked on each side of the rail web and base. Evaluation of track inspection/maintenance programs is continuous, and revisions to the maintenance schedule and/or equipment specifications are implemented by management as required.

The following is the frequency of track inspections:

Track Inspection	Frequency	
	Mainline Track	Yard Track
Track Walker	Two Times Weekly with Calendar Day Interval	Monthly
Supervisory	Every 14-Days (Not less than 12 Days or more than 18 Days In Between Inspections)	Quarterly

Table 6-1: Track Section – Track Inspection

Quadrennial Track condition surveys are conducted by MOW Engineering's Track Engineering section. Track rehabilitation projects are selected and prioritized according to the findings of the Quadrennial Condition Surveys of track and switches. The surveys are conducted every four years and are primarily designed to achieve the following:

- Maintain an inventory of all the mainline track components (including their location and condition)
- Update existing 'Track Information Planning System' data
- Update the 'Track Device System' with actual measured data pertaining to track devices (panels)
- Categorize each track device/panel by its remaining useful life, thus providing the means of planning future track rehabilitation and maintenance.

Each record within the 'Condition Survey' database contains the physical description and rating of each track component in the device. The basic types of devices are classified by their geometry, tangent (straight) or curved track; switches; etc. Each basic device can be further subdivided by its type of components, condition, environment, etc. A change in any of the basic track components, its geometry or condition will generate a new device or sub-device. Environmental conditions and the geometry of the device from collected Track Geometry Car (TGC) data are also inputted. In addition, each major track component in the device is categorized and rated according to its remaining useful life.

The major track components such as ballast, crossties, tie plates and rails are rated according to its remaining useful life. Ten categories are used for rating the remaining useful life of ballast, crossties, and rails, ranging from 0 to 20+ years. Each value corresponds to the years of remaining useful life at the time of inspection. The condition of other components (such as tie plates and fasteners) is rated as 'good,' 'fair' or 'poor'.

Once the major track components have been rated, a total remaining useful life for the device can be estimated. The condition and remaining useful life of the basic track components such as crossties and ballast carry more weight in determining the overall remaining life of the device as a whole. Other components can be easily replaced or adjusted, but if the crossties and ballast have

failed then the track has little or no remaining useful life. For track reconstruction purposes, the average life of a segment of track is therefore derived by combining the remaining useful life of the ballast and crossties and the condition of the geometry and environment (dry, wet, or very wet) of the segment.

The evaluation of a device's remaining useful life starts with the expected average useful life for the type of device being inspected. The number of years that the device has been in service is compared to this average to gauge how many years of expected life remain. Current conditions of component wear and train traffic are added to the evaluation. The estimate is further reduced by such factors as poor geometry and wet environment. The net result of this process is the estimated remaining useful life of a device.

Teams of specially trained Track Engineering Supervisors perform survey studies to identify the condition of track components. Condition ratings and categorizations are "calibrated" so that all the team members and their supervision agree in the rating of the same components and track devices. The Quadrennial Condition Surveys are performed by three teams under Track Engineering's Quality Assurance & Condition Surveys group walking every foot of track along the NYCT system. Each team consists of one Track Supervisor and two track workers. The track workers assist the supervisor by flagging the trains and taking measurements while the Supervisor records all the data on a hand-held pen-based laptop computer.

The collected data is used to distinguish the areas of track requiring reconstruction from those just needing maintenance. For example, if a segment of track has good ties and ballast but the plates and rails are worn, it could be scheduled for a rail and plate renewal only, instead of rebuilding the whole track. For those track areas in need of total reconstruction, the Condition Survey data is used to prioritize which of them needs to be scheduled first, based on their remaining years of useful life. Other uses of the Condition Survey data for long-term planning of track maintenance and reconstruction are budgeting for materials and manpower, building a degradation model with the observed degradation rates from previous Condition Surveys, and monitoring the state of good repair of the track and switch systems.

6.2.1B Infrastructure Maintenance

Managers evaluate the effectiveness of the infrastructure section's maintenance program by monitoring equipment breakdowns and performing visual inspections of buildings and equipment. In addition, managers review computer printouts monthly pertaining to outstanding/open jobs as well as those which have been completed.

Professional Engineers review infrastructure inspection reports and schedule repairs accordingly. Fan plants are maintained as part of the inspection process outlined in Table 6-2.

INFRASTRUCTURE INSPECTION SCHEDULE	
DESCRIPTION	**FREQUENCY**
Tunnel Ventilation Fan Plants – Under River Tunnels	Monthly/Quarterly/Semi-Annual/Annually
Tunnel Ventilation Fan Plants - Land Tunnels	Monthly/Quarterly/Semi-Annual/Annually
Subway Emergency Exits	Every 2 Months
Vents outside stations	Annual
Standpipes* (Tunnels/Tubes)	Monthly/Quarterly/Annual/5 Year
Sprinklers (Escalators)	Annual
Tunnel Lighting	2 Years

Table 6-2: Infrastructure Equipment Inspection Schedule

*Note: Standpipe inspections involve various systems

Additionally, an audit is conducted annually by a consultant retained by the Metropolitan Transportation Authority (MTA) to evaluate the effectiveness of the inspection program. All comments by the consultant are forwarded to the Chief Infrastructure Officer.

Infrastructure maintenance intervals are outlined below:

INFRASTRUCTURE – MAINTENANCE INTERVALS		
Asset	**Maintenance Interval**	**Title Maintaining Equipment**
Deep Well Pumps	Monthly/ Quarterly/ Annual	Structure Maintainer
Tunnel Pumps	Monthly / Quarterly/ Annual	Structure Maintainer
Under River Tunnel Pumps	Monthly/ Quarterly/ Annual	Structure Maintainer
Sump Pumps	Monthly /Quarterly / Annual	Structure Maintainer
Well Point Pumps	Monthly/ Quarterly/ Annual	Structure Maintainer
Compressors	Monthly	Structure Maintainer
Ejector	Monthly	Structure Maintainer

INFRASTRUCTURE – MAINTENANCE INTERVALS		
Asset	**Maintenance Interval**	**Title Maintaining Equipment**
Pump Train	Monthly	Structure Maintainer
Fan Plants	Monthly / Quarterly/ Annual	Structure Maintainer
Tunnel Lighting	2 Year Cycle	Light Maintainer
Vents (Cleaned & Tested)	12 Month Cycle	Structure Maintainer

Table 6-3: Infrastructure Section - Maintenance Intervals

Additional Infrastructure maintenance include:

- West 4th Nights Operation Tunnel lighting including blue light two-year system wide inspections and re-lamping
- Maintenance inspections, repair and replace Fire Extinguishers system wide quarterly and annually
- Grouting leaks system wide, annual goal of 5,000 leaks
- Emergency Exit lighting as required
- Tunnel lighting as required
- Install or clean 24,000-feet of no clearance signs system wide once a year
- Inspect and repair "A" defects system wide (Bench wall, sound & tap) also support Iron dept. by chipping for column and beam repairs
- Inspect and repair "B" defects System wide (Emergency Exits)
- 1 year replace or repair 15,000 feet of handrail
- Drain cleaning using Vactron/Jetta trains and tow behind Jetta's, yearly goal 50 miles (264,000 ft) per year
- 14 tubes inspected monthly (Fire line, FX, Blue light)
- Yearly Capital track program pouring concrete or Sika 15,000 feet a year

Yards and Barns Subdivision

- Vents Inspections - 1-year cycle

6.2.1C Power (Electrical & Third Rail Operations)

The Subdivision of Power is responsible for inspecting and maintaining NYCT's power and signal systems. The Signals section's maintenance program is outlined in Table 6-6a. The Power section's maintenance activities are outlined in Table 6-7.

Power Operations perform a 6-month Field Maintenance #49 for every substation within the system. A monthly Fire Extinguisher Inspection is conducted at all occupied crew rooms and buildings. Power is responsible for recording on the Crew Quarter inspection form along with the tag of that fire extinguisher. A Monthly inspection of gantry Crane is performed with a daily inspection performed on the vehicle crane.

POWER – MAINTENANCE INTERVALS WITH GOVERNING PROCEDURES				
Asset	**Maintenance Interval**	**Title(s) Maintaining Equipment**	**Field Maintenance Instruction (FMI) Number**	**NOTES**
Above Ground Substation	Every 4 months	Power Mtr. / Helper	FMI - 2	
Underground Substation	Every 2 months	Power Mtr. / Helper	FMI - 2	
D.C. Feeder Breakers	Every 3 years	Power Mtr. / Helper	FMI – 5 or FM - 6	A substation will have either an FM5 (Panel brkr) or FM6 (Truck brkr), not both
Rectifier Control	Every 3 years	Power Mtr. / Helper	FMI - 4	
High Tension	Every 3 years	Power Mtr. / Helper	FMI - 7 / 7G & 44	
Ground Protection	Every 3 years	Power Mtr. / Helper	FMI - 67	
D.C. Bus	Annually	Power Mtr. / Helper	FMI - 28	
Battery Maintenance	Monthly	Power Mtr. / Helper	FMI - 47	
Emergency Alarm (EA) Panels	Semi-Annual	Power Mtr. / Helper	FMI - 9	
Rectifier Cooling	Annually	Power Mtr. / Helper	FMI - 42	
Supervisory Control ROOM	Monthly	Power Mtr. / Helper	FMI - 27	Added the word room to denote location
Fire Extinguishers	Bi-Annually	Power Mtr. / Helper	FMI - 49	
First Aid Kit	Annually	Power Mtr. / Helper	FMI - 20	
Rubber Gloves	Bi-Annually	Power Mtr. / Helper	FMI - 15	

***Table 6-4a*: Power Section - Maintenance Intervals**

***NOTE**: Some items listed in this Table contain "Maintenances" which play a part in some of the daily operations and functions.*

POWER – OPERATION INTERVALS WITH GOVERNING PROCEDURES			
Asset	**Operation Interval**	**Title(s) Operating Equipment**	**Field Operating Instruction (FOI) Number**
Operation Logs	Daily "24/7, 365"	Power Mtr. / Helper	FOI-800
A.G. & U.G. Substation Insp.	Every day	Power Mtr. / Helper	FOI-801
Hold-Off Record Keeping	Daily "24/7, 365"	Power Mtr. / Helper	FOI-802
A.G. & U.G. Substation Record Keeping	Daily "24/7, 365"	Power Mtr. / Helper	FOI-803
Supv. & Relay Battery Record Keeping	Daily "24/7, 365"	Power Mtr. / Helper	FOI-804
SCADA Remote Rectifier Load Measuring	Every hr. "off peak" / half hr. "on peak"	Power Mtr. / Helper	FOI-805
High Tension Fdr. Grounding	As required	Power Mtr. / Helper	FOI-878
Battery Insp./Sched.	Monthly	Power Mtr. / Helper	FMI-47 / FMI-48
Emergency Alarm (EA) Testing	Monthly	Power Mtr. / Helper	FOI-818 / FOI-830
Daily Summary	Daily "24/7, 365"	Power Mtr. / Helper	FMI-17

***Table 6-4b**: Power Section - Operation Intervals*

***NOTE**: Some items listed in this Table contain "Maintenances" which play a part in some of the daily operations and functions.*

6.2.1D Division of Car Equipment (DCE) Maintenance Programs/Procedures

Maintenance programs for NYCT's fleet of rail vehicles are covered in work manuals for specific car classes. Each work manual is a document developed according to an official NYCT specification that explains all required maintenance activities. DCE employees at the division's 13 maintenance shops are responsible for maintaining NYCT's existing fleet of rolling stock. Maintenance teams check and service/repair or replace components as necessary. Maintenance shop work falls into four major categories:

I. Scheduled Maintenance System Replacement Cycles

- Scheduled Maintenance System is a proactive maintenance program that is designed to replace components prior to their failure.
- Scheduled Maintenance System follows a periodic component renewal/replacement schedule on 4, 5, 6 and 12-year cycles that restores aging major components before failure over the useful life of a revenue car. Cycles vary and are based primarily on the car systems.

II. Scheduled Maintenance Inspections (SMI)

- DCE is responsible for inspection programs (including pre-service inspection) for both revenue and non-revenue rail vehicles. Inspection programs for revenue vehicles are covered in work manuals for specific car classes (make and model) which have been developed according to official NYCT specifications. Each work manual explains all maintenance activities required during a car's scheduled maintenance inspection (SMI) cycle. The manuals include vehicle drawings, step-by-step maintenance instructions and troubleshooting guidelines. All work manuals follow identical NYCT inspection criteria and are formatted in a similar fashion to facilitate ease of use among users.
- DCE performs scheduled maintenance inspections of non-revenue cars at the 207th Street and Coney Island Overhaul Shops and Pelham Diesel Shop (Westchester Locomotive Shop).
- The division has also developed inspection programs for a variety of other equipment located in maintenance and overhaul shops (including such items as cranes, jacks, and forklifts). DCE equipment inspection programs are conducted in accordance with OSHA and ANSI standards, as well as manufacturer's specifications, and internal DCE procedures and checklists.

III. Unscheduled Maintenance

- Performed as required on cars that have defects that resulted in a train delay or 'Request for Assistance Report' (from Service Delivery).

IV. Car Appearance/Car Washing

- Each of the maintenance shops supports an intensive Car Appearance Program ensuring that cars are equipped with correct signage, adequate lighting, and operative P/A systems. The program also includes checking the HVAC systems and doors before cars go into service.
- DCE performs an average of 4,500 car washes each week at the division's eight car wash facilities. Fifty-four car cleaning facilities (located in stations and yards) help keep cars in service, clean, and graffiti-free.

DCE overhaul shops remanufacture and repair railcar components and assemblies including electric motors, pneumatic equipment, wheels, axles, and trucks. The shops also carry out major car body repair and unscheduled large component change-outs, car painting, and special projects such as inspection and repair of historic railcars. The overhaul shops Scheduled Maintenance System work cycles include performing car body work (including new flooring, door hangers/tracks and threshold plates), battery reconditioning, and the following overhauls:

- Air brake system brake valve
- Air compressor
- Electric portion and gauging the mechanical coupler
- Master controller
- Converter
- HVAC system
- Truck frame
- Propulsion system components
- Air brake op unit valves
- Emergency magnet valve
- Load sensor valve
- C-2-W relay valve (for car classes: R142, R142A, R143, R160 and R179)
- Magnet valves (for car classes: R142, R142A, R143, R160 and R179)

DCE utilizes quality assurance (QA) audits to ensure implementation of maintenance and inspection program standards. The audits are conducted by DCE's QA subdivision - reporting directly to the division head (Vice President and Chief Mechanical Officer). DCE audit services are as follows:

I. Maintenance/Overhaul Audit Services

- Audits Maintenance and Overhaul Shop operations to determine compliance with standard operating procedures. Audits include post-inspection audits of the maintenance and repair of subway cars, as well as Scheduled Maintenance Systems and overhaul process audits. Audits are performed on an as needed basis to address concerns or issues.

II. Shop Safety and Procedure Audit Services

- Maintenance and Overhaul Shop operations are audited on an annual basis.

III. System Audit Services

- Provides Association of American Railroads (AAR) audit services for the Field Quality Assurance's Gage Maintenance unit, the Material Inspection unit, the Coney Island (C.I.) Wheel and Axle Shop, the C.I. Pneumatic Shop, and the C.I. Roller Bearing Shop. Audits are conducted annually.

IV. Facilities Maintenance Plan (FMP) Audits

- Maintenance Shop, Overhaul Shop, and Emergency Response facilities are audited on an annual basis.

Scheduled maintenance of DCE shop equipment is often conducted in conjunction with inspection cycles. DCE's scheduled maintenance cycles for shop equipment are outlined in Table 6-5. Inspections are documented in the shop's Computerized Maintenance Management System (MP2). Refer to document MCD 12-01, revision A (Page 6-58).

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ASSET	RESPONSIBLE PARTY	DAILY	WEEKLY	MONTHLY	QUARTERLY	SEMI - ANNUALLY	ANNUALLY	TITLE OF MAINTAINER	COMMENTS	DOCUMENTATION
AERIAL WORK PLATFORMS,	DCE	√		√				HOURLY AND APPROVED BY SUPERVISOR	Performed In-House / or By Contractor	System Work Order for FMP Facilities/ Contractor Service Invoice for Non-FMP
AIR COMPRESSOR	DCE					√	√	HOURLY AND APPROVED BY SUPERVISOR	Performed In-House / or By Contractor	System Work Order for FMP Facilities/ Contractor Service Invoice for Non-FMP
BELT SANDING MACHINE & DUST COLLECTOR	DCE			√				HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
CLEANING MACHINE, STEAM	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
CAR WASH	DCE	√		√		√	√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
CRANE & HOIST	DCE	√		√			√	HOURLY AND APPROVED BY SUPERVISOR	Performed In-House / or By Contractor	System Work Order for FMP Facilities / Contractor Service Invoice for Non-FMP
DRILL PRESS	DCE			√		√		HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
EYE WASH & EMERGENCY SHOWER	DCE		√	√			√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities/ Manual Service Request for Non-FMP
FIRE EXTINGUISHER	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
FORKLIFT	DCE	√						HOURLY AND APPROVED BY SUPERVISOR	Performed In-House / or By Contractor	System Work Order for FMP Facilities / Contractor Service Invoice for Non-FMP
FUME EXTRACTOR	DCE			√		√		HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP

Table 6-5 ***DCE Maintenance Schedule for Shop Equipment***

ASSET	RESPONSIBLE PARTY	DAILY	WEEKLY	MONTHLY	QUARTERLY	SEMI - ANNUALLY	ANNUALLY	TITLE OF MAINTAINER	COMMENTS	DOCUMENTATION
GRINDERS	DCE			√				HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
HIGH PRESSURE WASHER	DCE						√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
HORIZONTAL BAND SAW	DCE			√		√		HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
HYDRAULICS LIFTS, & JACKS	DCE	√						HOURLY AND APPROVED BY SUPERVISOR	Performed In-House / or By Contractor	System Work Order for FMP Facilities / Contractor Service Invoice for Non-FMP
INDUSTRIAL VEHICLE	DCE			√	√	√	√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
LATHE	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
MULTI-PROCESSOR WELDER	DCE				√	√		HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
MULTI-PURPOSE SPREADER	DCE						√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
MILLING MACHINE	DCE			√				HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
SCRUBBER, FLOOR	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
SCRUBBER, RIDE-ON	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP

Table 6-5 ***DCE Maintenance Schedule for Shop Equipment (Continued)***

ASSET	RESPONSIBLE PARTY	DAILY	WEEKLY	MONTHLY	QUARTERLY	SEMI-ANNUALLY	ANNUALLY	TITLE OF MAINTAINER	COMMENTS	DOCUMENTATION
SCRUBBER, WALK-BEHIND	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
SWEEPER, RIDE-ON FLOOR	DCE			√		√	√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
SWEEPER, WALK-BEHIND FLOOR	DCE			√		√	√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
TABLE SAW	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
TANK (AST 385 GALLON WASTE OIL)	DCE			√				HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
3rd RAIL TROLLEY & AUX. BUGS CONTROLLER	DCE	√						HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
VERTICAL BAND SAW	DCE			√		√		HOURLY AND APPROVED BY SUPERVISOR		System Work Order for FMP Facilities / Manual Service Request for Non-FMP
WHEEL TRUING MACHINE	DCE		√	√		√		HOURLY AND APPROVED BY SUPERVISOR	Performed In-House / or By Contractor	System Work Order for FMP Facilities / Contractor Service Invoice for Non-FMP

Table 6-5 ***DCE Maintenance Schedule for Shop Equipment (Continued)***

6.2.1E Signals Programs/Procedures

The Subdivision of Signals is responsible for inspecting and maintaining NYCT's signal systems. The Signals section's maintenance program is outlined in Table 6-6a.

SIGNALS - INSPECTION AND MAINTENANCE INTERVALS				
Asset	**Maintenance Interval (Frequency + Tolerance)**		**Titles - Maintaining Equipment**	**Unit Codes**
	Mainline Track	**Yard Track**		
Power Operated Switch Machines	30 + 5 Days	60 + 10 Days	Signal Maintainer	0100 - 0199
Train Stops and train detection track circuits	180 + 15 Days	180 + 15 Days	Signal Maintainer	0200 - 0285
Signal Enclosures (Relay Rooms, CIR, Compressor Rooms, SPR, etc.)	30 + 5 Days	90 + 15 Days	Signal Maintainer	9900 - 9999
Relay Racks (older locations)	90 + 15 Days	90 + 15 Days	Signal Maintainer	382 - 383
Relay Racks (newer locations)	180 + 15 Days	180 + 15 Days	Signal Maintainer	382 - 383
Air Supply Compressor Plants	60 + 10 Days	N/A	Signal Maintainer	400 - 499
Air Supply Compressor Plant Heavy Maintenance (215th Street)	90 + 15 Days	N/A	Signal Maintainer	400 - 499
Contact Rail Indicators	180 + 15 Days	180 + 15 Days	Signal Maintainer	700 - 799
Storage Battery Sets	30 + 15 Days	N/A	Signal Maintainer	1100 - 1199
Annunciator	365 + 30 Days	N/A	Signal Maintainer	1500 - 1599
Code Control Systems	180 + 20 Days	N/A	Signal Maintainer	1606 - 1610, 1615, 1626
Event Recorders	180 + 20 Days	N/A	Signal Maintainer	1618 - 1625
Wheel Detectors	180 + 20 Days	N/A	Signal Maintainer	1601 - 1605

Table 6-6a: Signals Inspections and Maintenance Intervals

SIGNALS EQUIPMENT TESTS						
TEST #	EQUIPMENT TEST	TITLE OF TESTER & FREQUENCY				PROCEDURE NO. / CHECKLIST
		Maintainer	Supervisor	Manager	Max. Time Allowed Between Test	
1	SW. CC Inspection & Adjustment	60 Days	NA	NA	90 Days	7.14.033
2	CC Operated by SW. & Lock Movement	60 Days	NA	NA	90 Days	7.14.034
3	Shunt Fouling Test	90 Days	180 Days	NA	90 Days	7.14.036
4	Vital Relay	180 Days	NA	NA	2 Years	7.14.037Mo037Mo
5	Ground Test	90 Days	NA	NA	90 Days	7.14.038
6	Time Release and Timing Relay Test	1 Year	NA	NA	1 Year	7.14.039
8	Track Circuit & Track Wire Integrity Test*	180 Days	N/A	N/A	180 Days	7.14.057
9	Mechanical Locking Test	NA	2 Years	NA	2 Years	7.14.041
10	Approach Locking Test	NA	2 Years	NA	2 Years	7.14.042
11	Time Locking Test	NA	2 Years	NA	2 Years	7.14.043
12	Route Locking Test	NA	2 Years	NA	2 Years	7.14.044
13	Indicating Locking Test	NA	2 Years	NA	2 Years	7.14.045
14	Traffic Locking Test	NA	2 Years	NA	2 Years	7.14.046
15	Internal switch circuit controller & adjustment Test (Point Detection)	60 Days	NA	NA	90 Days	7.14.047
16	Valve, Lock & Magnet Test	60 Days	NA	NA	90 Days	7.14.048
17	Cross Protection Test (polar relays)	60 Days	NA	NA	90 Days	7.14.049
18	Mainline Switch Locking & Adjustment Test	30 days	NA	NA	30 days	7.14.050
18	Yard Switch Locking & Adjustment Test	90 Days	NA	NA	90 days	7.14.050
19	Switch Restoring Feature Test (Electro Pneumatic Switches)	60 Days	NA	NA	90 Days	7.14.051
20	Movable Bridge Lock Test	30 days	NA	NA	1 Year	7.14.052
21	Roadway Element (Train Stop) Test	30 days	NA	NA	30 days	7.14.053
200	Inspect each device under their area of responsibility	NA	1 Year	NA	1 Year	7.14.056

**Note - Test #7 and #22 have been combined into test #8 and have been removed from the table.*

Table 6-6b: Signals Equipment Tests

Maintenance supervisors review reports from the Signals database related to inspection, maintenance and testing for upcoming and overdue Signal equipment. The Signals database generates the work orders. Supervisors prioritize the overdue work based on the criticality of work and overdue period along with accessibility of track. Test maximum time allowed is based on Federal Railroad Administration guidelines and best practices.

Signal inspection, maintenance and testing reports are generated and reviewed by management. These reports along with recommended action are discussed in Signal Management bi-weekly meetings.

SIGNALS – WORK ORDER PRIORITY LIST			
PRIORITY NO.	**PRIORITY DESCRIPTION**	**REPAIR INTERVAL**	**DAYS DUE**
1	Potential false proceeds, emergencies, fires, floods, derailments, associated damages.	Immediate	0
2	Temporary track wires.	1 month	30
3	Cables & wires (vital circuits); install ties, replace damaged cable supports, renew switch movements, frame/install switch ties, replace stop ties, broken or hanging messenger.	12 months	365
4	Cables & wires (non-vital circuits); cable jacket deterioration, switch cradles, hand throw switch lights, replace flashboards, smoke detectors, broken i cases, ladders, signal component relocations.	12 months	365
5	Signal upgrades; equipment case renewals, power cable replacement, snow melters, air line, joints, brackets, power supplies.	24 months	730
6	Signal structural; re-piping, cables without spare wires, blocks, brackets, shock mounting, hinges, door, install bells & horns, insulators, relocations, asbestos: remove/encapsulate.	24 months	730
7	Operational improvements; design changes, transportation requests, annunciators, signage, starting lights, system enhancements, etc.	24 months	730
8	Self-generated	Immediate	0

Table 6-6c: Signals Work Order Priority List

6.2.2 Customer Environment & Facilities - Maintenance Programs/Procedures

The Division of Customer Environment & Facilities is responsible for the Subway Stations/Facilities and is comprised of the following four Divisions Facilities, Electronic Maintenance, Stations Environment & Operations, Elevators & Escalators.

6.2.2A Division of Facilities

The Division of Facilities is responsible planning, maintenance, and improvements for all Department of Subways Facilities. The subdivision of Station Maintenance carries out non-capital improvements to subway stations in an effort to provide safe surroundings for both customers and employees alike. The subdivision of Facility Operations carries out non-capital improvements in non-station facilities, maintains fire suppression systems, HVAC systems, and preforms inspections on elevated station structures and open cut stations.

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The Division of Facilities
Table 6-7 below outlines the subdivision's scheduled maintenance cycle for specific equipment:

STATION MAINTENANCE – SCHEDULED MAINTENANCE ACTIVITIES			
DESCRIPTION	**FREQUENCY**	**PERSONNEL ASSIGNED**	**DOCUMENTATION**
Wash & Re-Lamp Station Lighting	2 Yr. Cycle	Station Maintainer (Lighting)	Recorded in EAM
Vent Bay Inspection & Cleaning	Annual	Station Maintainer (Structures)	Recorded in EAM
Safety Painting (step risers and platform edge rubbing boards)	Annual	Station Maintainer (Structures)	Recorded in EAM
FDNY Standpipe Column Base Painting	Annual	Station Maintainer (Structures)	Recorded in EAM
Inspect Electrical Distribution & Panel Room (EDRs/EPRs)	Quarterly	Station Maintainer (Lighting)	Recorded in EAM
Overhead Inspections	Bi-Annually	Station Maintainer (Structures)	Recorded in EAM
Clean Stations Drains	Annual	Station Maintainer (Structures)	Recorded in EAM
Ejectors	Every 4 Months	Station Maintainer (Structures)	Recorded in EAM
ROW Inspections (Within Station Limits)	Every 6 Months	Station Maintainer (Structures)	Not in EAM currently as a goal, however, will be entered in EAM as a work order until EAM Goal can be updated

Table 6-7: Facility Operations Activities

FACILITIES INSPECTION SCHEDULE	
DESCRIPTION	**FREQUENCY**
Open Cut Structures Inspection	Annually
Standpipes* (Stations/Yards)	Monthly/Quarterly/Annual/5 Year
Sprinklers (Escalators)	Annual
Sprinklers (Yards/Stations)	Monthly/Quarterly/Annual/5 Year
Yard Hydrants	Annual
Fire Pumps	Weekly/Monthly/Semi-Annual/Annual
Backflow Preventers	Annual
Domestic Pumps	As needed
Yard Lighting	Annually
Boiler Rooms	Monthly
Boilers	Daily during heating season
Vents Inspections	Annual

Table 6-8: Facilities Equipment Inspection Schedule

*Note: Standpipe inspections involve various systems

Infrastructure maintenance intervals are outlined below:

FACILITIES – MAINTENANCE INTERVALS		
Asset	**Maintenance Interval**	**Title Maintaining Equipment**
Unit Heaters (Gas Fired Only)	Annual	Structure Maintainer
Yard Lighting	Annual	Light Maintainer

Table 6-9: Facilities Section - Maintenance Intervals

6.2.2B Escalator and Elevator Division

Elevator maintenance for Revenue Elevators is performed on a monthly basis. Revenue Elevator maintenance activities follow a sequence which consist of Monthly, Bi- Monthly, and Quarterly. Whereas the order is Monthly, Bi-Monthly, and Quarterly, the sequence can start anywhere throughout the cycle. The cycle runs for three months and will repeat itself after the third scheduled maintenance is completed. Elevator maintenance for Non-Revenue Elevators is performed on a bi-monthly basis. Escalator maintenance activities follow a sequence which consists of Schedule A through Schedule F. Whereas the order is Schedule A through Schedule F, the sequence can start anywhere throughout the cycle. The cycle runs for six months and will repeat itself after the sixth schedule maintenance is completed. *[ex: PM schedule "B" is the first maintenance scheduled, the scheduled maintenance will continue until Schedule "A" is completed.]* Internal zone audits of Escalators and Elevators are conducted monthly.

The following are the Elevator & Escalator checklists for elevator and escalator maintenance:

- Escalator PM Schedule "A" Cleaning
- Escalator PM Schedule "B" Controller
- Escalator PM Schedule "C" Handrail Drive
- Escalator PM Schedule "D" Safeties
- Escalator PM Schedule "E" Lubrication/Grease/Clean
- Escalator PM Schedule "F" Machinery
- Revenue Hydraulic Elevator Monthly Maintenance
- Revenue Hydraulic Elevator Quarterly Maintenance
- Revenue Traction Elevator Monthly Maintenance
- Revenue Traction Elevator Quarterly Maintenance
- Non-Revenue Hydraulic Elevator Bi-Monthly Maintenance
- Non-Revenue Traction Elevator Bi-Monthly Maintenance

6.2.2C Electronics Maintenance Division

The Electronics Maintenance subdivision is responsible for maintaining the DOS and DOB Telecommunications, Automated Fare Collection, Electronic, and Radio equipment system wide. Management and supervision systematically evaluate the frequency of inspections and preventive maintenance(e.g., cleaning) of equipment, and implements revisions to these schedules when necessary.

Maintenance activities for Electronics Maintenance are performed in conjunction with scheduled inspections as outlined in Table 6-10, as well as from inspection findings, or from service requests (when failures occur). Defects that are found at the time of the inspection will generate a trouble ticket. Equipment repairs are prioritized based on the impact to safety and the operational impact on the transit system. Supervisors ensure that maintenance repairs are done in a timely fashion with the high priority equipment repairs being done first. Essential equipment that can't be repaired will be replaced so that service can continue with minimal disruptions in service.

ELECTRONICS MAINTENANCE – EQUIPMENT INSPECTION INTERVALS			
Equipment	**Inspection Interval**	**Title/Titles Inspecting Equipment**	**Standard Operating Procedures**
Emergency Alarms	Once Annually, 1st Routine Cycle (Jan-May)	Telephone Maintainer	SOP 8.1.1
Emergency Alarms (Under-River Tubes)	Twice Annually, 1st & 3rd Cycle (Jan-May & Sept-Dec)	Telephone Maintainer	SOP 8.1.1
Emergency Telephones (along the Right-of-Way)	Three Times Annually 1st, 2nd & 3rd Cycle (Jan-May, June-Aug & Sept-Dec)	Telephone Maintainer	SOP 8.1.3
Public Address (PA) Systems	Twice Annually	Telephone Maintainer	SOP 5.1.1-5.1.6

ELECTRONICS MAINTENANCE – EQUIPMENT INSPECTION INTERVALS			
Equipment	**Inspection Interval**	**Title/Titles Inspecting Equipment**	**Standard Operating Procedures**
PA/Customer Information Screen Systems (PA/CIS)	Twice Annually	Telephone Maintainer	SOP 5.2
Emergency Booth Communication Systems (EBCS)	Annually	Telephone Maintainer	SOP 6.1.1 -3.1
Customer Assistance Intercoms (CAI)	Annually	Telephone Maintainer	SOP 6.1.1 -3.5
Change Booth Intercoms	Annually	Telephone Maintainer	SOP 6.1.1 - 3.2
Booth Telephones	Annually	Telephone Maintainer	SOP 6.1.1 - 3.4
HALON Systems (Total Flooding Extinguishing Systems)	Twice Annually	Telephone Maintainer	SOP 6.1.1 - 3.3
Fire Alarm Systems	Quarterly, Semi-Annually, and Annually	Telephone Maintainer	P/I 10.34 & TEM Manual, Section 3.1
Subway Radio Systems – Base Stations Alignments	Bi-Annually	Electronic Equipment Maintainer	TEM Manual, Section 3.1
Subway Radio Systems – Tone Remote Control Console (TRCC)	Bi-Annually	Electronic Equipment Maintainer	TEM Manual, Section 3.2
Subway Radio Systems – Communication Rooms	Annually	Electronic Equipment Maintainer	SOP 2
Subway Radio Systems - 'Synchronous Optical Networking' (SONET) Communication Rooms	Annually	Electronic Equipment Maintainer	SOP 2
CCTV – Subway Stations	Monthly	Electronic Equipment Maintainer	Manual 4.1.1
CCTV – Crowd Control	Monthly	Electronic Equipment Maintainer	Manual 4.1.1
CCTV – Station Platform Edges	Monthly	Electronic Equipment Maintainer	Manual 4.1.1
Closed Circuit Television (CCTV) - One Person Train Operation (OPTO)	Monthly	Electronic Equipment Maintainer	Manual 4.1.1
CCTV – Office Buildings and Facilities (Property Protection)	Monthly	Electronic Equipment Maintainer	Manual 4.1.1
CCTV – Police Dept. (OMEGA and Security)	Monthly	Electronic Equipment Maintainer	Manual 4.1.1
CCTV – Cameras in tubes and shafts	Monthly	Electronic Equipment Maintainer	Manual 4.1.1
CCTV – Train Identification	Monthly	Electronic Equipment Maintainer	Manual 4.1.1
IFU - Express Buses	Every 60 Days	Revenue Equipment Maintainer	AFCBM-MI-02

ELECTRONICS MAINTENANCE – EQUIPMENT INSPECTION INTERVALS			
Equipment	**Inspection Interval**	**Title/Titles Inspecting Equipment**	**Standard Operating Procedures**
IFU - Local Buses	Every 60 Days	Revenue Equipment Maintainer	AFCBM-MI-02
IFU - SBS Buses	Every 60 Days	Revenue Equipment Maintainer	AFCBM-MI-02

ELECTRONICS MAINTENANCE – EQUIPMENT INSPECTION INTERVALS			
Equipment	**Inspection Interval**	**Title/Titles Inspecting Equipment**	**Standard Operating Procedures**
Keene Machines	Every 120 Days	Coin Retriever Technician	AFCBM-F-006
CCTV – Bus Depot	Monthly	Electronic Equipment Maintainer	BEM F-05
PA – Bus Depot	Monthly	Electronic Equipment Maintainer	BEM F-06
Bus Radio – Bus Depot	Quarterly	Electronic Equipment Maintainer	BEM F-04
Bus Destination Signs	Biennial	Electronic Equipment Maintainer	SOP 2.5.1
Autonomous Farecard Access System (AFAS)	Every 120 Days	Revenue Equipment Maintainer	AFCSM-WI-026
Booth Terminal (BT)	Every 60 Days (Reduced Fare Transaction booths only)	Revenue Equipment Maintainer	AFCSM-WI-017
High Entry/Exit Turnstile (HEET)	Every 180 Days	Revenue Equipment Maintainer	AFCSM-WI-025
MetroCard Express Machine (MEM)	Every 180 Days	Revenue Equipment Maintainer	AFCSM-WI-016
Turnstile	Every 180 Days	Revenue Equipment Maintainer	AFCSM-WI-024

Table 6-10: Electronics Maintenance – Equipment Inspections

Central Electronics Shop (CES) Test Equipment Inspections

The CES Calibration Lab repairs and calibrates CES in-house test equipment as well as test equipment for other sub-divisions within EMD. All CES equipment used to process, repair, or adjust electronic train components are inspected on a scheduled basis by the Shop's Calibration Lab. CES has established and produced various 'Technical Maintenance Procedures' for the repair and calibration of units, components and equipment. Management ensures that critical CES inspection and maintenance routines are done correctly and in accordance with prescribed procedures.

6.2.3 Staten Island Railway (SIR) Maintenance Programs/Procedures

Staten Island Railway's equipment (including Fire Extinguisher and Cranes) are subject to regular safety-related inspections and testing in accordance with applicable laws/codes, and internal rules and procedures (MW-1 Standards). SIR's equipment inspection (including Fire Extinguisher and Cranes) and testing activities are outlined in the tables below.

Railcar maintenance work orders are generated in Rolling Stock Maintenance Information System (RSMIS) subsequent to inspections conducted via SIR's Scheduled Maintenance Inspection (SMI) Program. Railcar 'Inspection Repair Sheets' identify defects and specify necessary maintenance. Work orders are also generated via defects identified in Train Dispatcher Reports.

All SIR units are subject to a maintenance program that is specifically designed and established for each particular section. Supervisors conduct periodic maintenance audits to evaluate existing programs/procedures. Table 6-11 to Table 6-20 outlines SIR's equipment maintenance program.

SCHEDULE MAINTENANCE SYSTEM (SMS) – Mechanical Dept. (REVENUE TRAINS)	
Equipment	**Maintenance Frequency**
1. Air Brake/Brake Valve SMS	4 Years
2. Master Controller SMS	6 Years
3. TBU Heads Replace SMS	6 Years
4. TBU Body Inspected SMS	6 Years
5. Truck SMS	6 Years
6. Battery SMS	6 Years
7. Coupler SMS	12 Years
8. Shoe Beam	6 Years
9. Trip Cock	6 Years

Table 6-11: SIR Schedule Maintenance Systems (SMS) Mechanical Dept. (Revenue Trains)

SCHEDULE MAINTENANCE SYSTEM (SMS) – Mechanical Dept. (NON-REVENUE TRAINS)		
	Equipment	**Maintenance Frequency**
1.	Air Brake/Brake Valve SMS	4 Years
2.	Master Controller SMS	12 Years
3.	TBU Heads Replace SMS	12 Years
4.	TBU Body inspected SMS	12 Years
5.	Truck SMS	12 Years
6.	Battery SMS	6 Years
7.	Coupler SMS	12 Years
8.	Shoe Beam	12 Years

Table 6-12: SIR Schedule Maintenance Systems (SMS) Non-Revenue Trains

SCHEDULE MAINTENANCE SYSTEM (SMS) – Mechanical Dept. (SMI) Mechanical Division	
Forms	**Frequency**
Inspection Repair Sheet Generated from Schedule Maintenance (SMI)	As Needed in Hexagon

Table 6-13: SIR Schedule Maintenance Inspection (SMI) Mechanical Division

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MOW – ELECTRICAL (POWER) SCHEDULED MAINTENANCE INSPECTION (SMI)	
Forms/Checklists	**Frequency**
1. Transformer Maintenance	Annually
2. DC Switchgear	6 months
3. High Tension Vault	Annually
4. Ground Test Device	Annually
5. SCADA/PLC Maintenance	6 months
6. ATS Switchgear	2 years
7. Rectifier Maintenance	6 months
8. AC and DC Distribution Panel	2 years
9. High Tension Breaker Maintenance	Annually

Table 6-14: SIR MOW Electrical (Power) Schedule Maintenance

SIGNALS MAINTENANCE	
Equipment	**Frequency**
Internal Switch Maintenance (Switch Machine)	Quarterly
CIL/ML Inspection	Quarterly
CIL/ML Maintenance	Monthly
Track Case Inspection	Annual
Switch Heater Inspection	Seasonal 2X per year

Table 6-15: SIR MOW Signals Schedule Maintenance

INFRASTRUCTURE MAINTENANCE	
Equipment	**Frequency**
1. Fire Extinguisher (W96)	Annually
2. Boiler Maintenance	Seasonal
3. Backflow Preventer	Annually
4. Reduce Pressure Zone (RPZ) Rebuilder	5 years
5. Station Inspection/Maintenance	Monthly

Table 6-16: SIR MOW Infrastructure Schedule Maintenance

TRACK MAINTENANCE/MOW/SIR TRACK	
Forms	**Frequency**
1. Condition Survey (Quadrennial Track Inspections)	Every 4 years
2. Supervisors maintenance audits	Periodic

Table 6-17: SIR MOW Track Schedule Maintenance

EEMD ELECTRICAL	
Equipment	**Frequency**
1. Air Conditioning	Seasonally- Monthly
2. HVAC	Seasonal
3. Station Lighting Maintenance	Monthly
4. Joint CIL/ML	Monthly
5. Emergency Electrical Generators (Terminal and Tower A)	Monthly as Needed

Table 6-18: SIR MOW EEMD Electrical Schedule Maintenance

EEMD Electronics	
Equipment	**Frequency**
1. Automated Fare Control (AFC) Equipment (St. George Terminal/Tompkinsville)	Monthly and Quarterly
2. Joint CIL/ML	Monthly
3. CCTV	Bi-monthly

Table 6-19: SIR MOW EEMD Electronics Schedule Maintenance

Third Rail Operations	
Equipment	**Frequency**
1. Negative Cable	Annually
2. Third Rail Heaters	Seasonal x 2

Table 6-20: SIR MOW Third Rail Operations Schedule Maintenance

6.2.4 Equipment Inspection and Testing Program

DOS divisions have standardized inspection/testing programs which have been developed and implemented to help ensure safe work environments and preserve the integrity of the department's equipment.

6.2.4A Service Delivery – Field Operations

Train Operators are governed by School Car instructions or induction training procedures titled *"Preparing Trains for Service"* when preparing trains stored in yards and sidings for customer service. Train crews check trains for defects that could compromise customer and property safety. Train Operators perform visual checks at the terminals following NYC Transit Rules and Regulations rule 9.02(m) which states:

> *They must see that on the front end of the train the safety chain is in position, the storm door is closed and locked and the proper end destination and route signs, marker and running lights are illuminated and displayed. They must also see that the proper side destination signs are illuminated.*

Service Delivery's Hazard Management Process is described below:

Any defect found during a train inspection in the yard must immediately be reported to the Dispatcher who then informs DCE to have the condition rectified. The Dispatcher determines if the train will be put into service depending on the severity of the defect found and whether it can/should be corrected immediately.

The Train Operator (T/O) and Conductor (C/R) may isolate a car (i.e., close it off from passenger access) with the authorization of the Operations Control Center (OCC). The conditions under which this may occur include but are not limited to:

- serious problem reported by customer(s)
- unsanitary condition
- broken/damaged glass
- missing seat(s)

The T/O or C/R may take the train out of passenger service with authorization from the OCC. The conditions under which this may occur include, but are not limited to:

- serious problem reported by customer(s)
- missing window/door glass
- unresolved door problem
- poor braking train
- flat wheel(s)
- loss of indication
- inoperable horn or headlight(s)

Train Service Supervisors (TSS) assigned to areas with Jumper Cables & Storage boxes will make periodic visual inspections of jumper cables (once every six months) and report their conditions to their General Superintendent's Office. When examining Jumper Cables, TSSs will perform cursory inspection to see if cables exhibit any obvious defects such as knots, kinks, cracks, or bare spots in insulation, cracked or broken handles, damaged or loose metal tips, or damaged/defective retractable terminal insulated sleeves. All contact and jumper cables boxes are required to be in compliance with the DOS Operation Directive (Contact Rail Jumper Cables & Storage Boxes, Issued 08/02/12).

6.2.4B MOW Equipment Inspection and Testing Programs

I. Crane

The following is a summary of the MOW Crane Inspection Program:

Equipment Type	Daily Pre-Use Inspection	Frequency of Periodic Inspection	Inspection Title or Contractor
Mobil	Yes	Monthly/Bi-annually	TEM
Overhead Crane - Track	Yes	Monthly/Bi-annually	TEM
Overhead Crane – Power	Yes	3 Year	Certified Individual
Overhead Crane – Power (Pitkin, Atlantic & Jamaica Yard)	Yes	Monthly/Quarterly/ Semi-Annual/Annual	Certified Individual, Contractor*
Pedestal	Yes**	120-day Insp. Cycle***	TEM, CRNOP
Rail Car	Yes**	120-day Insp. Cycle***	TEM, CRNOP

***Table 6-21:** Crane Inspections*

*Moye Handling Systems performs quarterly, semi-annual, and annual OSHA inspections; MOW personnel perform daily inspections

**Periodic inspections of the Rail Car & Pedestal cranes are performed by DCE maintainers and the daily pre-use inspection is performed by a Division of Track maintainer. NYCT personnel are trained to follow OSHA regulations for inspections.

***The 120-day inspection consists of car body component inspection such as wheels, axles, brakes, bearings, couplers, drawbars, suspension, floorboards, lighting and electrical as well as an overall visual inspection of the car. This inspection is performed by DCE Car Inspectors.

In conjunction Track Equipment Maintainers perform the following inspection on a 120 day schedule. This consists of inspecting the Crane components such as but not limited to, the wire rope, hydraulic cylinders, boom sections, sheaves, bearings, wear pads, travel motors / gears and all safety systems, electrical and lighting,

emergency backup systems, engine, belts / hoses and Crane functions. An overall service is done at this time also. It consists of oil and fluid changes, filter changes,

greasing and any repairs that may need attention. This inspection and service is done by Track Equipment Maintainers who work out of Coney Island Overhaul shop

and are part of Car Equipment. When inspection and servicing is complete a load test is done with a weight of 110% of the Cranes lifting capacity. MOW inspection is done by MOW personnel. It could be performed by Track Equipment Maintainers daily which we refer to as yard check or by the Crane Operator before operation as a pre-trip inspection. This inspection focuses mainly on

safety systems, functions and an overall visual inspection ensuring the crane is safe to operate. DCE inspections do not occur daily on every Crane.

II. Track

Track inspections of trackways and associated equipment are conducted in accordance with MOW's current MW-1 'Track Standards Manual'. Track is currently utilizing the INFOR/EAM centralized database system to records all defects and repairs. Track and track-related equipment inspections are described in Table 6-22.

TRACK INSPECTION SCHEDULE WITH GOVERNING PROCEDURES

Description	Track Inspector	Supervisor	Superintendent / Manager	Other	Procedure
Mainline Tracks	Twice Per Week	Every 14 days	Semi Annual	N/A	Section 102.2 of MW-1
Yard Tracks	Monthly	Quarterly	Semi Annual	N/A	Section 102.2 of MW-1
Ultrasonic Rail Flaw Detection (Mainline Tracks)	N/A	N/A	N/A	At Least Three Times Per Year by a rail flaw detector car	Section 102.3 of MW-1
Track Geometry	N/A	N/A	N/A	At Least Twice Per Year by Track Geometry Car	Section 102.4 of MW-1
Mainline Third Rail Height, Gauge, & Clearance	N/A	N/A	N/A	Once Per Year by Track Geometry Car	Section 102.4 of MW-1
Mainline Third Rail Equipment Inspections	N/A	Annually	Random Audit Inspections	Only if needed	FMI # 1028
Yard Third Rail Equipment Inspections	N/A	Every two years	N/A	Only if needed	FMI # 1027
Circuit Breakers (inspected by Power Dist. Maintainer)	CBH Above Ground – 120 days	N/A	N/A	N/A	FMI #-1038
	CBH Under-ground – 60 days				
Mainline Switches and Joints (in conjunction w/ Signals Section)	N/A	Monthly & Whenever Failures Occur	Annually	N/A	Section 102.6 of MW-1

TRACK INSPECTION SCHEDULE WITH GOVERNING PROCEDURES					
Description	**Track Inspector**	**Supervisor**	**Superintendent / Manager**	**Other**	**Procedure**
Yard Switches and Joints	N/A	Quarterly	N/A	N/A	Section 102.6 of MW-1
Under River Tube Inspections (by Third Rail Ops)	N/A	N/A	N/A	Every Two Months	FMI # 1029
Rail Lubricators	N/A	N/A	N/A	Twice a Year	MW1

Table 6-22: Track and Related-Equipment Inspections

Emergency Inspections:

In the event of fire, flood, severe storm, or other occurrence (which might have resulted in damaged track and/or structures) an emergency inspection of the affected track and/or structure(s) is made as soon as possible following the occurrence in accordance with Section 102.5 of MW-1 'Track Standards Manual'.

Track's Hazard Management Process is described below:

Track inspections must conform to MW-1 Track Standards, and all track defects are corrected in appropriate order; based on the severity (as defined by MW-1 Track Standards). All defective rails identified during ultrasonic testing are clearly marked on each side of the rail web and base. Inspection records (maintained for two years) indicate the nature of defects, action taken and location of the flaw. Serious defects found during third rail height and gauge inspections are referred to the Chief Officer of Power and the Assistant Chief Third Rail Officer, Third Rail Operations for immediate safety risk mitigation.

III. Infrastructure

The Infrastructure section's equipment inspections can be found in Table 6-23.

V. Power (Electrical & Third Rail)

Equipment inspections within the Subdivision of Electrical are conducted by Power Maintainers, as well as Supervisors and Managers (Superintendents and General Superintendents). The inspection and subsequent repairs (when necessary) are conducted in accordance with the procedures and schedules outlined in Tables 6-23 through 6-24.

Power section employees inspect and maintain DOS's electrical infrastructure and power systems.

- All remote-controlled power equipment is operated through a Supervisory Control and Data Acquisition (SCADA) system. The SCADA system allows the operators to monitor the status of all power equipment.

- Power District Operators in conjunction with the Power Control Center System Operator receive indication that third rails are alive or de-energized, as well as monitor substation traction and signal loads. SCADA is operationally checked on an hourly basis.
- Remote SCADA unit inspections are performed on a semi-weekly basis, while remote SCADA operation testing is performed on a monthly basis.

TRACK INSPECTION SCHEDULE WITH GOVERNING PROCEDURES					
Description	**Track Inspector**	**Supervisor**	**Superintendent / Manager**	**Other**	**Procedure**
Mainline Third Rail Height, Gauge, & Clearance	N/A	N/A	N/A	Once Per Year by Track Geometry Car	Section 102.4 of MW-1
Mainline Third Rail Equipment Inspections	N/A	Annually	Random Audit Inspections	Only if needed	FMI # 1028
Yard Third Rail Equipment Inspections	N/A	Every two years	N/A	Only if needed	FMI # 1027
Circuit Breakers (inspected by Power Dist. Maintainer)	CBH Above Ground – 120 days	N/A	N/A	N/A	FMI #-1038
	CBH Under-ground – 60 days				
Under River Tube Inspections (by Third Rail Ops)	N/A	N/A	N/A	Every Two Months	FMI # 1029

Table 6-23

POWER SUBSTATION – INSPECTION INTERVALS			
EQUIPMENT		**Electrical Equipment Maintenance (NEC, 2002)**	**NYCT Inspection Interval**
Switchgear Device (52)	Oil	8.8.7	Weekly
	Dry		1 months
	≥25 Years		Weekly

Rectifier	<25 Years	12.4.1	1 month
	≥25 Years		weekly
Transformer	Oil Water cooled	9.2.4	Weekly
	Oil Air cooled		Bi-weekly
	Dry	9.3.4	1 month
	≥25 Years		Weekly
DC Line Up	<25 Years	8.8.7	1 month
	≥25 Years		Weekly

Table 6-24: Power Substation – Inspection Intervals Subdivision of Electricals' Hazard

POWER SECTION INSPECTIONS							
TEST No:	EQUIPMENT INSPECTION / TEST	TITLE OF INSPECTOR & FREQUENCY					
		Maintainer	Unit	Supervisor	Manager	Max. Time Allowed Between Inspections	PROCEDURE NO. / CHECKLIST
2	Oil Filled Transformers (Substation)	Weekly	Substation	Bi-monthly	Annually	90 Days	FO-801-T1
3	Dry Transformers (Substation)	Monthly	Substation	Bi-monthly	Annually	2 Years	FO-801-T1
4	Diode Protection (Substation)	Monthly	Substation	Bi-monthly	Annually	90 Days	FO-801-T1
5	Fire Extinguishers	Bi-Annually	Substation	Bi-monthly	Annually	2 Months	FMI - 29
6	Rubber Gloves (Electrician's)	Monthly	Substation	Bi-monthly	Annually	2 Months	FMI - 15
7	Battery Ground Readings	Monthly	Substation	Bi-monthly	Annually	2 Months	Testing Schedule Report
8	First Aid Kits	Monthly	Substation	Bi-monthly	Annually	2 Months	FMI - 20
9	Control Room	Monthly	Substation	Bi-monthly	Annually	2 Months	FO-801-T1
11	DC Feeder Breaker Test	Monthly	Substation	N/A	N/A	2 Months	Testing Schedule Report
12	Emergency Alarm (EA) Panel Test	Monthly	Substation	N/A	N/A	2 Months	Testing Schedule Report
13	Tube Shell Test	Monthly	Substation	N/A	N/A	2 Months	Testing Schedule Report
14	Local Emergency Control (LEC) Test	Monthly	Substation	N/A	N/A	2 Months	Testing Schedule Report

Table 6-25: Power Section Equipment Inspections

Power Hazard Management Process:

Defects identified during equipment inspections/testing are prioritized in accordance with Table 6-26.

POWER SECTION– WORK ORDER PRIORITY LIST			
PRIORITY NO.	**PRIORITY DESCRIPTION**	**REPAIR INTERVAL**	**DAYS DUE**
1	Loss of Supervisory Control; Fiber network, blown fuses, defective Supervisory components	Immediate	0
2	Emergency Alarms; Wiring, Communication Cables, Relays, Timer, Switches, Fuses, Resistors.	Immediate	0
3	Emergencies (Fires, explosions, Floods)	Immediate	0
4	Frequency Converters; Trouble Shooting, Inspection, Delta Modules, Power Supplies, Capacitors, Relays, Fans, Filters, and associated equipment.	Immediate	0
5	DC Breaker; Change main contacts, Close Coil, Trip Coil, Arc Chutes, Relays, Switches, Resistors, Fuses, Meters.	1 Week	7
6	Maintenance; Critical, General, Routine, Inspections, Monthly Testing	1 Month	30
7	DC Equipment Failure (Rectifier, High Tension Breaker, Main Transformer), Ground Fault, Relays, Diodes, Diode Fuses, Diode Fail Indictors, Temperature Sensors, Contactors, Fans, AC & DC Bus, Circuit Breakers, Batteries.	6 Months	180
8	Control Cable Faults, Positive & Negative Cables, High Tension Cables; Isolating and replacing cable sections.	6 Months	180
9	Substation Structures; Roof, Pointing Brick, Doors, Vent Fans, Vents, Conduits, Plumbing, Lighting, Pumps	6 Months	180
10	Operational Improvements; Signage, Telephones, Design Changes, Mimic Graphics, PLC, Equipment Layout.	24 Months	730
11	SELF GENERATED	Immediate	0

Table 6-26: Power Section's Hazard Management Process

VI. Signals

Equipment inspections within the Subdivision of Signals are conducted by Signal Maintainers, as well as Supervisors and Managers (Superintendents and General Superintendents). The inspection and subsequent repairs (when necessary) are conducted in accordance with the procedures and schedules outlined in the table below.

Equipment inspections conducted by the Signals section include visual inspections and tests of signals and switches. Switch inspections are also conducted jointly with the Track section in accordance with the schedule outlined in Table 6-27.

Signals Hazard Management Process:

Defects identified during equipment inspections/testing are prioritized in accordance with Table 6-27.

SIGNALS SECTION – WORK ORDER PRIORITY LIST			
PRIORITY No.	**PRIORITY DESCRIPTION**	**REPAIR INTERVAL**	**DAYS DUE**
1	Potential false proceeds, emergencies, fires, floods, derailments, associated damages.	Immediate	0
2	Temporary track wires.	1 month	30
3	Cables & wires (vital circuits); install ties, replace damaged cable supports, renew switch movements, frame/install switch ties, replace stop ties, broken or hanging messenger.	12 months	365
4	Cables & wires (non-vital circuits); cable jacket deterioration, switch cradles, hand throw switch lights, replace flashboards, smoke detectors, broken signal cases, ladders, signal component relocations.	12 months	365
5	Signal upgrades; equipment case renewals, power cable replacement, snow melters, airline, joints, brackets, power supplies.	24 months	730
6	Signal structural; re-piping, cables without spare wires, blocks, brackets, shock mounting, hinges, door, install bells & horns, insulators, relocations, asbestos: remove/encapsulate.	24 months	730
7	Operational improvements; design changes, transportation requests, annunciators, signage, starting lights, system enhancements, etc.	24 months	730
8	Self-generated	Immediate	0

Table 6-27: Signal Section's Hazard Management Process

6.2.4C DCE Inspection and Testing Programs

The following is a summary of the DCE Crane Inspection Program. Monthly inspections are conducted by NYCT with certified personnel and yearly inspections are performed by a certified Crane Manufacturers Association of America (CMAA) contractor. All inspections are based on OSHA section 1910.179 and 1910.184. All NYCT inspections are performed by certified hourly personnel and approved by certified Supervisors (MS1). Yearly CMAA inspections are currently performed under contract by Sissco/Permadur Industries.

Equipment Type	Daily Pre-Use Inspection	Frequency of Periodic Inspection*	Inspection Title or Contractor**
Crane, Jib	Yes	Monthly/Yearly (CMAA)	MS1/Sissco Permadur
Crane, Hoist	Yes	Monthly/Yearly (CMAA)	MS1/Sissco Permadur
Crane, Bridge	Yes	Monthly/Yearly (CMAA)	MS1/Sissco Permadur
Pedestal	Yes*	Monthly/Yearly Cycle	TEM, CRNOP
Rail Car	Yes*	Monthly/Yearly Cycle	TEM, CRNOP

Table 6-29: Crane Inspections

* Periodic inspections of the Rail Car & Pedestal cranes are performed by DCE maintainers and the daily pre-use inspection is performed by a Division of Track maintainer.

Note: A 120-day inspection consists of car body component inspection such as wheels, axles, brakes, bearings, couplers, drawbars, suspension, floorboards, lighting and electrical as well as an overall visual inspection of the car. This inspection is performed by DCE Car Inspectors.

In conjunction Track Equipment Maintainers perform the following inspection on a 120 day schedule. This consists of inspecting the Crane components such as but not limited to, the wire rope, hydraulic cylinders, boom sections, sheaves, bearings, wear pads, travel motors / gears and all safety systems, electrical and lighting, emergency backup systems, engine, belts / hoses and Crane functions. An overall service is done at this time also. It consists of oil and fluid changes, filter changes, greasing and any repairs that may need attention. This inspection and service is done by Track Equipment Maintainers who work out of Coney Island Overhaul shop and are part of Car Equipment. When inspection and servicing is complete a load test is done with a weight of 110% of the Cranes lifting capacity. MOW inspection is done by MOW personnel. It could be performed by Track Equipment Maintainers daily which we refer to as yard check or by the Crane Operator before operation as a pre-trip inspection. This inspection focuses mainly on safety systems, functions and an overall visual inspection ensuring the crane is safe to operate. DCE inspections do not occur daily on every Crane.

SPECIAL EQUIPMENT	
Pedestal Crane and Crane Car	120 days
	Daily/monthly/annual
Signal Dolly	120days +/- 15
Tamper	120 days +/- 15
Ballast Regulator	120 days +/- 15
Jet Blower	120 days +/- 15
Snow Thrower	365 days +/- 30
Rail Grinder	365 days +/- 30

Table 6-28: Crane & Equipment Inspections

DCE is responsible for inspection programs (including pre-service inspection) for both revenue and non-revenue rail vehicles. Inspection programs for revenue vehicles are covered in work manuals for specific car classes (make and model) which have been developed according to official NYCT specifications. Each work manual explains all maintenance activities required during a car's scheduled maintenance inspection (SMI) cycle. The manuals include vehicle drawings, step-by-step maintenance instructions and troubleshooting guidelines. All work manuals follow identical NYCT inspection criteria and are formatted in a similar fashion as to facilitate ease of use among users. Tables 6-29 thru 6-33 outline the items inspected as part of the SMI cycle for specific car classes. In additions, DCE performs scheduled maintenance inspections of non-revenue cars at the 207th Street, Corona and Pelham Diesel Shops as shown in Table 6-34.

The division has also developed inspection programs for a variety of other equipment located in maintenance and overhaul shops (including such items as cranes, jacks, and forklifts). DCE equipment inspection programs are conducted in accordance with OSHA and ANSI standards, as well as internal DCE procedures and checklists. The following tables outlines DCE's equipment inspection activities and Location specific checklists. Some inspections at certain facilities are included in the divisions Facility Maintenance Program. Refer to document MCD 12-01, Revision A (Page 6-58).

DIVISION OF CAR EQUIPMENT (DCE) – SCHEDULED MAINTENANCE INSPECTIONS CAR CLASSES R46 TO R68			
Equipment (Propulsion)	**Inspection Interval**	**Title Inspecting Equipment**	**Procedure**
Traction Motor	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Battery and Battery Box	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Control Group	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Converter	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Equipment (Under Car)	**Inspection Interval**	**Title Inspecting Equipment**	**Procedure**
Trip Cock	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Drain Cocks - Tanks and Reservoirs	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Cut-Out Cock, Hoses and Pipes	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Coupler Head, Electric Portion & Draw Bar Assembly	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Air Brake System	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Air Supply Unit	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Truck Brake Equipment	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Equipment (Car Body)	**Inspection Interval**	**Title Inspecting Equipment**	**Procedure**
HVAC System	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Door Control	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual

DIVISION OF CAR EQUIPMENT (DCE) – SCHEDULED MAINTENANCE INSPECTIONS CAR CLASSES R46 TO R68			
Car body	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Panels	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Lights and Lighting Inverter	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Communication System (PA)	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Undercar Cleaning	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual

Table 6-29: DCE Scheduled Maintenance Inspections – R46 to R68

DIVISION OF CAR EQUIPMENT (DCE) – SCHEDULED MAINTENANCE INSPECTIONS - CAR CLASSES R142 TO R188			
Equipment (Propulsion)	**Inspection Interval**	**Title Inspecting Equipment**	**Procedure**
Current Collectors	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Traction Motor	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Battery and Battery Box	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Control Group	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Traction Inverter (BTCP)	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Master Controller	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Trip Valves	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Drain Valves, Tanks and Reservoirs	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual

DIVISION OF CAR EQUIPMENT (DCE) – SCHEDULED MAINTENANCE INSPECTIONS - CAR CLASSES R142 TO R188			
Equipment (Propulsion)	**Inspection Interval**	**Title Inspecting Equipment**	**Procedure**
Cut-Out Valves, Hoses and Pipes	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Coupler System	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Air Brake System	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Air Supply Unit	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Truck Brake Equipment	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Truck and Wheels	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual

Table 6-30: DCE Scheduled Maintenance Inspections – R142 to R188

DIVISION OF CAR EQUIPMENT (DCE) – SCHEDULED MAINTENANCE INSPECTIONS - CAR CLASSES R142 TO R188			
Equipment (Car Body)	**Inspection Interval**	**Title Inspecting Equipment**	**Procedure**
HVAC System	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Door Control	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Car body	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Panels	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Lighting System	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Communication System	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Undercar Cleaning	68 to 78 days or 10,000 to 12,000 miles	Car Maintainer	Car Specific Work Manual
Car Case History - RSMIS Report	As Required	Car Maintainer	Car Specific Work Manual

Table 6-31: DCE Scheduled Maintenance Inspections – R142 to R1886

Scheduled Maintenance Inspections (Non-Revenue Cars) 207th Street MS, Corona and Pelham Diesel Shops		
Non-Revenue Cars	**Interval**	**Title Inspecting Equipment**
Locomotive (Diesel & Electric)	92 days +/- 10	Car Maintainer
Reach (R21), Weld (R56), Hopper (R80, 116), CWR Handlers (R17, 21, 22), Tank (R66), Pump (R65), Deicer (R17, 21, 22)	180 days +/- 20	Car Maintainer
Flat Cars (R20, R48, R49, R51A/A, R58, R72, R101, R141) – Pelham Diesel	180 days +/- 20	Car Maintainer
Flat Cars Refuse (R58) – Corona & 207th St. MS	180 days +/- 20	Car Maintainer
Signal Supply Car (R74)	60 days +/- 00	Car Maintainer
Rider Car (R33m) – Pelham Diesel	180 days +/- 20	Car Maintainer
Work Motor (R33s) – corona and 207th St. MS	68-78 days	Car Maintainer
Refuse Collection (R134)	68-78 days	Car Maintainer

Table 6-32: DCE Scheduled Maintenance Inspections – Non-Revenue Cars

ASSET	RESPONSIBLE PARTY	DAILY	WEEKLY	MONTHLY	QUARTERLY	SEMI - ANNUALLY	ANNUALLY	TITLE OF INSPECTOR	COMMENTS	DOCUMENTATION
AERIAL WORK PLATFORMs,	DCE	√						HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System Work Order (W/O) for Facility Maintenance Program (FMP)
AIR COMPRESSOR	DCE				√	√	√	HOURLY AND APPROVED BY SUPERVISOR	Also Performed By Contractor	System W/O for FMP / Contractor Invoice for Non-FMP
BELT SANDING MACHINE & DUST COLLECTOR	DCE			√				HOURLY AND APPROVED BY SUPERVISOR		Scheduled System W/O for FMP / Visual Check Before Use
CLEANING MACHINE, STEAM	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		Scheduled System W/O for FMP / Visual Check Before Use
CAR WASH	DCE	√		√		√	√	HOURLY AND APPROVED BY SUPERVISOR		System W/O for FMP / Manual Check List foe Non-FMP
CRANE & HOIST	DCE	√		√			√	HOURLY AND APPROVED BY SUPERVISOR	Also Performed By Contractor	System W/O for FMP / Manual Check List & Contractor Invoice for Non-FMP
DRILL PRESS	DCE			√		√		HOURLY AND APPROVED BY SUPERVISOR		Visual Check/ System W/O for FMP
EYE WASH & EMERGENCY SHOWER	DCE		√				√	HOURLY AND APPROVED BY SUPERVISOR		System W/O for FMP / Check List for Non-FMP
FIRE EXTINGUISHER	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		System W/O for FMP/ Check List for Non-FMP
FORKLIFT	DCE	√						HOURLY AND APPROVED BY SUPERVISOR	Also Performed By Contractor	System Work Order (W/O) for Facility Maintenance Program (FMP) / Contractor Invoice for Non-FMP
FUME EXTRACTOR	DCE		√	√		√		HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP

Table 6-33 ： ***DCE Equipment Inspections***

ASSET	RESPONSIBLE PARTY	DAILY	WEEKLY	MONTHLY	QUARTERLY	SEMI - ANNUALLY	ANNUALLY	TITLE OF INSPECTOR	COMMENTS	DOCUMENTATION
GENERATORS	DCE/MOW							HOURLY AND APPROVED BY SUPERVISOR	Maintained by Infrastructure	Visual Check
GRINDERS	DCE			√				HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
HIGH PRESSURE WASHER	DCE						√	HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
HORIZONTAL BANDSAW	DCE			√		√		HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
HYDRAULICS ,LIFTS, & JACKS	DCE	√				√		HOURLY AND APPROVED BY SUPERVISOR	Also Performed By Contractor	System W/O for FMP / Manual Check List & Contractor Invoice for Non-FMP
INDUSTRIAL VEHICLE	DCE			√	√	√	√	HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
LATHE	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
MULTI-PROCESSOR WELDER	DCE				√	√		HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
MULTIPUROSE SPREADER	DCE						√	HOURLY AND APPROVED BY SUPERVISOR	Also Performed By Contractor	Visual Check / System Work Order (W/O) for Facility Maintenance Program (FMP)
MILLING MACHINE	DCE			√				HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
SCRUBBER, FLOOR	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP

Table 6-33 (Continued): DCE Equipment Inspections

ASSET	RESPONSIBLE PARTY	DAILY	WEEKLY	MONTHLY	QUARTERLY	SEMI - ANNUALLY	ANNUALLY	TITLE OF INSPECTOR	COMMENTS	DOCUMENTATION
SCRUBBER, RIDE-ON	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
SCRUBBER, WALK-BEHIND	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
SWEEPER, RIDE-ON FLOOR	DCE			√		√	√	HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
SWEEPER, WALK-BEHIND FLOOR	DCE			√		√	√	HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
TABLE SAW	DCE			√			√	HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
TANK (AST 385 GALLON WASTE OIL)	DCE			√				HOURLY AND APPROVED BY SUPERVISOR		Visual Check / System W/O for FMP
3rd RAIL TROLLEY AND AUXILIARY BUGS CONTROLLER	DCE	√						HOURLY AND APPROVED BY SUPERVISOR		System W/O for FMP / Manual Check List or Supervisor Log for Non-FMP
VERTICAL BANDSAW	DCE			√		√		HOURLY AND APPROVED BY SUPERVISOR		Visual Check
WHEEL TRUING MACHINE	DCE		√	√		√		HOURLY AND APPROVED BY SUPERVISOR	Also Performed By Contractor	System W/O for FMP / Manual Check List & Contractor Invoice for Non-FMP

Table 6-33 ***(Continued): DCE Equipment Inspections***

Corona Maintenance Facility and Car Wash
PM Frequency Table

DCE - SHOP EQUIPMENT AND ASSETS

	ASSET TYPE	MANUFACTURER	PRIORITY	FREQUENCY							
				DAILY	WEEKLY	MONTHLY	QUARTERLY	SEMI-ANNUALLY	ANNUALLY	OTHER	COMMENTS
1	AERIAL WORKPLATFORM LIFT (6)*	GENIE INDUSTRIES	2				√/C				
2	BANDSAW(2)	WILTON TOOL DIV	3					√			
3	BELT & DISK SANDER	WILTON TOOL DIV	2				√				
4	CAR WASH		1		√	√	√		√		
5	CRANE & HOIST*		1			√			SS		
6	CYLINDRICAL FLOOR SCRUBBER (2)	NILFISK ADVANCE	2			√					
7	DRILL PRESS (5)	WILTON TOOL DIV	3					√			
8	EMERGENCY LIGHTING & EXIT SIGNAGE INSPECTION		1			√					
9	EYE WASH AND EMERGENCY SHOWER		1			√					
10	FIRE EXTINGUISHER		1			√					
11	FLOOR SCRUBBER (5)	NILFISK ADVANCE	2			√			√		
12	FLOOR SWEEPER (3)	TERRA	2			√		√	√		
13	FORKLIFT (4)*	TOYOTA	1			√	C				
14	GENERATOR (3)	BALDOR	3					√	√		
15	GRINDER (4)	CINCINNATI	3					√			
16	HI-PRESSURE WASHERS	GOODWAY	2						√		
17	HYDRUALIC LIFT JACKS (6)*	SIMPLEX	1			√		SS			
18	HYDRAULIC LIFT TABLE (14)	PRESTO	1			√			√		
19	LATHE	SOUTH BEND	2					√	√		
20	INDUSTRIAL VEHICLES (4)	MALVESE NISSAN	2				√	√/C	√		
21	MILLING MACHINE	JET	2					√			
22	MULTI-PURPOSE SPREADER	TRYNEX INDUSTRIES	2						√		
23	PRESSURE CLEANER (3)	KRANZLE	2			√			√		
24	ROLL UP DOOR (14)		1				√				
25	ROOF		1			√					
26	SKID STEER LOADER	TRYNEX INDUSTRIES	2					√	√		
27	SNOW THROWER (2)	TORO POWER-MAX	2						√		
28	THIRD RAIL TROLLEY AND AUXILIARY BUGS CONTROLLER		1	√							
29	TOOL GRINDER	BALDOR	3						√		
30	TABLE SAW	DELTA	3					√	√		
31	WELDER		2				√	√			
32	WHEEL TRUING MACHINE	SIMMONS	1			√		S	S	√	Bi-Weekly
33	WINTER OPERATION								√		
	Total			1	1	14	7	12	17	1	Revised as of August 2014

Asset PM Frequency maybe subject to changes based on location usage and monitoring

* - In-house maintenance personnel perform inspections, in conjunction with service contractor performing all required maintenance and repair.

C - Crown, SS - Sissco, S - Simmons (Service Contractor/Vendor performing all required maintenance and repair.)

() - The number in between stands for the total number of equipment.

Table 6-34: Example of Location Specific DCE Equipment Preventive Maintenance Frequency Table

DCE Facility Maintenance Plan Standard Operating Procedure

I PURPOSE

- To develop and implement Facilities Maintenance Plans to extend asset lifecycles and improve the safety of shop equipment located in the DCE Maintenance and Overhaul Shops.
- To ensure that personnel responsible for performing the inspections, testing, repair and maintenance are properly trained.
- To comply with OSHA, Federal, State and applicable regulatory requirements.

II DEFINITIONS

- Shop Equipment – cranes, hoists, industrial vehicles, car washer, et al.
- Facility Maintenance Plan (FMP) - Equipment Inventory, Preventive Maintenance Procedures, Location Layouts and associated policies.
- Emergency Response facilities and equipment.
- CMMS - Computerized Maintenance Management System (MP2)

III RESPONSIBILITIES

Shop Management:

- Ensuring that all shop and facility equipment is inspected at required intervals.
- Generating Scheduled & Unscheduled Maintenance Work Orders.
- Documenting all facility and shop equipment inspections, maintenance activities and resources in the CMMS.
- Assigning appropriate personnel to conduct the maintenance inspections.
- Maintaining critical shop equipment operation and maintenance reference manuals.
- Ensuring that Facility personnel receive copies of service invoices for contractor payment.

Facilities & Shop Equipment:

- Expediting critical shop equipment, Emergency Response and revenue and non-revenue facility issues.
- Generating management reports including performance and cost data reports.
- Ensuring Preventive Maintenance Plans are revised and updated as required.
- Providing oversight and technical support to the shop management.
- Supporting all facility and shop equipment related capital programs.
- Preparing the work scopes and informal requisitions for facility and critical shop equipment purchases.
- Ensuring proper utilization of CMMS for tracking work orders, labor, spare parts and maintenance history of equipment.

Quality Assurance & Warranty Control:

- Ensuring shop compliance with FMP by conducting internal shop audits.

Maintenance of Way (MOW) maintenance subdivisions:

- Preventative maintenance and service on all utilities and critical structural components for Car Maintenance, Car Cleaning, Car Washer and RCI and Emergency Response Facilities.

IV JOINT RESPONSIBILITIES

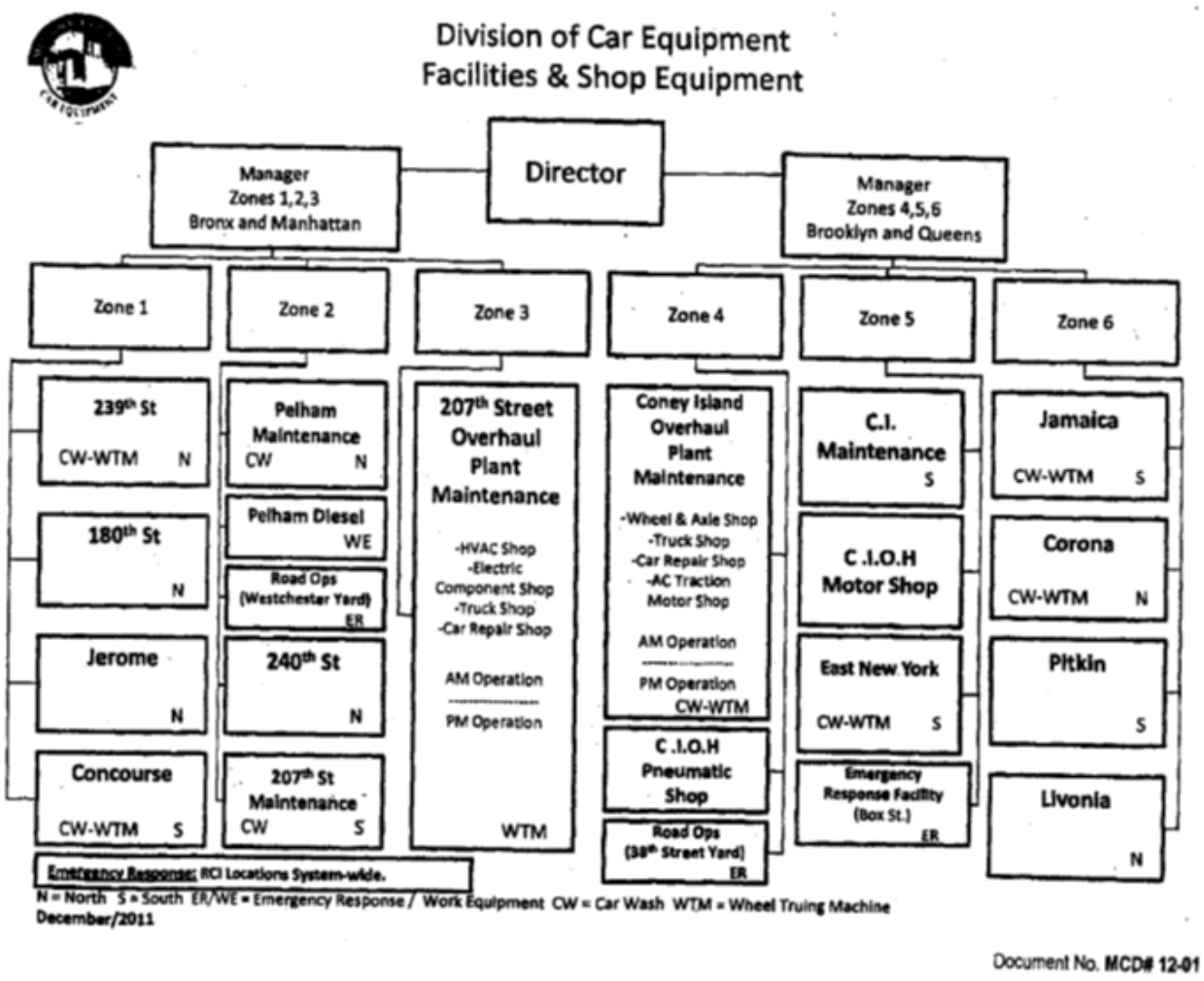
- Maintain critical equipment inventories for equipment valued at more than $5,000.00 and **all** safety critical equipment.
- Coordinate maintenance activities with Maintenance of Way and/or external contractor/vendor.
- Develop and implement preventative maintenance procedures.

V REFERENCES

- FMP Maintenance Plan.
- Facilities and Shop Equipment Organization Chart (December 2011).

MCD #12-01 Rev.A

Document MCD 12-01, Revision A



ment MCD 12-01, Revision A

6.2.4D Customer Environment and Facilities Inspection and Testing Programs

I. Elevator & Escalator

Elevators & Escalators' Hazard Management Process is described below:

Qualified Maintainers and Inspectors conduct maintenance and inspection activities. Defects found during any activity are corrected in appropriate manner based on severity. Defects affecting public safety (Type "A" Work Order) is being corrected immediately or create an outage till it is corrected. Other defects (Type "B" Work Order) are to be corrected in 90 days or when parts are available, in case of old machines. The EAM system tracks the Work Orders and the repairs performed.

The Elevator & Escalator equipment inspections are outlined in the table below:

ELEVATOR & ESCALATOR INSPECTION SCHEDULE WITH GOVERNING PROCEDURES			
DESCRIPTION	**FREQUENCY**	**TITLE OF INSPECTOR**	**PROCEDURE**
Elevators and Escalators - Cat I Inspection	6 Months	Maintenance Supervisor Level I	ASME Guidelines - A17.2
Elevators - Cat 5 Inspection	5 Years	Maintenance Supervisor Level I	ASME Guidelines - A17.2

Table 6-35: Elevator & Escalator Equipment Inspection Schedule

II. Electronics Maintenance Division

Electronics Maintenance is responsible for maintaining the DOS and DOB Telecommunications, Automated Fare Control, Electronic and Radio equipment and to ensure the repair of sensitive electronic equipment throughout the system and within the agency's many facilities. The section is also responsible for repairing/refurbishing electronic components for railcars and buses; work which takes place at the Central Electronics Shop.

Electronics Maintenance is accountable for conducting system-wide inspections of NYCT'S Telecommunications, Automated Fare Control, Electronic and Radio equipment as outlined in Table 6-10.

Central Electronics Shop (CES) Test Equipment Inspections:

Calibration Lab repairs and calibrates CES in-house test equipment as well as test equipment for other sub-divisions within EMD. All CES equipment used to process, repair, or adjust electronic train components are inspected on a scheduled basis by the Shop's Calibration Lab. CES has established and produced various 'Technical Maintenance Procedures' for the repair of units, components and equipment. Management ensures that critical CES inspection and maintenance routines are done correctly and in accordance with prescribed procedures.

6.2.4E SIR Equipment Inspection and Testing Programs

Processes are in place for Staten Island Railway Operating Departments to identify hazards, defects and failures. When hazardous conditions are identified, SIR units address them immediately. If the condition cannot be resolved immediately, work order requests are submitted to the appropriate department to have the condition rectified or equipment repaired/replaced. Equipment deemed unsafe is removed from service, and any unsafe conditions are mitigated. Any resolved conditions and equipment repairs/replacements are documented in accordance with departmental/divisional procedures.

Facility and work site inspections, along with internal control tests (of equipment) are conducted by all SIR units. Individual units are required to address any deficiencies immediately upon discovery. Where conditions cannot be resolved immediately, work order requests are submitted to the appropriate section to have the condition(s) rectified.

SIR's equipment is subject to regular safety-related inspections and testing in accordance with applicable laws/codes, and internal rules and procedures. SIR's equipment inspection and testing activities are outlined in tables 6-36 to 6-45.

SIR work environments are regularly evaluated to identify and resolve hazards. Union-management safety committee meetings are held, and findings are documented. Hazards not corrected remain "open" (with a running day count) until resolved. Location management is responsible to resolve hazards at their work location or facility.

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SIGNALS DIVISION	
Equipment	**Frequency**
1. **Test #2** - Relays, Electric Locks & Other Electro-Mechanical Devices	**6 month/10 years**
2. **Test #3** - Resistance of Made Grounds	**10 Years** or whenever placed in service, modified, or disarranged.
3. **Test #4** - Signal Indication Locking	**2 Years** or whenever placed in service, modified, or disarranged.
4. **Test #5** - Approach Locking	**2 Years** or whenever placed in service, modified, or disarranged.
5. **Test #6** - Time Locking	**2 years** or whenever placed in service, modified, or disarranged.
6. **Test #7** - Timing Devices	**Annual** or whenever placed in service, modified, or disarranged.
7. **Test #8** - Switch Indication	**2 Years** or whenever placed in service, modified, or disarranged.
8. **Test #9** - Switch Correspondence	**None required**; however, inspection must be performed whenever placed in service, modified, or disarranged.
9. **Test #10** Hand Operated Switch Locking (Landing and Princess Bay)	**2 years** or whenever placed in service, modified, or disarranged.
10. **Test #11A** - Switch Circuit Controller	**Quarterly** or whenever placed in service, modified, or disarranged.
11. **Test #11B** - Switch Obstruction	**Monthly** or whenever placed in service, modified, or disarranged.
12. **Test #12** - Route & Detector Locking	**2 years** or whenever placed in service, modified, or disarranged.
13. **Test #13** - Traffic Locking	**2 years** or whenever placed in service, modified, or disarranged.
14. **Test #14** - Ground Test	Monthly or whenever placed in service, modified, or disarranged.
15. **Test #15** - Fouling & Bonding Wire Inspection	Monthly or whenever placed in service, modified, or disarranged.
16. Test #15A - Shunt Fouling Circuit	Quarterly or whenever placed in service, modified, or disarranged.
17. Test #17 - Track Circuit Shunting Sensitivity	Annually or whenever placed in service, modified, or disarranged.
18. Test #17A - Track Circuit Current Voltage & Polarity	2 Years or whenever placed in service, modified, or disarranged.
19. Test #17B - Track Circuit Broken Rail Protection	None required; however, inspection must be performed whenever placed in service, modified, or disarranged.
20. Test #18 - Time Delayed Code Change	2 Years or whenever placed in service, modified, or disarranged.
21. Test #19 - Track & Switch Blocking	2 Years or whenever placed in service, modified, or disarranged.
22. Test #20 - Insulation Resistance	10 Years or whenever placed in service, modified, or disarranged.
23. Battery Inspection Test	Quarterly
24. Ground Connection & Lightning, Ground Arresters	Monthly

Table 6-36: SIR Signals Division Equipment Inspections & Testing Programs

POWER DIVISION	
Equipment	**Frequency**
1. D.C. Switch Gear Maintenance and Testing	Bi-annual
2. Load Measuring Relays	Annually
3. Battery Chargers	Every two years
4. Transformer Maintenance	Annually
5. High Potential Testing	Every three Years
6. AC protection devices	Annually
7. Procedure for Performing a Dead Short Clearance	As needed
8. Procedures for Restoring Power After a Dead Short Clearance	As needed
9. Procedure for Manual Operation of Rectifier as Needed Equipment	As needed
10. Procedure for Manual Operation of DC Feeder Breakers	As needed
11. Procedures for Racking in PACS 52 Breaker	As needed
12. Procedures for Racking out PACS 52 Breaker	As needed
13. Transformer Oil Dielectric Test	Every three years

Table 6-37: ***SIR Power Division Inspection & Testing Program***

MUE Mechanical (Revenue Vehicles)	
Equipment	**Frequency**
1. Brake Shoe and Air Compressors	Inspections and tests are conducted at a minimum of 66-day intervals plus or minus 5 days
2. Air valves and Tread Brake Heads	Inspections and tests are conducted at a minimum of 66-day intervals plus or minus 5 days
3. Master Controller	Inspections and tests are conducted at a minimum of 66-day intervals plus or minus 5 days
4. Air Compressor	Inspections and tests are conducted at a minimum of 66-day intervals plus or minus 5 days ***Oil and Filter Change (1-year intervals)**
5. Door Systems	Inspections and tests are conducted at a minimum of 66-day intervals plus or minus 5 days
6. Converter and Control Group	Inspections and tests are conducted at a minimum of 66-day intervals plus or minus 5 days

7.	Batteries	Inspections and tests are conducted at a minimum of 66-day intervals plus or minus 5 days
8.	HVAC Systems	Inspections and tests are conducted at a minimum of 66-day intervals plus or minus 5 days
9.	Truck Systems	Inspections and tests are conducted at a minimum of 66-day intervals plus or minus 5 days
10.	Communication Equipment	Inspections and tests are conducted at a minimum of 66-day intervals plus or minus 5 days
11.	Car-Borne Signal Equipment	Inspections and tests are conducted at a minimum of 66-day intervals plus or minus 5 days
12.	Pre-Service Inspection	Every 27 Hours

Table 6-38: SIR Mechanical Division (Revenue Vehicles) Scheduled Maintenance Inspection (SMI)

MUE Mechanical (Non-Revenue Vehicles)	
Equipment	**Frequency**
1. Brake Shoe and Air Compressors	Inspections and tests are conducted every 90 days plus or minus 10 days
2. Air valves and Tread Brake Heads	Inspections and tests are conducted every 90 days plus or minus 10 days
3. Master Controller	Inspections and tests are conducted every 90 days plus or minus 10 days
4. Air Compressor	Inspections and tests are conducted every 90 days plus or minus 5 days ***Oil and Filter Change (1-year intervals)**
5. Door Systems	Inspections and tests are conducted every 90 days plus or minus 10 days
6. Converter and Control Group	Inspections and tests are conducted every 90 days plus or minus 10 days
7. Batteries	Inspections and tests are conducted every 90 days plus or minus 10 days
8. HVAC Systems	Inspections and tests are conducted every 90 days plus or 10 days
9. Truck Systems	Inspections and tests are conducted every 90 days plus or minus 10 days
10. Communication Equipment	Inspections and tests are conducted every 90 days plus or minus 10 days
11. Car-Borne Signal Equipment	Inspections and tests are conducted every 90 days plus or minus 10 days
12. Pre-Service Inspection	Inspections and Tests are conducted as needed

Table 6-39: SIR Mechanical Division (Non-Revenue Vehicles) Scheduled Maintenance Inspection (SMI)

INFRASTRUCTURE	
Equipment Inspection	**Frequency**
1. Sprinklers Systems at Clifton Mechanical Shop, NRS shop, 331 Bay St	Monthly, Quarterly, & Annually
2. Fire Extinguishers (Division-Wide)	• Monthly – Performed by the department responsible for the facility. Ex. Substation Facilities (Power Department), CIL Facilities (Signal Department), 331 Bay St, (Infrastructure Department). • Annual Inspection (W96) – Performed by the Infrastructure Department System-Wide.
3. Underground Storage Tanks at Maintenance Shops by Gen Mechanic or Foreman	Monthly

Table 6-40: ***SIR Non-Revenue Shop/331 Bay Street Inspection & Testing Program***

NRS (Non-Revenue Service)	
Equipment Inspection	**Frequency**
1. Non-Revenue Vehicle Fleet Inspection/Service	Once/3 months
2. Heavy Equipment Inspection/Service (Ballast tampers, ballast regulators, front end loaders, rail bound and rough terrain cranes)	Every 3 Months/As Needed
3. Small Equipment Inspection/Service (Forklifts, trailers, cherry pickers, pavement sweepers, skid steers)	Every 3 Months/As Needed

Table 6-41: ***SIR Non-Revenue Vehicle Shop Inspection & Testing Program***

ELECTRICAL	
Equipment	**Frequency**
1. Station Lighting	Monthly
2. Facility Lighting	Monthly
3. Emergency Generators at St. George Terminal MUE to Tompkinsville	Monthly

Table 6-42: SIR Electrical Inspection & Testing Program

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ELECTRONICS	
Equipment/Location	**Frequency**
1. Fire Alarm System (St. George Terminal Crew Qtrs., RCC, maintenance Shop and Facility Office	Monthly, Quarterly, Semi Annually and Annually
2. Fire Suppression Systems at the RCC	Semi Annually
3. Security Alarms At Train Stations	Monthly
4. AFC Maintenance – Emergency turnstile release at St. George and Tompkinsville	Monthly

Table 6-43: SIR Electronics Inspection & Testing Program

ENGINEERING	
Equipment/Location	**Frequency**
1. Bridges – NYS DOT Inspection	Annually

Table 6-44: SIR Engineering Inspection & Testing Program

TRACK DIVISION	
Equipment/Location	**Frequency**
1. Mainline Tracks by Track Inspector	Twice during a 7-day period
2. General Inspection of Entire Zone Superintendent/Supervisor (including yard tracks)	Quarterly
3. General Inspection of Subdivision by Track Superintendent/Manager	Semi Annual
4. Inspection of Mainline Switches by Superintendent/Supervisor	Annually
5. Yard Tracks by Track Inspector	Monthly

TRACK DIVISION	
Equipment/Location	**Frequency**
6. Ultrasonic Rail Flaw Detection (Mainline Tracks)	Annually
7. Track Geometry by TGC	At least once Annually
8. Mainline Switches and Joints (in conjunction w/ SIR Signals Section) by Track Inspector	Monthly & Whenever Failures Occur
9. Inspection after failure (in conjunction with SIR Signals Section) by Track Inspector	As Needed
10. Non-electrified Hand Thrown Yard Switches by Track Inspector	Quarterly

Table 6-45: SIR Track Division Inspection & Testing Program

6.2.4G DOS Supervisor Work Environment Inspection

I. Right-of-Way Work Environment

It is the responsibility of the MOW and Division of Facilities supervisors to establish a safe work environment when work is performed on the right-of-way as outlined in Subways Bulletin 2150 Establishing a Safe Right-of-Way Work Environment. Two checklists were developed to aid supervisors in this responsibility.

At the jobsite, before starting work, the supervisor in charge of the job, if present, must instruct his/her employees where to clear for passing trains (preferably on the same side of the track), advise of the presence of unusual obstructions, openings, or other hazards. The supervisor must complete the Right-of-Way (Trackway) Worker Maintenance Supervisors Field Observation Checklist (DOS Bulletin 21-50).

At the beginning of the tour the supervisor must conduct a job-specific Toolbox Safety Talk, discussing the requirements for establishing and maintaining a safe work environment as well as alerting personnel of the specific hazards associated with the task. The supervisor must complete the Right-of-Way (Trackway) Worker Toolbox Safety Talk Checklist (DOS Bulletin 21-50).

II. Off Track Environment

It is the responsibility of the MOW and Division of Facilities supervisors to establish a safe work environment when work is performed off the right-of-way as outlined in Subways Bulletin 21-49

Establishing a Safe Work Environment, Off Track. A checklist was developed to aid supervisors where work is performed along the system but off the right-of way. This checklist does not apply to employees who work at the industrial facilities referenced in the Subway Bulletin 23-22.
At the jobsite before starting work, the supervisor in charge of the job, if present, must inspect the area and advise employees of the presence of unusual obstructions, openings, or other hazards. The supervisor must complete the section entitled Non-Trackway Worker Maintenance Supervisors Field Observation Checklist (DOS Bulletin 21-49).

At the beginning of the tour the supervisor must conduct a job-specific Toolbox Safety Talk prior to the beginning of the tour's assigned task, discussing the requirements for establishing and maintaining a safe work environment as well as alerting personnel of the specific hazards associated with the task. The supervisor must complete the section entitled Non-Trackway Worker Toolbox Safety Talk Checklist (DOS Bulletin 21-49).

6.2.4H Resolution of Audit/Inspection Findings

DOS makes every effort to resolve any problems identified during audits/inspections. Methods utilized by DOS divisions for evaluating the effectiveness of maintenance programs and resolving problems identified during audits/inspections include the following:

- Recommendations made by either internal or outside auditors regarding DOS structures or facilities are reviewed by management and adopted (if viable). Trends are analyzed by management, and unusual or unacceptable trends are investigated.

- Evaluation of track maintenance programs is continuous, and revisions to maintenance schedules and/or equipment specifications are implemented by management as required.

- Scheduled maintenance, tests, and inspections of Signals devices are documented in section logbooks and on the approved Signals database. Revisions to maintenance schedules and/or equipment specifications are implemented by management as required.

- Any defects that cannot be corrected through replacement of parts, adjustments, or by assistance of other groups are reviewed by supervision - and work orders are submitted if needed for future action.

- Scheduled maintenance inspections are documented in the Rolling Stock Maintenance Information System (RSMIS). Problems/repairs are tracked by work orders generated in RSMIS system and remain open until actions (repairs, etc.) are implemented. Tracking and resolving of inspection program anomalies is achieved through Quality Assurance (QA) audit reports. Adverse findings are documented and closed upon verification of action plan implementation.

6.2.5 DOS Structural Inspections

6.2.5A MOW Engineering

In accordance with the Structural Inspection Policy Instruction (April 9, 2018) MOW Engineering is responsible for periodic inspections that relate to the structural elements of NYCT's rapid transit infrastructure including station structural elements. These annual visual inspections performed by MOW Engineering focus on the steel and concrete components. Table 6-46 (below) outlines the Division's inspection schedule and the titles of the individuals carrying out structural inspections. Chapter 6 of the P/I lists the same inspection frequencies.

The following is the minimum visual and special inspection frequency by structure type.

Structure Type	Frequency[9]
A. Bridges, Overpasses & Elevated Structures	
a. Elevated Structure	
i) Tangent …….….	Once a year
ii) Curved Structure ……...….	Twice a year
b. Bridges and Overpasses …….	Once a year
c. Viaduct……...…….....	Once a year
d. Special Structure	
i) Truss Bridges[4] …….……..	Annual visual, supplemental every 5 years
ii) High Elevated Structures[4]…..	Annual visual, supplemental every 5 years
iii) Marine structures[5]……..	Annual visual, supplemental every 5 years
B. At Grade Structures	
a. Open Cut ……...……..	Once a year
b. Embankment (under track only)...	Twice a week
C. Subway	
a. Cut and cover…….…….	Once a year
b. Mined or bored tunnels…...……	Once a year
c. Sidewalk Ventilators[1]	
i) Outside station limit……...	Once every 3 years
d. Under river Tubes……...…	Twice a year
e. Special Structure	
High Brick & Masonry Arch [4]	Annual visual, supplemental every 5 years
Non-Revenue Structure	Annual visual[8]

Structure Type	Frequency[9]
D. Stations	
a. Elevated……..	Once a year
b. At-grade……..……	Once a year
c. Subway… .....,,,,	Once a year
d. Special Structures	
i) Closed-up hangers[2]…..……	Annual visual, supplemental every 10 years
ii) Suspended Ceilings[3]…..…..	Annual visual, supplemental every 5 years
iii) High Brick & Masonry Arch[4].	Annual visual, supplemental every 5 years
iv) Ventilators[1]…….	Once every 2 years
v) Non-Revenue Structure	Annual Visual[8]
vi) Stations with Terra-Cotta Ceilings[10]	Twice a year visual, supplemental every 5 years
E. Rooms and Enclosures	
a. Electrical Manholes on ROW[6]	Once / 3 years (starting 2014)
b. Emergency exits[7]	Once / 2 Months
c. Unclassified (other)[6]…….	Per User Group Access Cycle
F. Boiler Rooms	Once a year [11]

Table 6-46: MOW Engineering's Structural Inspection

Notes: *1. Frequency is determined by the approved inspection cycle maintained by Div. of Stations and Div. of Infrastructure.*
2.Closed-up hangers are inspected annually by examining the architectural finishes and ceiling and floor for visual signs of structural distress...
3. Suspended ceilings are inspected from track, mezzanine and platform level for visual signs of structural distress.
4. These structures are visually inspected annually from track, platform, and street level as appropriate.
5. These structures are visually inspected annually from track and water level using a boat,
6. Identification of structural conditions is performed by personnel assigned to maintain the equipment and facilities located inside the enclosure. DOS Engineering provides support on an on-call basis to determine criticality of reported conditions.
7. Inspection of Emergency Exits is performed by Division of Infrastructure Personnel under most recent version of P/I 10.29
8. The need for supplemental inspections shall be determined based on the results of the first round of inspections scheduled to be completed in 2013
9. All structures, including those with pending repair projects, weather capital or operating, shall continue to be inspected according to the assigned inspection frequency, or more often if warranted by conditions.
10.Terra-Cotta ceilings are inspected from track, mezzanine & platform levels for visual signs of structural distress.
11. Inspection of Boiler Rooms is jointly performed by Civil/Structural Engineering and Division of Infrastructure Personnel.

MOW also responds to emergencies (in the event of falling concrete, etc.) or other special circumstances to provide unscheduled structural engineering evaluation services. Emergency inspections (in accordance with the MOU between MOW and Facilities of 2023).

MOW Engineering's Hazard Mitigation Process is described below:

In accordance with MOW Engineering's Structural Inspection P/I (4/9/2018) conditions identified during inspections are categorized according to severity depending on structure type as follows: Non-Structural Safety and Steel defects on the elevated structure: Severity 2 and Severity 4; Steel on all other Structures and Concrete on all structures Severity 1, Severity 2, Severity 3, Severity 4, Severity 5. Severity2 conditions are the most severe and require attention such as repair or monitoring within short time periods. Severity 5 conditions are less severe than Severity 2 conditions and are tracked on subsequent inspections and repaired when feasible by in-house forces or packaged into the capital program as funding becomes available. Severity 5 conditions are considered minor. Severity 4 designation is a placeholder to identify to track conditions that have been temporarily addressed for periodic monitoring and inclusion in the capital program..

- Categorized Severity 2 condition inspection findings are reported periodically to MOW Infrastructure, Facilities or Other appropriate divisions for repair or correction.

- Action & Follow-Up (in accordance with the Structural Inspection P/I chapter 7, 13, 16)

- Deficiencies discovered are to be addressed and repaired in accordance with "Standard Details for Structural Repairs" on file with MOW Engineering.

- When deficiencies are discovered and standard repairs are not applicable or sufficient, Engineers from Infrastructure Engineering will perform a field investigation and develop suitable repair details.

- Database Reports of conditions found are provided to responsible parties when requested and on a periodic basis. Structural Inspections are performed to ensure the operation readiness of NYCT operations and may not be suitable for other purposes, therefore RAW data is not provided to third parties. Per current NYSDOT practice, an annual report of elevated and bridge inspections is prepared and put on file and a certification of compliance is sent to NYSDOT every April.

- When an imminent danger to operations or safety is discovered by MOW Engineering staff, managers assigned to Infrastructure Engineering will notify Senior MOW and Stations officers and ensure that immediate action is taken to mitigate the condition.

- Responsible parties are to contact the Assistant Chief Officer of Infrastructure Engineering when necessary to arrange technical support with addressing structural deficiencies and conditions.

6.2.6 Construction & Development (C&D) Condition Assessment Inspection Program

MTA- Construction & Development (C&D) oversees the agency's Condition Assessment Inspection Program for the system's 493 stations. C&D utilizes consultant services to conduct system-wide condition inspection surveys; planned for every 5 years. The Condition Assessment Inspection Program is used to prioritize the Capital Construction Program for stations.

6.2.6A Station Condition Surveys

All station types are surveyed, including underground (subway), elevated, open cut, embankment, and viaduct construction. In order to plan, prioritize and effectively budget investment in the program, NYCT utilizes survey findings to assess station conditions and prioritize rehabilitation activities.

The inspections/surveys include all areas of a station, including public areas, restricted areas, and track areas (as part of platform edge inspections). The inspections do not include manholes, vaults, or the underside of elevated stations. The program does, however, include the inspection of ventilators.

The station inspections are visual and do not include material testing or detailed measurements of structural members. Binoculars are to be used to aid viewing of high areas as necessary.

Station components/subcomponents by type of construction are outlined in the most current "Station Inspection Manual".

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Subway Stations

- **Street Stairs**
  - Primary structural elements (roof, ceiling, and sidewalls)
  - Guardrails and curbs
  - Handrails
  - Treads/risers and landings
  - Canopy (if present)
  - Water Leakage

- **Interior Stairs**
  - Guardrails, curbs, treads /risers, stringers, and landings
  - Handrails
  - Water Leakage

- **Mezzanines/Passageways**
  - Roof/ceiling structures and sidewalls
  - Floors [DS]
  - Columns
  - Water Leakage

- **Platforms**
  - Roof/ceiling structure [DS]
  - Sidewalls
  - Floors [DS]
  - Platform Edge 1 – side platform [DS]
  - Platform Edge 1 – island platform (description) [DS]
  - Platform Edge 2 – island platform (description) [DS]
  - Columns and column bases [DS]
  - Guardrails
  - Water Leakage

- **Ventilators**
  - Exterior elements (gratings, frames, and concrete)
  - Interior structure (concrete drip pans, walls, beams, and roof)
  - Water Leakage

- **Control Houses**
  - Roof, concrete, steel, and roofing
  - Structural walls and columns
  - Floors Structural and Topping
  - Water Leakage

***Table 6-47:* Inventory of Subcomponents**

- **Ramps**
  - Primary Structure Elements (beams, columns)
  - Floor
  - Walls/guardrails
  - Ceiling

***Table 6-47:* Inventory of Subcomponents (continued)**

Elevated Stations

- **Street Stairs**
  - Primary structural elements (stringers, columns)
  - Treads, risers, landings, and guardrails
  - Handrails
  - Canopy/roof structure support
  - Water Leakage

- **Mezzanine/Platform Stairs**
  - Primary structural elements and stringers
  - Treads, risers, landings, and guardrails
  - Handrails
  - Sidewalls
  - Water Leakage

- **Mezzanines**
  - Primary structural elements (roofs, sidewalls)
  - Walls interior
  - Floor structure and slab
  - Mezzanine columns, main support beams
  - Mezzanine hangers
  - Through-track concrete
  - Water Leakage

- **Platforms**
  - Platform Edge 1 components – side platform [DS]
  - Platform Edge 1 components – island platform (description) [DS]
  - Platform Edge 2 components – island platform (description) [DS]
  - Floor [DS]
  - Floor Framing [DS]
  - Platform Girder Track side – side platform [DS]
  - Platform Girder Windscreen side – side platform [DS]
  - Platform Girder 1 Track side – island platform (description) [DS]
  - Platform Girder 2 Track side – island platform (description) [DS]
  - Floor jointing
  - Wall structure/windscreen [DS]
  - Guardrails
  - Columns Bases [DS]
  - Water Leakage

- **Platform Canopies (Metal)**
  - Structural Steel [DS]
  - Roofing/underlayment [DS]
  - Columns (except bases, which are rated as part of the Platform) [DS]

Table 6-47: Inventory of Subcomponents (continued)

- **Control Houses**
  - Roof, concrete, steel, and roofing
  - Structural walls and columns
  - Floors Structural and Topping
  - Water Leakage

- **Ramps**
  - Primary Structure Elements (beams, columns)
  - Floor
  - Walls/guardrails
  - Canopy

Table 6-47: Inventory of Subcomponents (continued)

Open Cut Stations

- **Street/Platform Stairs**
  - Primary structural elements (roof, ceiling & walls)
  - Guardrails, treads/risers, and landings
  - Handrails
  - Canopy (if present)
  - Water Leakage

- **Interior Stairs**
  - Guardrails, curbs, treads /risers, stringers, and landings
  - Handrails
  - Water Leakage

- **Mezzanines/Passageways**
  - Roof/ceiling structures and sidewalls
  - Floors [DS]
  - Columns
  - Water Leakage

- **Platforms**
  - Floor under canopy [DS]
  - Floor beyond canopy – north end
  - Floor beyond canopy – south end
  - Floor jointing
  - Sidewalls, retaining walls, or windscreens [DS]
  - Platform Edge 1 and support wall – side platform [DS]
  - Platform Edge 1 and support wall – island platform (description) [DS]
  - Platform Edge 2 and support wall – island platform (description) [DS]
  - Column bases (steel canopy) [DS]
  - Water Leakage

- **Lower Platforms**
  - Roof/ceiling structure [DS]
  - Floor under canopy [DS]
  - Floor beyond canopy – north end
  - Floor beyond canopy – south end
  - Floor jointing
  - Sidewalls, retaining walls [DS]
  - Platform Edge 1 and support wall – side platform [DS]
  - Platform Edge 1 and support wall – island platform (description) [DS]
  - Platform Edge 2 and support wall – island platform (description) [DS]
  - Columns and column bases [DS]
  - Water Leakage

***Table 6-47:* Inventory of Subcomponents (continued)**

- **Platform Canopies (Metal)**
  - Structural Steel [DS]
  - Roofing/underlayment [DS]
  - Columns (except bases, which are rated as part of the Platform) [DS]
  - Water Leakage

- **Platform Canopies (Concrete)**
  - Roofing/Underlayment [DS]
  - Structural Concrete [DS]
  - Columns [DS]
  - Water Leakage

- **Tunnel/Overpass Structure within station platform**
  - Primary structural elements (roof, ceiling, walls)
  - Water Leakage

- **Control Houses**
  - Roof, concrete, steel, and roofing
  - Structural walls and columns
  - Floors Structural and Topping
  - Water Leakage

- **Ramps**
  - Primary Structure Elements (beams, columns)
  - Floor
  - Walls/guardrails
  - Canopy

Table 6-47: ***Inventory of Subcomponents (continued)***

Embankment Stations

- **Street/Platform Stairs**
  - Primary structural elements (roof, ceiling, walls)
  - Guardrails, treads/risers, and landings
  - Handrails
  - Canopy (if present)
  - Water Leakage

- **Mezzanines/Passageways**
  - Roof/ceiling structures and sidewalls
  - Floors [DS]
  - Columns
  - Water Leakage

- **Platforms**
  - Floor under canopy
  - Floor beyond canopy – north end
  - Floor beyond canopy – south end
  - Floor jointing
  - Sidewalls, retaining walls, parapet walls [DS]
  - Platform Edge 1 and support wall – side platform
  - Platform Edge 1 and support wall – island platform (description)
  - Platform Edge 2 and support wall – island platform (description)
  - Column bases (steel canopy) [DS]
  - Windscreens
  - Water Leakage

- **Platforms (SIR)**
  - Floors [DS]
  - Floor jointing
  - Sidewalls, retaining walls, parapet walls [DS]
  - Piers/Column Support to Platform [DS]
  - Platform Edge 1 and support wall – side platform
  - Platform Edge 1 and support wall – island platform (description)
  - Platform Edge 2 and support wall – island platform (description)
  - Column bases (steel canopy) [DS]
  - Windscreens
  - Water Leakage

- **Platform Canopies (Metal)**
  - Structural Steel [DS]
  - Roofing/underlayment [DS]
  - Columns (except bases, which are rated as part of the Platform) [DS]
  - Water Leakage

***Table 6-47:* Inventory of Subcomponents (continued)**

- **Platform Canopies (Concrete)**
  - Canopy roof and parapet walls
  - Canopy Columns
  - Water Leakage

- **Embankment, Soil Erosion & Foundations**
  - Embankment, soil erosion & foundations

- **Overpass Structure System**
  - Overpass structure system
  - Water Leakage

- **Control Houses**
  - Roof, concrete, steel, and roofing
  - Structural walls and columns
  - Floors Structural and Topping
  - Water Leakage

- **Ramps**
  - Primary Structure Elements (beams, columns)
  - Floor
  - Walls/guardrails
  - Canopy

Table 6-47: Inventory of Subcomponents (continued)

Viaduct Stations

- **Street Stairs**
  - Primary structural elements (stringers, columns)
  - Treads, risers, landings, and guardrails
  - Handrail
  - Canopy/roof structure support
  - Water Leakage

- **Mezzanine/Platform Stairs**
  - Primary structural elements and stringers
  - Treads, risers, landings, and guardrails
  - Handrail
  - Sidewalls
  - Water Leakage

- **Mezzanines**
  - Primary structural elements (roofs, sidewalls)
  - Walls interior
  - Floor structures
  - Mezzanine columns, main support, hangers, and beams
  - Water Leakage

- **Platforms**
  - Platform Edge 1 components – side platform [DS]
  - Platform Edge 1 components – island platform (description) [DS]
  - Platform Edge 2 components – island platform (description) [DS]
  - Floor under canopy [DS]
  - Floor beyond canopy – north end
  - Floor beyond canopy – south end
  - Floor over mezzanine at through span
  - Floor jointing
  - Wall structure/windscreen and guardrail [DS]
  - Columns bases [DS]
  - Water Leakage

- **Platform Canopies (Metal)**
  - Structural Steel [DS]
  - Roofing/underlayment [DS]
  - Columns (except bases, which are rated as part of the Platform) [DS]
  - Water Leakage

- **Columns and Piers**
  - Columns and Piers

***Table 6-47:* Inventory of Subcomponents (continued)**

(Structural) - Viaduct Stations

- **Veneer Finishes**
  - Veneer finishes

- **Control Houses**
  - Roof, concrete, steel, and roofing
  - Structural walls and columns
  - Floors Structural and Topping
  - Water Leakage

- **Ramps**
  - Primary Structure Elements (beams, columns)
  - Floor
  - Walls/guardrails
  - Canopy

Table 6-47: Inventory of Subcomponents (continued)

Subway Stations

- **Street Stairs**
  - Walls (tiles only)
  - Painting
  - Lighting
  - Emergency Lighting

- **Interior Stairs**
  - Walls (tiles only) – Interior and Exterior (under stairs at platform)
  - Painting
  - Lighting
  - Emergency Lighting

- **Mezzanines/Passageways**
  - Walls (tiles only) [DA]
  - Suspended Ceilings [DA]
  - Floor Finish [DA]
  - Painting
  - Lighting [DA]
  - Emergency Lighting [DA]

- **Platforms**
  - Walls (tiles only) [DA]
  - Suspended Ceilings [DA]
  - Floor Finish [DA]
  - Platform edge detectable warning strip [DA]
  - Painting
  - Lighting
  - Emergency Lighting

- **Ventilators**

  (Not applicable.)

- **Control Houses**
  - Walls – Interior and Exterior [DA]
  - Ceilings [DA]
  - Windows and Doors
  - Floor Finish [DA]
  - Painting
  - Lighting
  - Emergency Lighting

- **Ramps**

  (Not applicable.)

Table 6-47: Inventory of Subcomponents (continued)

Elevated Stations

- **Street Stairs**
  - Painting
  - Lighting
  - Emergency Lighting
- **Mezzanine/Platform Stairs**
  - Wall Finishes
  - Painting
  - Lighting
  - Emergency Lighting
- **Mezzanines**
  - Walls – Interior and Exterior [DA]
  - Ceiling [DA]
  - Windows and Doors
  - Floor Finish [DA]
  - Painting
  - Lighting
  - Emergency Lighting
- **Platforms**
  - Painting
  - Lighting [DA]
  - Emergency Lighting
  - Platform edge detectable warning strip [DA]
- **Platform Canopies (Metal)**
  - Painting
  - Lighting
  - Emergency Lighting
- **Control Houses**
  - Walls – Interior and Exterior [DA]
  - Ceiling [DA]
  - Windows and Doors
  - Floor Finish [DA]
- **Control Houses (Cont'd)**
  - Painting
  - Lighting
  - Emergency Lighting
- **Ramps**

  (Not applicable.)

Table 6-47: Inventory of Subcomponents (continued)

Open Cut Stations

- **Street/Platform Stairs**
  - Painting
  - Lighting
  - Emergency Lighting
- **Interior Stairs**
  - Walls (tiles only) – Interior and Exterior (under stairs at platform)
  - Painting
  - Lighting
  - Emergency Lighting
- **Mezzanines/Passageways**
  - Walls (tiles only) [DA]
  - Suspended Ceilings [DA]
  - Floor Finish [DA]
  - Painting
  - Lighting [DA]
  - Emergency Lighting [DA]
- **Platforms**
  - Painting
  - Lighting [DA]
  - Emergency Lighting
  - Platform edge detectable warning strip [DA]
- **Lower Platforms**
  - Painting
  - Lighting [DA]
  - Emergency Lighting
  - Walls (tiles only) [DA]
  - Platform edge detectable warning strip [DA]
- **Platform Canopies (Metal)**
  - Painting
  - Lighting
  - Emergency Lighting

Table 6-47: Inventory of Subcomponents (continued)

(Architectural / Painting / Lighting) - Open Cut Stations

- **Platform Canopies (Concrete)**
  - Painting
  - Lighting
  - Emergency Lighting

- **Tunnel/Overpass Structure within station platform**
  - Painting
  - Lighting
  - Emergency Lighting

- **Control Houses**
  - Walls – Interior and Exterior [DA]
  - Ceiling [DA]
  - Windows and Doors
  - Floor Finish [DA]
  - Painting
  - Lighting
  - Emergency Lighting

- **Ramps**

  (Not applicable.)

Table 6-47: ***Inventory of Subcomponents (continued)***

(A1 ions

Embankment Stations

- **Street/Platform Stairs**
  - Painting
  - Lighting
  - Emergency Lighting
  - Walls (tiles only)

- **Mezzanines/Passageways**
  - Walls (tiles only) [DA]
  - Suspended Ceilings [DA]
  - Floor Finish [DA]
  - Painting
  - Lighting [DA]
  - Emergency Lighting [DA]

- **Platforms**
  - Painting
  - Lighting [DA]
  - Emergency Lighting
  - Platform edge detectable warning strip [DA]

- **Platforms (SIR)**
  - Painting
  - Lighting [DA]
  - Emergency Lighting
  - Platform edge detectable warning strip [DA]

- **Platform Canopies (metal)**
  - Painting
  - Lighting
  - Emergency Lighting

- **Platform Canopies (concrete)**
  - Painting
  - Lighting
  - Emergency Lighting

- **Embankment, Soil Erosion & Foundations**
  (Not applicable.)

Table 6-47: Inventory of Subcomponents (continued)

(Architectural / Painting / Lighting) - Embankment Stations

- **Overpass structure system**
  - Painting
  - Lighting
  - Emergency Lighting

- **Control Houses**
  - Walls – Interior and Exterior [DA]
  - Ceiling [DA]
  - Windows and Doors
  - Floor Finish [DA]
  - Painting
  - Lighting
  - Emergency Lighting

- **Ramps**

  (Not applicable.)

Table 6-47: ***Inventory of Subcomponents (continued)***

Viaduct Stations

- **Street Stairs**
  - Wall Finishes – Interior
  - Painting
  - Lighting
  - Emergency Lighting
- **Mezzanine/Platform Stairs**
  - Wall Finishes – Interior
  - Painting
  - Lighting
  - Emergency Lighting
- **Mezzanines**
  - Walls – Interior and Exterior [DA]
  - Ceiling [DA]
  - Windows and Doors
  - Floor Finish [DA]
  - Painting
  - Lighting
  - Emergency Lighting
- **Platforms**
  - Wall Finishes – Interior and Exterior [DA]
  - Platform edge detectable warning strip [DA]
  - Windows
  - Painting
  - Lighting [DA]
  - Emergency Lighting
- **Platform Canopies (Metal)**
  - Painting
  - Lighting
  - Emergency Lighting
- **Columns and Piers**
  - Painting

***Table 6-47:** Inventory of Subcomponents (continued)*

(Architectural / Painting / Lighting) - Viaduct Stations

- **Veneer Finishes**
  (Not applicable.)

- **Control Houses**
  - Walls – Interior and Exterior [DA]
  - Ceiling [DA]
  - Windows and Doors
  - Floor Finish [DA]
  - Painting
  - Lighting
  - Emergency Lighting

- **Ramps**
  (Not applicable.)

Table 6-47: ***Inventory of Subcomponents (continued)***

6.2.6B Construction & Development Hazard Management Process

C&D uses rating systems to grade the condition of station structural elements (that require inspection), as well as the specific architectural components, painting, and lighting of each station. The two systems rate each component numerically from 1 to 5 as referenced in the "Station Inspection Manual". A rating of '1' would indicate that a station component, subcomponent or condition has no observable deficiencies; whereas a rating of '5' would indicate structure does not function as designed and/or the level of deterioration is such that non-function may be imminent. The rating systems are as follows:

I. Structural Numerical Rating System

Each station, depending on type (subway, elevated, etc.) has a defined list of primary components (street stairs, platforms, mezzanines, etc.). Each component is further broken down into subcomponents. Each subcomponent in a station is assigned a Structural Numerical Rating by the inspector in accordance with the guidelines provided in the "Station Inspection Manual". No component or station ratings are calculated from the subcomponent ratings.

II. Architectural/Painting/Lighting Numerical Rating System

A list of subcomponents is assigned a numerical rating by the inspector in accordance with the guidelines provided in the "Station Inspection Manual". Similar to the Structural Numerical Rating System, no component or station ratings are calculated from the subcomponent ratings. Architectural/Painting/Lighting Subcomponent Ratings are stand-alone ratings and do not reflect the overall condition of the station.

Upon completion of the Station Condition Surveys by the consultants (whereby ratings/prioritizations have been established), the surveys are uploaded to the DRAW program and submitted to the Division of Capital Planning & Budget (CPB). In accordance with the surveys, CPB analyzes the survey data

in conjunction with the Department of Subways. Rating thresholds are defined to determine which defects qualify to be included in capital projects (e.g. 5-year Capital Plan).

6.2.7 Facility Inspection

6.2.7A Department of Subways

The Daily Department of Subways Facility Safety Checklist (in accordance with Subways Bulletin 23-22) is required to be completed in Subways industrial type facilities. The facilities that adopt this form no longer have to comply with Crew Quarters Inspection requirements and the Daily Maintenance Supervisor Safety Checklist requirements.

POST ON ALL BULLETIN BOARDS

NEW YORK CITY TRANSIT
DEPARTMENT OF SUBWAYS
OFFICE OF THE SENIOR VICE PRESIDENT

DATE: **September 30, 2021**

TO: **All Subways Superintendents and Supervisors**

FROM: **Jacqueline Kuhls, Vice President & Chief Officer, Operations Support, Subways**

SUBJECT: **SUBWAYS BULLETIN 21-48**
FACILITY SAFETY CHECKLIST
(Supersedes Subways Bulletin 17-16)

This is to remind all Subways superintendents and supervisors that the **Daily Department of Subways Facility Safety Checklist** is required to be completed in Subways industrial type facilities, to comply with the *NYCT Safety Goal Action Plan (SGAP) and System Safety Program Plan (SSPP).*

SGAP Action Element 2-2
Supervisors must observe the work environment to identify and correct unsafe conditions. Engage employees in this process and ask for their input. Document the observations and implement employee suggestions if needed.

Agency Safety Plan, Section 6.2.7A
The Daily Department of Subways Facility Safety Checklist is required to be completed in Subways industrial type facilities.

The facilities listed in Attachment 1 require the completion of a facility checklist because they have one or more of the following characteristics:

- Shop/Machinery Activities
- Powered Industrial Truck Use
- Hazardous Material Handling/Use
- Hazardous Material Storage

The checklist (Attachment 2) may be modified to include unique facility/divisional safety issues not included here, with DOS Safety approval. Call (718) 694-1216.

The checklist must be maintained for a period of **two (2) years** at the facility for review and inspection by management.

These facilities are not required to comply with *Crew Quarter Inspection* requirements and the *Daily Maintenance Supervisor Safety Checklist* requirements.

Ensure this bulletin is discussed by supervisors with all hourly employees during safety/toolbox talks.

Attachments

cc:	D. Crichlow	T. Doddo	M. Carrube (SSSA)
	M. Brown	L. Montanti	V. Modafferi (TSO)
	S. Carson	C. Hamann	M. Bucceri (UTLO)
	S. Ko	T. Mulligan	T. Wilson (SMART)
	B. Thomas	P. Kohner	V. Mandile (TCU)
	Office of the VP, SD	G. Santana	M. Cummings (ATDA)
	Office of the VP, MOW	T. Utano (TWU)	

All other Subways, non-office reporting locations are required to complete the weekly Crew Quarters Inspection Checklist. The facilities include but are not limited to those listed in the following table because they have one or more of the following characteristics:

I. Shop/Machinery Activities
II. Powered Industrial Truck Use
III. Hazardous Material Handling/Use
IV. Hazardous Material Storage

Subways Facility List

Division	Facility Names	
DCE	All Maintenance Shops All Overhaul Shops	Pelham Diesel Shop
EMD	Central Electronics Shop	Glendale Shop (AFC)
Infrastructure	Cozine Shop (Iron) Tiffany Shop (Iron) Glendale Shop (ICC) 129 Jamaica Avenue (ICC) Bergen Shop, (Facilities)	148TH Street Shop (HVAC) 38th Street Shop (HVAC) Broadway-Lafayette (Hydraulics) Sands Street (Hydraulics)
Track	Small Tool Shop (1500 Linden Blvd.) Fabrication Shop (1500 Linden Blvd.) Fleet Operations (1500 Linden Blvd.)	Production Equipment Shop (38th Street Yard) Production Equipment Shop (Westchester Yard)
Signals	215th Street Shop	
Power	100 Locust Ave (Cable) 1114 Atlantic Avenue (Cable) Pitkin Yard (Test)	
Station Environment	Station Maintenance Facilities: ° Conway Street ° 145th St and St Nicholas Avenue ° Roosevelt Avenue ° 99th Street Fire Extinguisher Shop ° Hoyt/Schermerhorn Shop ° Bedford Avenue ° 14th Street/6th Avenue	° Grand Central Station ° Stillwell Avenue ° 125th Street/St. Nicholas ° East 180th Street ° 168th/St. Nicholas ° Myrtle/Wyckoff ° Queens Plaza ° 2nd Avenue
	Quay Street (Mobile Wash) Stillwell Avenue (Refuse Operations)	
Staten Island Railway	845 Bay Street (Clifton Shop) 331 Bay Street (MOW Shop) 291 Bay Street (Non-Revenue Shop)	

Table 6-48: Subways Facilities List

The Daily Facility Safety Checklist lists safety issues that are commonly encountered in Subways shop facilities. It may be modified to include unique facility/divisional safety issues not included here. Modifications must have DOS Safety approval. The checklist must be maintained for a period of 90 days at the facility for review and inspection by management.

6.2.7B Service Delivery

I. The division is primarily accountable for the provision of customer service relating to train operations.

II. Service Delivery facilities subject to inspection include the following, which are not included on Subways Facilities List:

- Signal Towers

The Supervisor and Tower Operator assigned to the Signal Towers inspects the facility upon arrival on each tour. Results of the inspection are entered in the Daily Signal Tower Checklist (Bulletin No. 74-19).

- Subways Terminal Crew Quarters

Subways Terminal Crew Quarters are inspected weekly and results are recorded on the *Weekly Crew Quarters Inspection Form*. The *Weekly Crew Quarters Inspection Form* includes fields that require that the individual conducting the inspection verify and record that important document (e.g., emergency evacuation plan) and signs (e.g. emergency exits) are posted. In addition, it requires that the individual verify and record that egresses are clear of debris, flammable/combustible materials are properly stored, and that employees are adhering to the principals of 'good housekeeping' (in efforts to prevent slips, trips, and falls).

III. Local Safety Committee Meetings, inclusive of monthly labor/management, 'Safety Committee' facility walk-through inspections are conducted utilizing the Local Safety Committee checklist. All findings are documented and tracked utilizing the Safety Inspection Tracking form.

IV. Periodic safety audits are also conducted by managers utilizing the SMAT Observation Form.

V. When action is required, the supervisor/manager corrects the condition or contacts the appropriate section/division to have the condition (e.g., damaged flooring, stairs, or handrails) corrected/rectified.

6.2.7C Maintenance of Way

I. Work Site Inspections

MOW Supervisors conduct daily safety inspections of work sites in accordance with the Daily Subways Maintenance Supervisor Checklist.

II. Division of Track and Division of Infrastructure

Track and Infrastructure is responsible for maintaining NYCT's network of track and track-related infrastructure, as well as structural elements of DOS facilities. The subdivision's facilities are located throughout the system. For MOW facilities that are not included on Table 6-48 – Subways Facilities List, supervision shall use the following:

- Supervisors conduct weekly safety inspections of crew quarters in accordance with the Weekly Crew Quarters Inspection Form.

- Requests for minor construction repairs for defects identified during facility inspections are assigned to the appropriately titled Structure Maintainers (e.g., Masons, Carpenters, etc.).

- In addition, monthly labor/management 'Safety Committee' facility walk-through inspections are conducted utilizing the Local Safety Committee checklist. All findings are documented and tracked utilizing the Safety Inspection Tracking form.

III. Power (Electrical & Third Rail)

The Subdivision of Electrical is responsible for inspecting and maintaining NYCT's power and signal systems. For Electrical facilities that are not included on Subways Facilities List, supervision shall use the following to ensure Safety Risk Mitigation:

- Supervisors conduct weekly safety inspections of crew quarters in accordance with the Weekly Enclosures Inspection Form.

- Monthly safety committee meetings are held with the unions present

- SMAT Audits are performed monthly by all Managers

- Supervisors are responsible for Semi-Annual Employee Enclosure Condition Check Off List and Semi-Annual Enclosure Material List.

- Power facilities subject to inspection include the many substations located throughout the system. It should be noted that these inspections for the most part, are conducted on equipment housed with the substations themselves.

- Substations are inspected according to a specific schedule based upon the type of equipment housed within each structure.

- Power supervisory inspections include Control Room Inspection and Cable Sheath Panel Test. Supervisory inspections are being done bi-monthly unless instructed otherwise in this document.

- Power Supervisors conduct a job specific Toolbox Safety Talk discussing requirements for establishing and maintaining a safe work environment as well as alerting personnel of the hazards specific to their task. This is in accordance with the Subway Right of Way (Trackway) Worker Toolbox Safety Talk Checklist.

IV. Signals

The Subdivision of Signals is responsible for inspecting and maintaining NYCT's signal systems. For facilities that are not included on Subways Facilities List, supervision shall use the following to ensure Safety Risk Mitigation:

- Supervisors conduct weekly safety inspections of crew quarters in accordance with the Weekly Enclosures Inspection Form.

- Monthly safety committee meetings are held with the unions present

- SMAT Audits are performed monthly by all Managers

- Supervisors are responsible for Semi-Annual Employee Enclosure Condition Check Off List and Semi-Annual Enclosure Material List.

- Signal Supervisors conduct a job specific Toolbox Safety Talk discussing requirements for establishing and maintaining a safe work environment as well as alerting personnel of the hazards specific to their task. This is in accordance with the Subway Right of Way (Trackway) Worker Toolbox Safety Talk Checklist.

6.2.7D Division of Car Equipment (DCE)

DCE is responsible for inspecting and maintaining both revenue and non-revenue railcar equipment. DCE hourly/supervisory employees conduct daily facility inspections using the Daily Department of Subways Facility Safety Checklist. In addition, monthly facility safety inspections are conducted as part of union-management safety committee meetings (in accordance with the most recent version of Policy Instruction 10.30, "Safety Committees" and utilizing the Local Safety Committee form and the Safety Inspection Tracking form. All findings are documented and remain "open" (with a running day count) until resolved.

DCE facilities subject to inspection include the following:

- Railcar Maintenance Facilities (Revenue)
- Railcar Overhaul Facilities (Revenue) and Associated Shops
- Car Wash Facilities
- Work Train and Equipment Maintenance Facility (Pelham Diesel Shop)

6.2.7E Customer Environment & Facilities

Station Environment & Operations Station Supervisors conduct inspections of subway stations and crew quarters in accordance with the schedule outlined in Station Environment & Operations Facility Inspection Table, utilizing the Enterprise Asset Management system (EAM) which encompasses the Station Inspection Report, non-conformity notification and joint Slips Trips and Falls inspections. Maintenance Supervisors perform DOS Daily Facility Safety Inspection Checklists at the maintenance shops. Additionally, managers periodically conduct random safety audits at those locations. When action is required, the supervisor/manager either instructs employees to correct the condition (if it is housekeeping or hazardous related conditions) or notifies the appropriate section/division to have the condition corrected/rectified (if it is maintenance-related). Subsequent to any remedial action taking place (e.g., facility repairs), management/supervision conducts follow-up inspections to ensure that proper action has been completed. The EAM system tracks the completion of each repair and the progress toward meeting established repair goals that have been established.

Station Maintenance Supervisors conduct daily safety inspections of work sites in accordance with the Daily Subways Maintenance Supervisor Checklist, Table 6-49.

STATION ENVIRONMENT & OPERATIONS FACILITY INSPECTIONS			
INSPECTION	**FREQUENCY**	**PERSONNEL ASSIGNED**	**DOCUMENTATION**
Top Twenty-Five 'Slip, Trip & Fall' Stations	Daily	Station Supervisor	EAM System
Top Twenty-Five "Slip, Trip & Fall" Stations	Bi-Weekly (twice a month)	Station Supervisor & Station Maintenance Supervisors	EAM System
All Stations (472 in total)	Weekly	Station Supervisor	EAM System
Monthly Fire Safety All Stations Inspection (472 in total)	Monthly	Station Supervisor	EAM System
Crew/Reporting Quarters Inspection	Weekly	Station Supervisors	Crew Quarters Inspection Form
Eyewash Unit Inspection	Yearly	Maintenance Supervisors	EAM System
Eyewash Unit Inspection	Weekly	Station Supervisor (at stations) and Maintenance Supervisor (at shops)	EAM System
Industrial Facility Inspection	Daily	Station Maintenance Supervisor	DOS Daily Facility Safety Inspection Checklist

Table 6-49: Station Environment & Operations Facility Inspections

Supervisory inspections of subway stations are designed to ensure (at a minimum) the following:

- Restrooms (Public/Employee) are operating unobstructed and clear of debris
- Egresses (including stairwells) are clear and unobstructed
- Exit signs are posted
- Escalators (if present) are operating, unobstructed and clear of debris
- Elevators (if present) are operating, unobstructed and clear of debris
- Turnstiles (traditional) and high entry/exit turnstiles (HEETs) are operating and unobstructed
- Station lighting is adequate and emergency lighting is operational
- Fire protection and alarm systems are in place
- Mezzanines and platforms are clear of debris and other hazards
- Garbage receptacles are emptied in a timely manner

Station Environment & Operations Hazard Management Process:

Station Environment and Operations Hazard Management Process is outlined in Section 6.2.7e.

Supervisory inspections of subway stations (and associated equipment) consist of identifying defects, observing cleanliness and reporting findings in order to ensure action is taken. Supervisors categorize each reported defect as follows:

- Severity 1 - Catastrophic Failure – Immediate response (i.e. 6-Wire notifications)
- Severity 2 - Significant Failure - Condition made safe or completion of repair(s) within 24 hours.
- Severity 3 - Partial Failure Requiring completion of repair(s) within 30 days.
- Severity 4 -Reduced Performance Requiring completion of repair(s) within 60 days
- Severity 5 - Superficial Projects

Severity 1 or 2 conditions are generally safety-related, security-related, or revenue-related conditions requiring prompt attention. Severity 3 or 4 conditions are generally aesthetic in nature and are not considered to be emergencies.

Severity 3 conditions are any Severity 1 or 2 conditions/defects made safe, whereby repairs have not yet been completed. Examples include all non-safety defects in public and employee restroom and all non-safety service booth defects. Follow-up inspections are conducted by supervision both throughout and subsequent to any station repair work to ensure that proper action has taken place.

The Station Environment & Operations Hazard Management Process for “A” Defects/Severity 2 Table 6-50 and the Station Environment & Operations Hazard Management Process for “B” Defects/Severity 3 Table 6-50 outline the system utilized by Station Environment & Operations to prioritize defects identified during the inspection process.

Severity "2" Nonconformities
(Safety/Security/Revenue Issues)
(Must be completed within 24 hours of reported date)

SEVERITY "2" NONCONFORMITY	**DESCRIPTION**
RUBBING BOARD	A rubbing board that is loose or missing.
WATER CONDITION	A water condition that is affecting passenger movement or AFC equipment. Any water observed at or above the station drain grating.
OVERHEAD THREATS	Loose overhead objects: signs, drip pans, light fixtures, or spalling concrete.
TRIP HAZARDS	A change in elevation or protruding item greater than ¼ inch or loose floor surface.
STAIRWAY TREADS	Any worn ***(see sample attachment 7),*** loose or missing stairway tread.
HANDRAIL	Any unsafe handrails.
UNSECURED OBJECTS	Any object such as benches, trash receptacles, etc., that can be thrown on the tracks or obstruct the passengers right of way.
AGENT BOOTH	Defects that affect safety and security of the agent.
LIGHTING	A condition which can create an unsafe environment on a station **(6 consecutive fixtures out).**
VENT GRATINGS	Missing or damaged gratings within the station confines.
DOORS	Any door accessible to the public that cannot be secured.
TOILETS	**No** operational commode, sink or unsecured bathroom.
GRAFFITI	Offensive graffiti on painted surfaces.

Table 6-50: Station Environment & Operations Hazard Management Process for Severity 2 Nonconformities

Severity "3" Nonconformities
(Non-Safety/Non-Security/Non-Revenue Related Issues)
(Must be completed within 30 days of reported date)

SEVERITY "3" NONCONFORMITIES	**DESCRIPTION**
TURNED OVER SEVERITY "2" NONCONFORMITIES	Severity "2" Nonconformities made safe.
SERVICE BOOTH	Any defect that does not constitute a Severity "2" Nonconformity
TOILETS	Any condition that is not a Severity "2" Nonconformity

Table 6-51: Station Environment & Operations Hazard Management Process for Severity 3 Nonconformities

I. Electronics Maintenance

The Electronics Maintenance subdivision is responsible for inspecting and maintaining NYCT's electronic equipment system wide. Electronics Maintenance supervisors conduct daily facility inspections at the Central Electronics Shop (CES), 2020 Broadway, (ENY) and the Glendale shop utilizing the Daily Department of Subways Facility Safety Checklist.

The Glendale shop has moved to 33 Williams Place, Brooklyn.

6.2.7F Staten Island Railway (SIR)

SIR is run much like an individual railroad and shares similar inspection responsibilities with that of other DOS divisions (but on a much smaller scale). Management/supervision for Staten Island Railway's 15 major units are responsible for overseeing their individual facilities and related equipment. The 15 units are as follows:

- Transportation/Operations Control Center
- Mechanical
- Cleaning Services
- Power
- Signals
- Infrastructure
- Electrical/Electronic
- Track
- Third Rail
- Non-Revenue Vehicles
- Finance & Procurement
- Operations Support
- General Office
- Capital & Engineering
- Information Technology

SIR facilities subject to inspection include the following:

- Clifton Yard – Mechanical Shop (Revenue)
- Tompkinsville Yard Non-Revenue Shop
- Train Stations (21 in total)
- SIR Property located at the St. George Terminal (Staten Island Ferry)
  - SIR's Rail Control Center or RCC
  - St. George Terminal Crew Quarters
- Substations and Breaker Houses
- 331 Bay Street, SIR (MOW. Infrastructure, Signals/Power)

STATEN ISLAND RAILWAY (SIR) STATIONS INSPECTIONS			
EQUIPMENT / CONDITION	**INTERVAL**	**TITLE OF INSPECTOR**	**PROCEDURE**
Station cleanliness	Daily	Station cleaner	Station cleaning report
	MONTHLY	CLEANER FOREMAN	SUPERVISORY STATION CLEANING REPORT
Station lighting	Monthly	Electrical maintainer	…
Station fire	Monthly	Electronics maintainer	…

Table 6-52: SIR Stations Inspections

Equipment/Location	**Frequency**
• Station Cleanliness	Daily (Station Cleaner)
	Monthly (Foreman)
• Facility Safety Inspection Checklist (except Clifton Shop will be daily)	Weekly
• Crew Quarters Inspection Form	Weekly
• Staten Island Daily Foreman/supervisor Checklist	Daily
• Local Safety Committee Monthly Meeting	Monthly

Table 6-53: SIR Infrastructure Inspections

6.2.8 DOS Storm Surge Mitigation Equipment (SSME), Deployment, Maintenance and Spare Part Inventory Plan

6.2.8A DOS SSME Deployment Plan

DOS SSME assets are required, when feasible, to be deployed on an annual basis, except when noted in existing procedural documents. The deployment can be during a DOS Coastal Storm Drill, a planned event, such as when a General Order (G.O.) or an Exclusive Track Occupancy (ETO) exists for that location, or during an inspection.

In January, Work Orders are activated to capture the maintenance records for each asset. These work orders will also capture the date the asset was deployed, the length of time it took to deploy the asset, and the number of personnel required to deploy it.

Table 6-54 identifies the assets whose deployment will result in a service interruption. The deployment of these assets requires a scheduled G.O./ETO. The assets requiring a G.O./ETO are also identified on the asset record in EAM. The table below will be reviewed and updated during the yearly update of the Annual Safety Plan.

Table 6-54 The SSME assets which require a G.O./ETO for deployment.

System	Description	Class	Responsible Division	Borough	In/Nearest Station
858309	FDP: 436 - Harlem-148th St - Signal Rm End Of Plat Internal Prot - 1	ST-FLDPN	DOS-SEO-MNT	MANHATTAN	436-HARLEM-148ST-LWP-3
858310	FDP: 436 - Harlem-148th St - Signal Rm End Of Plat Internal Prot - 2	ST-FLDPN	DOS-SEO-MNT	MANHATTAN	436-HARLEM-148ST-LWP-3
858311	FDP: 436 - Harlem-148th St - Signal Rm End Of Plat Internal Prot - 3	ST-FLDPN	DOS-SEO-MNT	MANHATTAN	436-HARLEM-148ST-LWP-3
859744	FLG: 436 - Harlem-148th St-Comm Rm Right Of Way Internal Prot - 1	IN-FLDLG	DOS-MOW-INF-HYD	MANHATTAN	436-HARLEM-148ST-LWP-3
859745	FDP: 436 - Harlem-148th St-Comm Rm Right Of Way Ac Box Panels Internal Prot - 1	IN-FLDPN	DOS-MOW-INF-HYD	MANHATTAN	436-HARLEM-148ST-LWP-3
859746	FDP: 436 - Harlem-148th St-Comm Rm Right Of Way Ac Box Panels Internal Prot - 2	IN-FLDPN	DOS-MOW-INF-HYD	MANHATTAN	436-HARLEM-148ST-LWP-3
858398	FLG: 058 - Coney Island-Stillwell Av - PV Inverter Rm Street Level Internal Prot	ST-FLDLG	DOS-SEO-MNT	BROOKLYN	058-CONEYISLAND-STILLWELLAV-SEA-D/F/N/Q
858399	FLG: 058 - Coney Island-Stillwell Av -	ST-FLDLG	DOS-SEO-MNT	BROOKLYN	058-CONEYISLAND-STILLWELLAV-SEA-D/F/N/Q

System	Description	Class	Responsible Division	Borough	In/Nearest Station
	Water Meter Rm Street Level Internal Prot				
858400	FLG: 058 - Coney Island-Stillwell Av - Reserve EDR Street Level Internal Prot	ST-FLDLG	DOS-SEO-MNT	BROOKLYN	058-CONEYISLAND-STILLWELLAV-SEA-D/F/N/Q
858402	FLG: 058 - Coney Island-Stillwell Av - Normal EDR Street Level Internal Prot	ST-FLDLG	DOS-SEO-MNT	BROOKLYN	058-CONEYISLAND-STILLWELLAV-SEA-D/F/N/Q
858405	FLG: 058 - Coney Island-Stillwell Av - Comm Rm Street Level Internal Prot	ST-FLDLG	DOS-SEO-MNT	BROOKLYN	058-CONEYISLAND-STILLWELLAV-SEA-D/F/N/Q
859733	WPT: 2077 - Cranberry Tube - Weir Plate Track Level Internal Prot	IN-WEIPL	DOS-MOW-INF-HYD	BROOKLYN	173-HIGHST-8AV-A/C
859734	WPT: 2080 - Cranberry Tube - Weir Plate Track Level Internal Prot	IN-WEIPL	DOS-MOW-INF-HYD	BROOKLYN	173-HIGHST-8AV-A/C
859735	WPT: 2116 - Rutgers Tube - Weir Plate Track Level Internal Prot	IN-WEIPL	DOS-MOW-INF-HYD	MANHATTAN	234-EASTBROADWAY-6AV-F
859736	WPT: 2119 - Rutgers Tube - Weir Plate Track Level Internal Prot	IN-WEIPL	DOS-MOW-INF-HYD	MANHATTAN	234-EASTBROADWAY-6AV-F
859737	WPT: 2150 - 53 St Tube - Weir Plate Track Level Internal Prot	IN-WEIPL	DOS-MOW-INF-HYD	QUEENS	274-COURTSQ-23ST-QBL-E/M
859738	WPT: 2152 - 53 St Tube - Weir Plate Track Level Internal Prot	IN-WEIPL	DOS-MOW-INF-HYD	QUEENS	274-COURTSQ-23ST-QBL-E/M
859739	WPT: 3165 - Clark St Tube - Weir Plate Track Level Internal Prot	IN-WEIPL	DOS-MOW-INF-HYD	BROOKLYN	334-CLARKST-CLK-2/3
859740	WPT: 3167 - Clark St Tube - Weir Plate Track Level Internal Prot	IN-WEIPL	DOS-MOW-INF-HYD	BROOKLYN	334-CLARKST-CLK-2/3
859741	WPT: 3168 - Clark St Tube - Weir Plate Track Level Internal Prot	IN-WEIPL	DOS-MOW-INF-HYD	BROOKLYN	334-CLARKST-CLK-2/3
859742	WPT: 3228 - Steinway Tube - Weir Plate Track Level Internal Prot	IN-WEIPL	DOS-MOW-INF-HYD	QUEENS	464-VERNONBLVD-JACKSONAV-FLS-7
859743	WPT: 3229 - Steinway Tube - Weir Plate Track Level Internal Prot	IN-WEIPL	DOS-MOW-INF-HYD	QUEENS	464-VERNONBLVD-JACKSONAV-FLS-7
859749	FLG: 168 - Spring St - Tunnel Sealing Track Level 95+00 Internal Prot	IN-FLDLG	DOS-MOW-INF-HYD	MANHATTAN	168-SPRINGST-8AV-C/E
859747	FLG: 330 - South Ferry - Tunnel Sealing Track Level 204+55 Internal Prot	IN-FLDLG	DOS-MOW-INF-HYD	MANHATTAN	330-SOUTHFERRY-7AV-1

System	Description	Class	Responsible Division	Borough	In/Nearest Station
859748	FLG: 330 - South Ferry - Tunnel Sealing Track Level 76+32 Internal Prot	IN-FLDLG	DOS-MOW-INF-HYD	MANHATTAN	330-SOUTHFERRY-7AV-1
513089	FLG: 220 - 155 St Station (IND CON) - Stairway S1	ST-FLDLG	DOS-SEO-MNT	MANHATTAN	IND-C-SUB-1332+01TO1667+51
513069	FLX: 287 - Flushing Av Station (IND XTN) - Stairway S1	ST-FLXGT	DOS-SEO-MNT	BROOKLYN	287-FLUSHINGAV-XTN-G
513059	FLX: 287 - Flushing Av Station (IND XTN) - Stairway S2	ST-FLXGT	DOS-SEO-MNT	BROOKLYN	287-FLUSHINGAV-XTN-G
944106	148 St Yard	ST-FLDLG	DOS-SEO-MNT	MANHATTAN	436-HARLEM-148ST-LWP-3
944327	Coney Island Yard	ST-FLDLG	DOS-SEO-MNT	BROOKLYN	070 - Bay 50 St – D
872727	FLG: St. George Terminal	IN-FLDLG	SI-MNT-INF	STATEN ISLAND	501 – St. George

Table 6-54

6.2.8B DOS SSME Assets Requiring Inspection

The following table describes the inspection/preventative maintenance schedule and responsible parties for the SSME Assets whose purchase price is greater than $5,000 and has a lifecycle of greater than a year.

Maintenance of Way Maintenance Schedule

INSPECTION/PREVENTATITVE MAINTENANCE OF SSME ASSETS / EQUIPMENT Maintenance of Way (MOW) D. Gallo, A. Crespo						
EQUIP. TYPE	**Fixed or Deployable**	**RESPONSIBLE SUB-DIVISION(s)**	**Quantity**	**FREQUENCY**	**PROCEDURE**	**RECORD-KEEPING**
Watertight Marine Doors (for Station Entrances)	Fixed	**Mow Infrastructure (Iron)**	6	Annual	Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	*Inspection findings are entered into the EAM Work Order*
		Mow Infrastructure (Hydraulics)	69	Annual	Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	*Inspection findings are entered into the EAM Work Order*
Flood Panel	Deployable (Stored On-Site)	**Mow Infrastructure (Hydraulics)**	5	Annual	Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	*Inspection findings are entered into the EAM Work Order*
Flood Logs	Deployable (Stored On-Site)	**Mow Infrastructure (Hydraulics)**	18	Annual	Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	*Inspection findings are entered into the EAM Work Order*
Watertight Hatches	Fixed	**Mow Infrastructure (Iron)**	65	Annual	Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	*Inspection findings are entered into the EAM Work Order*
		Mow Infrastructure (Hydraulics)	52	Annual	Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	*Inspection findings are entered into the EAM Work Order*

INSPECTION/PREVENTATITVE MAINTENANCE OF SSME ASSETS / EQUIPMENT Maintenance of Way (MOW) D. Gallo, A. Crespo						
Mechanical Closure Devices (MCDs) for Vents	Fixed	**Mow Infrastructure (VOS)**	1312	Annual	Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	*Inspection findings are entered into the EAM Work Order*
EQUIP. TYPE	**Fixed or Deployable**	**RESPONSIBLE SUB-DIVISION(s)**	**Quantity**	**FREQUENCY**	**PROCEDURE**	**RECORD-KEEPING**
Deployable Vent Cover Crates	Deployable (Stored Off-Site)	**Mow Infrastructure (CCS)**	• # of Crates: 47 • Total: 1794	Annual	Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis. *Note: individual vent covers are not inspected because they have a value below $5K. Rather, we carry a surplus and replace defective covers as needed. In turn, inspections are of the crates of covers that are stored to ensure there's no visible damage to the stored crates. In addition, when performing a deployment, a visual inspection is conducted and no device with visual damage will be used during an event.*	*Inspection findings are entered into the EAM Work Order*
Louver Panel	Fixed	**Mow Infrastructure (Hydraulics)**	1	Annual	Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	*Inspection findings are entered into the EAM Work Order*

Table 6-55

Staten Island Railway Maintenance Schedule

INSPECTION/PREVENTATITVE MAINTENANCE OF SSME ASSETS / EQUIPMENT Staten Island Railway (SIRTOA) K. Coughlin, D. Zurita, L. Acosta						
EQUIP. TYPE	**Fixed or Deployable**	**RESPONSIBLE SUB-DIVISION(s)**	**Quantity**	**FREQUENCY**	**PROCEDURE**	**RECORD-KEEPING**
Flood Gates/Logs (Clifton)	Deployable (Stored on Site)	**Staten Island Railway – Maintenance**	15	6-month rotational inspections within asset class	Flood Gate/Log PM & Inspection Form	*Inspection findings are entered into the EAM Work Order*
Swing/Slide Gates (St George)	Deployable (Stored in Place)	**Staten Island Railway – Maintenance**	4	6-month rotational inspections within asset class	Flood Gate/Log PM & Inspection Form	*Inspection findings are entered into the EAM Work Order*
Flood Log Barriers	Deployable (Stored On Site)	**Staten Island Railway – Maintenance**	3	6-month rotational inspections within asset class	Flood Gate/Log PM & Inspection Form	*Inspection findings are entered into the EAM Work Order*

Table 6-56

Stations Maintenance Schedule

INSPECTION/PREVENTATITVE MAINTENANCE OF SSME ASSETS / EQUIPMENT Facilities (Stations) D. Soliman, L. Lanfair, V. Bove						
EQUIP. TYPE	**Fixed or Deployable**	**RESPONSIBLE SUB-DIVISION(s)**	**Quantity**	**FREQUENCY**	**PROCEDURE**	**RECORD-KEEPING**
Flex Gates (for Station Entrances)	Fixed	**Facilities (Stations Maintenance)**	72	Annual	3rd Party Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	Inspection findings are entered into the EAM Work Order
Flex Gates (for Yards)	Fixed	**Facilities (Facility Operations)**	3	Annual	3rd Party Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	Inspection findings are entered into the EAM Work Order
Watertight Marine Doors (for Station Entrances)	Deployable (Stored On-Site)	**Facilities (Stations Maintenance)**	41	Annual	3rd Party Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	Inspection findings are entered into the EAM Work Order
		Facilities (Facility Operations)	1	Annual	3rd Party Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	Inspection findings are entered into the EAM Work Order
Watertight Marine Doors (For Yards)	Fixed	**Facilities (Facility Operations)**	5	Annual	3rd Party Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	*Inspection findings are entered into the EAM Work Order*
Flood Logs (Stop Logs)	Deployable (Stored On-Site)	**Facilities (Stations Maintenance)**	36	Annual	3rd Party Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	Inspection findings are entered into the EAM Work Order
	Deployable (Stored On-Site)	**Facilities (Facility Operations)**	1	Semi-Annual	3rd Party Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	Inspection findings are entered into the EAM Work Order
EQUIP. TYPE	**Fixed or Deployable**	**RESPONSIBLE SUB-DIVISION(s)**	**Quantity**	**FREQUENCY**	**PROCEDURE**	**RECORD-KEEPING**
Inflatable Gasket Marine Door	Fixed	**Facilities (Stations Maintenance)**	4	Annual (in EAM included under Marine Door).	3rd Party Inspection based on manufacturers guidelines. Routine maintenance done onsite,	Inspection findings are entered into the

INSPECTION/PREVENTATITVE MAINTENANCE OF SSME ASSETS / EQUIPMENT Facilities (Stations) D. Soliman, L. Lanfair, V. Bove						
	(Stored In-Place)				major repairs to be done on a as needed basis.	EAM Work Order
Pedestrian Flood Door	Fixed (Stored In-Place)	**Facilities (Stations Maintenance)**	61	Annual	3rd Party Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	Inspection findings are entered into the EAM Work Order
Flood Panel	Deployable (Stored On-Site)	**Facilities (Stations Maintenance)**	26	Annual	3rd Party Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	Inspection findings are entered into the EAM Work Order
Watertight Hatches	Fixed (Stored In-Place)	**Facilities (Stations Maintenance)**	15	Annual	3rd Party Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	Inspection findings are entered into the EAM Work Order
Mechanical Closure Devices (MCDs) for Vents	Fixed (Stored In-Place)	**Facilities (Stations Maintenance)**	889	Listed under Facilities until Pick is completed. Devices will move to MOW.	Inspection based on manufacturers guidelines. Routine maintenance done onsite, major repairs to be done on a as needed basis.	Inspection findings are entered into the EAM Work Order

Table 6-57

6.2.8C Maintenance Guidelines for SSME Assets

The information provided below describes the maintenance guidelines for the SSME Assets located in the manuals associated with each asset. This includes all assets with maintenance requirements, not just those identified in the schedule above. The full manuals can be found linked to the asset record in EAM.

Deployable Vent Covers

Individual vent covers are not inspected because they have a value below $5K. Rather, we carry a surplus and replace defective covers as needed. In turn, inspections are of the crates of covers that are stored to ensure there's no visible damage to the stored crates.

Drain Plug - Walz & Krenzer, Inc. Removable Drain Plug

- General Maintenance
  - The removable floor drain plug requires very little maintenance. It is recommended that the drain plug logs be installed at least once a year to ensure that they are in the proper state of readiness.
  - The cover should be stored in a location that will prevent damage to it and its gasket. The life of the gasket will be greatly extended by keeping it out of direct sunlight, where possible.
- Gasket and Sealing Surface of Frame
  - The gaskets should be checked every 6 months for cracking, tears or other damage. Small breaks may be fixed with cycanocrylate adhesive (super glue). More serious damage may require replacement of the gasket.

Flex-Gate - INPRO-71045 Stairwell Flex-Gate

Overview

Maintenance on the Stairwell Flex-Gate™ system is minimal and straight forward. In the stowed configuration the fabric cover and all mechanical components are protected from the weather and tampering. If not deployed for a flood event, the recommendation is that once a year the system is exercised by performing a closing and opening cycle, and performing an inspection on critical areas. If the system was deployed and endured a flood event, an inspection and cycling of the closing and opening operations is required. If the desire is to open the transit system as quickly as possible, the inspection and cover drying steps can be postponed and performed at a later time.

The following sections describe the maintenance for a nominal yearly check-out and for a post-flood check-out. Any standard components that could potentially need replacement can be found in the Appendix A parts List of the Operation Maintenance Manual. These items can be ordered by using the contact information at the end of this manual. If there is damage to parts of the Flex-Gate™ that are not in the Appendix A list, use the contact information to have the damage assessed by ILC Dover personnel.

Periodic Maintenance

The following instructions are for performing a 'routine' maintenance on the Stairwell Flex-Gate™. This maintenance should be performed at least once a year to ensure the Flex-Gate™ is ready for a quick and problem free closure in the event of a potential flood condition. The assumption is that the Flex-Gate™ is in the configuration described at the end of the opening instructions of section 4.2 in the Operation Maintenance Manual.

- Perform an inspection on the external surfaces of the Flex-Gate™ system.
  - Significant dents or piercing of the storage box or gate guide covers should be evaluated to determine if repair is required.
  - Check along the sealing interfaces between the storage hatch and the retraction hatch closures. These interfaces should not have gaps. The doors should not be loose.
  - Check along the sealing interfaces between the frame and the gate guide covers. These interfaces should not have gaps. The covers should not be loose.
  - Check any attachment interfaces on the storage box. The mating joints should not be loose or have gaps that would allow debris to get into the storage box.
- Close the Flex-Gate™ cover following the instructions in section 4.1 in the Operation Maintenance Manual and perform the following inspections during and after the closure:
  - The tools required and the stairwell closed sign should be stowed within the system and be in good condition.
  - The gate guides should not have any debris in them, or exposed sharp edges and the protective covers should swing completely down (sides) and be able to lock open (deployment hatch at header).
  - The fabric cover should have deployed without hanging up, or only minor jamming that was easily resolved by hand adjustment of the fabric cover as it was closing.
  - The cover end bar should be seated under the clamp bar and the clamp bar hardware secured and tightened without cross-threading of the hardware.
  - The edges of the cover should be completely inside the gate guide.
  - The cover material should not have any holes or tears.
  - Check the underside of the cover for damage. Inspect the waterproof cover material, webbings and frame-to cover interface.
  - Verify that all screws and inserts are not cross-threaded and operate smoothly. If any screws do not insert smoothly, add more anti-seize to screws or use corresponding tap and re-tap holes. Replace any damaged stainless steel screws.
- Open the Flex-Gate™ cover following the instructions in section 4.2 in the Operation Maintenance Manual and perform the following inspections during and/or after the opening:
  - The cover should retract without binding, or only have minor jamming that was easily resolved by hand adjustment of the fabric cover as it was retracting.
  - The cover end bar should be completely retracted inside the deployment hatch.

- The dam plungers should be inspected for degradation. The recommendation is to replace the plungers every 5 years or sooner if there are signs of damage or deteriorating material.
- Complete the opening instructions and leave the Flex-Gate™ in the nominal open configuration.

Repeat the closing and opening as required to ensure proper operation or fully understand what is causing a problem. If a problem component is found, replace the field replaceable item using only the components and sources identified in the parts list in Appendix A in the Operation Maintenance Manual. If the system does not properly operate or a more extensive repair is required, use the contact information in section 7 of the Operation Maintenance Manual to have ILC Dover personnel repair the system using acceptable parts.

The storage box should also be inspected for noticeable powder coating damage. If a repair is required, use the following procedure to touch up.

- Powder Coating Touch-Up Procedure
  - Using a silicon sheet, cut to the size of the repair area.
  - Apply Powdered PLASCOAT to area and press/smooth into scratch/gouge using silicon sheet.
  - Heat area with heat gun to soften powder.
  - Roll with LEISTER 28MM PTFE Pressure Roller # 106.976.
  - Allow to cool completely.

Post Flood Maintenance

The following instructions are for performing maintenance on the Stairwell Flex-Gate™ after it has been deployed and exposed to a flood event. This operation should be performed as soon as possible after a flood event. The assumption is that the Flex-Gate™ is in the configuration it is left in at the end of the closing instructions.

- Perform an inspection on the external surfaces of the Flex-Gate™ system.
  - Significant dents or piercing of the storage box or gate guide covers should be evaluated for needed repair.
  - Drain any water that is on the cover. Remove any debris or significant accumulations of dirt.
  - Carefully check the interface between the cover and the frame gate guide and clear any small, trapped debris that may have become lodged in during the flooding. Debris in this area may jam the retraction operation and/or damage the cover.
  - Check frame interface to grout and concrete for continuity.
  - Check the underside of the cover for damage. Inspect the waterproof cover material, webbings and frame to cover interface.

        - Check any attachment interfaces that are on the storage box. The mating joints should not be loose or have gaps that would allow debris to get into the storage box.
    - Open the Flex-Gate™ cover following the instructions in section 4.2 and perform the following inspections during and/or after the opening:
        - The cover should have retracted without any hanging up, or only have minor jamming that was easily resolved by hand adjustment of the fabric cover as it was retracting.
        - Check the outside surface of the cover. Ensure there are no rips, abraded areas or punctures.
        - The cover end bar should be completely retracted inside the deployment hatch.
        - Inspect the frame gate guide covers for damage.
        - Complete the opening instructions and leave the Flex-Gate™ in the nominal open configuration.
        - Check along the sealing interfaces between the storage hatch and retraction hatch. These interfaces should not have gaps. The doors should not be loose.
        - Check along the sealing interfaces between the gate guide covers and the gate guides. These interfaces should not have significant gaps.
    - If a problem component is found, replace the field replaceable item using only the components and sources identified in the parts list in Appendix A. If a more extensive repair is required, use the contact information in section 7 of the Operation Maintenance Manual to have ILC Dover personnel repair the system using acceptable parts.
    - Further cycling of the cover may be desired to ensure proper operation. Additional closing and opening of the Flex-Gate™ can be performed use the steps in sections 4.1 and 4.2 of the Operation Maintenance Manual.

Flood Gate

Walz & Krenzer, Inc. Sliding Flood Gate

The floodgate requires very little maintenance. The lip seal gasket should be checked every 6 months for cracking, tears or other damage. The corners in particular should be checked for separation. Small breaks may be fixed with cyanocrylate adhesive (super glue). More serious damage may require replacement of the gasket.

The trolley rollers and ratchet jacks are mechanical items that should be checked to ensure smooth operation. If they are compromised by corrosion or other damage, they should be replaced.

It is recommended that the flood gate be closed and hose tested at least once a year to ensure is in the proper state of readiness.

Walz & Krenzer, Inc. Hinged Flood Gate

- The gaskets should be inspected twice a year for wear and damage.
- The following items should be checked and greased if needed:

  - The acme thread of the handwheel shaft should be coated with grease for easy operation.
  - The lipseal gasket corners can have their sealing edges coated with Vaseline or similar jelly prior to the door closing. This lubrication can help ensure that the gasket will seat properly with the frame corner.
  - Hinges should be greased via the grease fitting located on the hinge blade. General purpose grease is acceptable.
- If the lipseal gasket needs to be replaced, the panel will need to be jacked up to gain access to the bottom gasket. The hinges are designed to allow several inches of movement. The panel will need to be swung open by 45 degrees or more to allow clearance at the upper rim when the panel is lifted. See sketch below for the location of the jack at the bottom hinge.
- Lubricate hinge points periodically (at least once a month).
- Gaskets and bearings are the parts most likely to wear over time and require replacement.
- A hose test should be performed **at least once a year** to verify the gate's watertight integrity. This, along with the greasing, should be considered the preventative maintenance that should be recorded yearly in the front of this manual.

Flood Log

Presray Flood Barrier- Clifton Shop

Periodically inspect the blood barrier assembly, particularly the gaskets, for signs of excessive wear or damage. The frame sill sealing area should be kept clean and smooth. Small scratches, nicks, and gouges should be ground or filed smooth. Always grind and file in the longitudinal direction. Grinding or filing across the lay of the gasket could create a leak path. If the damage is severe, fill such areas and then grind or file smooth to obtain the original surface profile.

Note: Even slight damage to the gasket may hinder its ability to provide leak tight protection. Field repairs or patching are not recommended. Such repairs may not hold up during a high water condition. If there is any doubt as to the severity of damage to the gasket, contact Presray. P.0. Box 200, Wassaic, NY (845) 373-6700 Fax: (845) 855-8034 E-Mail: service@presray.com

Presray FL-HD Flood Barrier System- FASTLOG Aluminum Flood Logs

Presray Corporation recommends that your flood barriers be operated every three (3) months and prior to an anticipated flood. This will allow time for any minor problems to be corrected and will ensure reliable flood protection. Contact Presray if you have any questions. Periodically inspect the flood barrier assembly and immediately prior to every deployment, particularly the gaskets, for signs of excessive wear or damage. The frame sill sealing area should be kept clean and smooth. Small scratches, nicks, and gouges should be ground or filed smooth. Always grind and file in the longitudinal direction. Grinding or filing across the lay of the gasket could create a leak path. If the damage is severe, fill such areas and then grind or file smooth to obtain the original surface profile.

NOTE: Even slight damage to the gasket may hinder its ability to provide adequate leak protection. Field repairs or patching are not recommended. Such repairs may not hold up during a high water condition. If there is any doubt as to the severity of damage to the gasket, contact Presray.

IMPORTANT-At each deployment/ installation apply EckR-Q corrosion protection coating or approved equivalent to all metallic hardware (per DWG note 11 or 12) per manufacturer's instructions. For direction on how to apply the coating please see "Eck® Corrosion Prevention Coating - Application Instructions."

Walz & Krenzer, Inc. Stop Log Flood Barriers

The logs should be stored in a dry cool place away from direct sunlight and weather. He shrouds will protect the gaskets at the frame.

Each opening will have 1 bottom log assembly and a specific number of intermediate log assemblies.

The system requires very little maintenance. The gaskets should be checked every 6 months for cracking, tears or other damage. Small breaks may be fixed with cyanocrylate adhesive (super glue). More serious damage may require replacement of the gasket. It is recommended that the logs be deployed at least once a year to ensure that they are in the proper state of readiness.

SAK Enterprises, Stackable Flood Barrier

- Periodically inspect the STE-100 system and all parts for signs of wear or abuse.
- DO NOT coat the seals with any product such as a silicone spray or any solvents as damage will occur.
- DO NOT paint the seals.
- If seals are damaged, contact SAK Enterprises, Inc. customer service by phone, (941) 981-3669, or email info@sakenterprise.com for ordering replacement seals.
- DO NOT store the STE-100 Stackable Extrusions in a matter that will compress or pinch the seals. They can be stored on the side or the bottom STE-100 Stackable Extrusion can be stored upside down and the remaining STE-100 Stackable Extrusions can be stored with the top seals up.
- Storing the STE-100 Stackable Extrusions in direct sunlight will shorten the life of the seals. Storage in a building, closet or storage building is recommended.
- Periodically inspect Jamb frames for damage. Damaged parts can be replaced by contacting SAK Enterprises, Inc. customer service, (941) 981-3669.
- DO NOT use the STE-100 Stackable system for any other use than it was designed for.

Flood Panel

Walz & Frenzer, Inc. Removable Lip Seal Flood Barriers

The floodgates require very little maintenance. The lip seal gaskets should be checked every 6 months for cracking, tears or other damage. The corners in particular should be checked for separation. Small breaks may be fixed with cyanocrylate adhesive (super glue). More serious damage may require replacement of the gasket. It is recommended that the panels be installed at least once a year to ensure that they are in the proper state of readiness

Flood Break Louvered Vent Panel

MAINTENANCE PROCEDURES:

- TO BE PERFORMED - Periodically

IMPORTANT NOTICE: Please refer to MANUAL DEPLOYMENT OF THE FAN PLANT 5104 FLOODBREAK VSL SYSTEM before performing any maintenance tasks to ensure proper and safe operation.

After an actual flood event perform these tasks to ensure proper seating of the gate panel in the assembly.

- Check gate panel & shell for visible damage.
- Check all gasket flange bolts for proper tightening.
- Clean assembly of all debris and keep the area clean throughout the gate travel path.
- If the panels are not returning the horizontal at rest position, it may be necessary to clean the pans from the wet side of the VSL unit. To do so,
    - Make certain that the louvers are secured and will not fall on the operator while cleaning. Making use of the locking pin on the manual deployment actuator is advised as well as additional prevention such as wooden blocks placed to prevent complete and sudden closure of the louver panels once freed.
    - Obtain access to the wet side of the VSL units. Outside of the building.
    - Remove the screws holding the screen mesh retaining bars in place around the affected compartment(s)
    - Place the screen(s), screws, and retaining bars out of the way for safe working space.
    - Clean out any collected debris from inside of each affected compartment and underside of louver panel(s). Ensure the area between the gasket edges and compartment walls are very clean.
    - Remove the locking pin(s) if installed as well as any additional items placed for temporary securing of the VSL louver(s)
    - Test the rotation of the VSL louver(s) assuring that each will return to a completely open or horizontal position allowing for maximum air flow and flood readiness.
    - Reinstall the screen(s), retaining bars and screws. Replace any damaged hardware.
- Inspect hinges to ensure proper alignment & ensure they are butted securely to the hinge mounting angle.
- Check flexibility and integrity of gasket.
- Check VSL perimeter grouting and sealing on the wet side or outside of the building. Repair as needed.
- Cleaning the unit of any remaining debris with a high-pressure hose or wet/dry vacuum is acceptable if the unit is accessible.

Should the inspection result in findings of visible damage, problems in the full motion of the unit, or if replacement gaskets or parts are needed; parts and services are available from FloodBreak through your local representative or sending an email to info@floodbreak.com Locate the FloodBreak I.D. tag, which is attached to an interior wall of the VSL (typically the second compartment up from the bottom) and write down the serial number. This information is needed to determine the proper gasket dimensions for the unit.

Replacement:

• Panels, hinges & unit shell are designed for decades of service life

• Gaskets (seals) are designed for a minimum ten-year service life. It is possible, however, for the seals to be damaged due to flooding events or misuse, therefore periodic inspection is recommended. The seals are designed for easy replacement in the case of damage.

• Note: Contact FloodBreak for replacement gasket and replacement kit.

• Call 713-980-6610 or email us at info@floodbreak.com.

• Please reference the Serial ID # located on the affected VSL unit.

Manhole Insert - The Rainstopper

Neoprene gaskets - The design life of our neoprene gasket is 50 years, but gaskets can be subject to damaged due to situations out of manufacturer's control. Upon notification of gasket damage, manufacturer will furnish replacement gasket material at no cost to the customer, regardless of cause of damage. Long term exposure to UV rays will deteriorate gasket, so care should be taken to protect units.

If, after installation, a substantial reduction in flow is not achieved, a severe problem with inflow (other than through the manhole lids) and infiltration can be assumed and should be addressed immediately.

Marine Door - Presray D3DQA Watertight Door

GENERAL MAINTENANCE

It is recommended that an annual inspection be made of all parts. They should be visually checked for cracks or corrosion. Any cracks must be repaired and all corrosion should be removed and the affected area repainted. The combing edge should be kept clean and smooth. Small scratches, nicks and gouges should ground or filled smooth. Always grind or file in the longitudinal direction Grinding or filling across the lay of the gasket could create a leak path. If damage is severe, fill such areas and then grind or file them smooth to obtain the original surface profile and finish of 63.

GASKET MAINTENANCE

The gasket should be inspected for damage and other signs of wear or abuse. Damaged gaskets should be replaced. Note: Even slight damage to the gasket may void its ability to provide leak tight protection. If the user has any doubt as to the severity of the damage to the gasket, contact Presray.

Regardless of the condition, at five-year (5) year intervals the gasket should be replaced along with the seal in the hand lever assembly. Contact Presray for replacement gaskets. To replace the gasket refer to the applicable Presray drawing (in manual O&M Quick Acting Marine Door.pdf) and the following steps:

- Remove the old gasket by cutting into it and working a putty knife between the gasket base and the retainer.
- Clean all traces of the gasket material and old adhesive from the retainer channel.
- Use RTV silicone (Momentive Industries Series 108 or other equivalent). Apply adhesive to the base of the gasket and retainer channel per manufacturer's instructions.
- Install the new gasket starting at the corners and working towards the centers of each side. Remove any excess adhesive and perform a thorough visual inspection.

“O” RING REPLACEMENT

For replacement of the shaft "O" ring, refer to the applicable Presray drawing (in manual O&M Quick Acting Marine Door.pdf) and the following sequence of diagrams:

Walz & Krenzer, Inc. Inflatable Gasket Watertight Door

The floodgates require very little maintenance. It is recommended that the panels be installed at least every three months to check for damage.

- Gasket and Sealing Surface of Frame
    - Leave each gasket inflated for 30 minutes and check that air pressure does not drop over time.

PS Flood Barriers Pedestrian Flood Door

Inspection and Maintenance (Minimum Annually)

- Panel, Frame, and Embedded items:

    - Inspect items for damage and misalignment. Adjust, repair, or replace as needed, to meet original design tolerances.
    - Check all connections, making sure they meet original design standards (refer to Approved for Construction Drawings and Anchor Specifications).
- Fasteners and mechanical connections:
    - All fasteners must be in place and adjusted to their original design standards. Replace any damaged components (refer to Approved for Construction Drawings and Anchor Specifications).
- Sealants and Waterstops:
    - Inspect all sealants used on frame and connections to insure their effectiveness.
    - Replace any cracked, loose, or otherwise non-performing sealants.
- Use only factory approved/supplied products.
    - Factory approved sealant/waterstops: Sika; Sikaflex-227, Quellpaste Typ E
- Gasketing:
    - Inspect all gaskets for damage, continuous adhesion to the attached surface, and proper positioning and compression.
    - Visually inspect all gaskets for proper positioning and compression.
    - Replace or repair if damage or deterioration to gaskets has occurred.
    - Use only factory approved materials (refer to Approved for Construction Drawings)
    - CRITICAL Gaskets are a critical component of the Flood Barrier protective performance and must meet minimum compression tolerances in the latched position.
- Latching:
    - Operate all latching hardware to ensure smooth, uninhibited movement of all mechanical components.
    - Place flood barrier and check latches for proper engagement. If gaskets are not properly positioned and properly compressed, unlatch barrier panel and adjust latching accordingly.
- Finishes:
    - Inspect and clean finishes annually.
    - Touch-up repair finishes, or refinish as necessary to protect the structural integrity of the Flood Barrier.
- Labels and Placards:
    - Inspect all labels and placards.
    - Replace any labels and placards which are unreadable/missing.
- Housekeeping:
    - Clean sill and jambs of any debris and keep the area clean throughout flood barrier opening.
    -

Walz & Krenzer Sliding Flush Still Watertight Doors

The watertight doors require very little maintenance. They should be visually inspected twice a year or as required to determine the condition of the gasket, contacting edge (knife edge) of the frame, and the operating mechanism (dogs).

Gasket and Contacting Edge (Knife Edge) of Frame: The gasket should be clean and pliable. Check gasket for cracking and checking. Replace when required (see “Repair & Replacement” below). The contacting edge (knife edge) of the door frame should be

smooth and clean. Rough edges will cause wear of the gasket, and unevenness of the edge and deterioration of the gasket may affect the water tightness of the door.

Operating Mechanism: Operate the door to check for smoothness of the dogging mechanisms and effective dogging action. Check the compression of the gasket by the standard chalk test described above.

Vent Shaft System

Flood Break Vent Shaft System
Maintenance Procedures:
TO BE PERFORMED PERIODICALLY (Annually at a minimum.)

- *Secure area for inspection using established MTA safety procedures.*
    - Inspect unit from street level to ensure no visible evidence of damage or tampering.
    - Remove grating from Maintenance unit (FB-VSC-M) following established MTA procedures.
- Removal of Panel Assembly (Sequence shown in photos below)
    - This step requires two MTA operators.
    - Set up a maintenance stand in a safe level location close to vent bay. The lift stand should be level and secured from rolling. The stand is adjustable to accommodate any length MCD.
    - Rotate the two lifting handles located on top of the main support 90 degrees into an upright position.
    - Lift out of vent bay by using the handles or insert an approved MTA lifting bar through the upright lifting handles on the gate assembly. With an operator on each side, use the lifting bar to slide the assembly up and out of the vent bay.
    - When removed, place the assembly on the properly secured maintenance stand.
    - Secure the lift-assist arm by depressing it and sliding the lock into place. Panel assembly is now ready to be reinserted into MCD shell once maintenance work is completed.
- Replacing panel assembly

Note: Before replacing the panel assembly, be sure that the lift-assist arms are locked in the correct position. Depress the lift-assist arm and slide the lock into place. Panel assembly is now ready to be reinserted into MCD.

- This step requires two MTA operators.
    - Rotate the two lifting handles located on top of the main support 90 degrees into an upright position.
    - Lift MCD off the stand, by using the handles or inserting an approved MTA lifting bar through the upright lifting handles on the gate assembly. With an operator on each side, lift the assembly from the stand and carry to the vent bay.
    - Align notched end of the assembly with the corresponding guide on the MCD shell wall. The assembly can only go in one way.
    - Slide the assembly into place. It should slide freely and self-align. No locking is required.
    - Reach down and release the lift-assist arm lock. Repeat step on 2nd panel. Unit is ready for deployment.
    - Return lifting handles to the original rest position

- Replace gratings per established MTA procedures.

Inspection of MCD Units

- Inspection in Vent Bay

  If inspecting the FloodBreak VSC-M units in a battery from below without removing all the operating units from the bays, then lower an MTA-approved ladder into an open bay per established MTA procedures and inspect device from below.
  - Clean sill and jambs of all debris and keep the area clean throughout the gate travel path.
  - Inspect hinges to ensure proper alignment.
  - Check flexibility and integrity of gasket.
  - Check all gasket flange bolts for proper tightening.
  - Check drain & perimeter grouting.
  - Inspect and clean finishes periodically.
- Inspection of Assembly while in MCD Stand

If inspecting the operating unit while on the maintenance stand, follow the above procedures except for the ladder step. Replace removed panel assembly to vent bay (See Replacing Panel Assembly).

Reporting Damage
Should the inspection result in findings of visible damage, problems in the full motion of the unit, or if replacement gaskets or parts are needed; parts and services are available from FloodBreak through your local representative or sending an email to info@floodbreak.com.

Locate the FloodBreak I.D. tag, which is found on the gate panel, and write down the serial number. This information is needed to determine the proper gasket dimensions for the unit.

Watertight Hatch

Bilco Doors

- Bilco Type FT-AL and FTD-AL Flood Tight Hatch

This unit is supplied in mill finish aluminum. No finish painting is required. Clear any dirt and debris from the frame area which would prevent the door from seating on the frame when closed. The channel frame and flood tight gasket must be regularly cleaned and cleared of all dirt and debris. Occasional oiling of the hinges, lock and rear portion of lower tubular spring housings will assure smooth, trouble-free operation.

- Bilco Type J H20 (Stainless Steel-Type 316) Access Door with Cage

The channel frame, drain coupling and drip channel must be kept clear of dirt and debris at all times to maintain proper water drainage. Occasional oiling of the hinges will assure smooth, trouble-free operation.

- Information for Handling Failed Components for all Bilco Products

  - Identify the failed component
  - Call Bilco Replacement Parts Department and inform them of failed component. 203-934-6363

- CAUTION: If any of the lifting mechanisms or hold open arms fail, please be careful of falling cover. Keep all hands and feet away from the edges of the opening.

Walz & Krenzer, Inc. Emergency Egress Hatches

- Maintenance of the Emergency Egress Hatches

The watertight hatches require very little maintenance. They should be visually inspected once a year or as required to determine the condition of the gasket, the sealing surface of the frame and the operating mechanism.

- GASKET AND SEALING SURFACE OF FRAME

The gasket should be clean and pliable. Check gasket for cracking and checking. Replace when required (see Section 6.0 below). The sealing surface of the hatch frame should be smooth and clean. Dirt and debris that may have fallen through the gap between panel and frame should be cleaned. A rough or dirty sealing surface will cause wear of the gasket and may affect the water tightness of the hatch.

- OPERATING MECHANISM

Operate the hatch to check for smoothness of the panic bar and effective latching action. Check the compression of the gasket by the standard chalk test per Section 3.0 described above. If the panic bar or lock assembly does not operate freely, see Section 6.0 below.

- DRAINS

Drain should be cleared on an as needed basis to prevent standing water from collecting in the frame trough. This is particularly important in the winter when ice formation can inhibit the operation of the hatch. It is recommended that ball valve drain be closed during hurricane season for watertightness and opened during winter for drainage.

- ICE

If the drains are operational, there should not be significant water to form ice in the trough between the panel and frame. However, if ice is a problem, WK recommends that the frame sealing surface be wiped clean and coated with a light coating of 30 weight motor oil. This will disrupt ice adhesion to the sealing surface.

6.2.8D DOS SSME Asset Spare Part Inventory Process

A review of the Asset manuals identified spare parts for the following Storm Surge Mitigation Equipment. Below are those assets which have a spare part list:

Asset Type	Asset Name
Flex-Gate	INPRO-71045 Stairwell Flex-Gate
FloodGate	Walz & Krenzer, Inc. Sliding FloodGate
FloodGate	Walz & Krenzer, Inc. Hinged FloodGate
Flood Log	Presray Flood Barrier
Flood Log	SAK Flood Barrier
Marine Door	Walz & Krenzer Inflatable Gasket Marine Door
Marine Door	Walz & Krenzer Watertight Stairway Cap

Marine Door	Presray Watertight Door
Manhole Insert	Watertight Manhole Inserts
Watertight Hatch	Watertight Hatch
Watertight Hatch	Emergency Egress Hatch
Louver Panel	FloodBreak VSL
Vent Bay-MCD	FloodBreak MCD

An inventory of the required spare parts can be found on the MTA Emergency Management and Preparedness SharePoint page or attached to the Asset in the Documentation tab of the record in EAM. Purchased spare parts will be maintained by the Divisions. The number of each spare part and its location will be recorded in the SSME Spare Parts Inventory document.

6.2.9 Hours of Service

The NYCT works in conjunction with frontline workers to ensure all workers are rested and prepared to safely complete their duties. Currently, except in an emergency, no employee may work more than sixteen hours of work from the moment s/he begins work until the time s/he finishes.

Before assigning an employee to any overtime work, local supervision must ensure that the employee will complete the work within the sixteen-hour limit. Local supervision is responsible for and must ensure that any employee working overtime will be relieved so that they have a minimum of eight hours between tours.

Management must enforce the sixteen-hour limit and will be held responsible for any violations. Failure by the employee to notify Supervision will result in the employee being considered working without authorization after the sixteenth hour and may result in disciplinary action. In addition to the above, no employee may work more than thirteen (13) consecutive days.

NYCT is exploring additional strategies to continue to improve its fatigue mitigation efforts.

6.3 Investigations

This subsection discusses the criteria associated with the identification of accidents and incidents that require an investigation, notification to external agencies and the generation of required accident/incident reports. Additionally, the section outlines the investigative processes associated with rail accidents, industrial accidents, employee fatalities and employee on the job injuries.

The OSS Rail Field Safety Unit (RFSU) conducts investigations of escalator incidents resulting in customer injury requiring medical treatment, due to escalator defects. The OSS division of Fire Safety conducts investigations of fire incidents and incidents of falling debris/structural failures. The OSS division of Rapid Transit Investigations conducts investigations of rail incidents, accidents and near misses and of serious industrial incidents resulting in employee hospitalization or significant property loss and employee fatality incidents. After the completion of an investigation, a final report with recommendations to develop and implement corrective action plans (CAPs) is issued. Congruently, the final report is also sent to the PTSB; the PTSB responds

with a CAP approval letter. Within a two-month timeframe, the operating department/division develops and issues a CAP to OSS for review and approval to ensure that actions by the operating department/division will minimize, control, correct, or eliminate the risks and hazards identified by the CAP. The CAPs are entered into a database and tracked until closed. Once a CAP is closed by OSS, the CAP including all documentation that pertains to the closure of the CAP are sent to the PTSB for approval and acceptance via a CAP closeout letter. OSS submits quarterly or monthly progress reports to the PTSB. Emergency CAPs initiated by NYCT to ensure safety prior to review and approval by the PTSB are submitted to the PTSB for approval.

If there is dispute regarding a CAP between the PTSB and NYCT, the PTSB program is the authority in this process; however, NYCT will explain their position to the PTSB. At the end of these discussions, the PTSB SSO program has the final approval and authority.

6.3.1 Notifications

6.3.1A Department of Subways Notifications

The Operations Control Center (OCC) shall notify the Office of System Safety (OSS) of all incidents involving:

- A fatality at the scene: or where an individual is confirmed deceased within thirty (30) days of a rail transit-related incident.
- Collision with an individual (i.e. any individual contacting a moving train).
- Person riding on the outside of the train (e.g. surfer) ONLY when it results in an injury or fatality.
- All serious injuries (Employee or Customer) - must meet the following criteria:
  - Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury.
  - Results in a fracture of any bone, except simple fractures (i.e. fingers, toes, nose).
  - Causes severe hemorrhages, nerve, muscle, or tendon damage.
  - Involves any internal organ.
  - Involves second or third-degree burns, or any burns affecting more than 5 percent of the body surface.
- Two (2) or more persons transported for at least medical assessment, no obvious serious injury.
- Derailment includes all rail equipment, on the mainline or in a yard.
- Collisions involving a rail transit vehicle with another rail transit vehicle. Including Hard Adds.
- Collision of a rail transit vehicle, with a motor vehicle, bumping block, and tie bumpers.
- Evacuations of trains to the roadbed or catwalk, self-evacuations, or life safety reasons.
- Evacuations of Station areas.
- Runaway train.
- Switch run through.
- Side Door Drags.
- False Clear Signal Aspects/Incorrectly Displayed Signal Aspects.

- Doors open en route.
- Doors Opened on Wrong Side Without an Accessible Platform.
- Roadway Worker Protection Incidents:
  - Third Rail Explosions involving Work Procedures.
  - General Order Violations.
  - Portable Trip Overruns.
  - Improper Flagging.
  - Train Operator fails to sound horn when passing through an established flagging area and/or Train passes work area at excessive speed.
  - Power On in a Power Off Area
  - Unauthorized Reverse or Wrong Rail Moves (Potential employee contact only).

- Explosions on any Transit Property.
- Escalator accidents. ONLY if the escalator is operating at time of incident, and medical is requested.
- Damage to the Third Rail that disrupts service, including significant third rail damage.
- Property damage of $25,000 or more to rail vehicles or rail-related infrastructure or facilities.
- Asbestos emergencies.
- Steam Pipe Explosions occurring in Manhattan south of 96th Street.
- Passenger or community exposures to hazardous substances.
- Spills of hazardous materials, regardless of quantity, that enter the ground or sewer.
- Spills of hazardous materials of more than 5 gallons that do not enter the ground or sewer.
- Fan plants removed from service.
- Emergency alarm boxes removed from or taken out of service (via fax).
- Fires:
  - Any significant fire, resulting in extensive service delays, and/or cause a serious injury or a fatality.
  - In any Transit facility (i.e. shop, barn, storeroom, station room, concession stands, trains, token booths).
  - Fires resulting from the actions of an outside contractor working on Transit property.
- Activation of a fire suppression system.
- Any hazardous condition determined to be an Unacceptable Hazardous Condition.

6.3.1B Office of System Safety Notifications

I. Public Transportation Safety Board (PTSB) Criteria Accidents

OSS shall notify the PTSB (Phone number (800)866-9368 within ninety (90) minutes of all accidents for which the PTSB has primary responsibility in accordance with Title 49 CFR, Part 674.

II. Federal Transportation Administration (FTA) Criteria Accidents

OSS shall notify the FTA (Phone number (202)366-1863 within two (2) hours of all accidents for which the FTA has primary responsibility in accordance with Title 49 CFR, Part 674.

III. National Transportation Safety Board (NTSB) Criteria Accidents

OSS shall notify the National Response Center (Phone number (800) 424-0201 within two (2) hours of all accidents that the NTSB may assume primary responsibility in accordance with Title 49 CFR, Part 840.3

IV. Department of Labor (DOL) notification:

Notifying the Department of Labor (DOL) within 8 hours of any fatality or hospitalization of two (2) or more employees. Environmental Protection and Industrial Hygiene will liaison with the DOL.

V. Union notification:

The Operations Control Center (OCC) shall notify the Safety Director or delegate according to the OCC notification matrix (attached) of the relevant union(s) of any accidents, fatalities, hospitalizations, or other events which must be reported to a government safety regulator or investigative agency.

NOTE: OSS is the only authorized liaison between NYCT and outside regulatory/investigative agencies (NTSB/PTSB/FTA/DOL). All requests for information from these agencies will be forwarded and responded through OSS.

NOTE: OSS and the Department of Subways (DOS) shall provide administrative and technical support to the NTSB, PTSB, FTA, and DOL during their investigations of criteria incidents.

6.3.2 Accident Investigation Procedures

6.3.2A Office of System Safety Investigations

Investigations are conducted in accordance with the most recent version of Policy Instruction (P/I) 10.28 Accident Investigation Policy Program Manual. The P/I establishes comprehensive procedures to be implemented for Rapid Transit (Rail).

Rapid Transit Investigations (RTI) investigates:

- All derailment and collision accidents involving NYCT and Staten Island Railway (SIR) passenger and work trains.
- All NYCT/SIR rail accidents that meet the following criteria:
  - The RTI Unit shall respond to all employee fatalities, excluding fatalities that result from apparent natural causes and criminality.

- All fatal accidents will be investigated by RTI to conclusion. After a preliminary investigation is conducted and an accident is determined to be an industrial accident, the Rail Field Operations (RFO) unit shall respond to and provide support for the RTI to assist in the investigation.
- All serious employee injuries that occur on the active right-of-way involving a train.
- All potential employee contact (PEC) near miss incidents that involve train and/or right-of-way operations, which did not involve personal injury or damage to equipment or property but could have resulted in death or serious injury.
- Side door drags.
- All High Visibility Accidents regardless of type and/or severity that result in significant media, political or regulatory interest regardless of forgoing criteria, or at the discretion of the Vice President of OSS.
- Investigating serious industrial accidents (amputation, puncture, crushing, burn, chemical exposure, etc.) resulting in hospitalization or accidents resulting in significant property loss.

NOTES:

- The Chief Officer of Investigations and Compliance, Office of System Safety, or his representative, shall be the Investigator-in-Charge at the scene of rapid transit accidents and shall determine the classification of accidents.

- Minor accidents (Hard Add) that result from shifting cars and making up trains in yards where negligible/no damage has occurred may be deemed as an unusual occurrence at the discretion of the Chief Officer of Investigations and Compliance.

Rail Field Operations (RFO) responsibilities:

- Investigating escalator accidents involving in-service escalators where a person requires medical treatment away from the accident scene.

6.3.2B OSS Investigation Procedures for Train Incidents Resulting in Serious Injury or Death to an Employee

To establish a Board of Inquiry. Whenever an accident occurs that results in the death to an employee, a Board of Inquiry shall be convened by the President of New York City Transit (NYCT) to investigate the circumstances of the accident, make findings of fact, determine principal causation and responsibility, and develop recommendations for preventing similar occurrences. In addition, the President may convene the board at his/her discretion to investigate a serious employee injury.

The Board of Inquiry shall:

- Question all witnesses.
- Compile all documentary evidence.
- Ascertain all applicable safety rules.
- Upon completion of its investigation, prepare a written report, which shall:

- Set forth the material facts leading to and causing the accident.
- Determine principal and contributing causes of the accident.
- Reach conclusions as to the persons, policies, procedures, practices, and divisions, as applicable, responsible for the accident.
- As applicable, provide recommendations for changes in safety rules, work rules, or other policies, practices, and procedures of the Metropolitan Transportation Authority (MTA) NYCT to prevent the occurrence of similar accidents.

6.3.2C OSS Investigation Procedures for Derailments/Collisions

OSS investigators are authorized to do all things necessary for proper investigation, including examination or testing of any vehicle, rolling stock, track or any part or any such item when such examination or testing is determined to be required for purposes of such investigation.

OSS examination or testing shall be conducted in such a manner so as not to interfere with or obstruct unnecessarily the transportation services provided by the DOS of such vehicle, rolling stock, or track and shall be conducted in such a manner so as to preserve, to the maximum extent feasible, any evidence relating to the rapid transit accident, consistent with the needs of the investigation and with the cooperation of the DOS.
Investigators will perform the following tasks:

- Interview all employees and any witnesses to the accident. To prevent unnecessary delays in post incident testing, post-accident /incident interviews may be scheduled by the OSS after the testing has been completed.
- Document the position(s) of the train(s) involved, skid marks, and the location(s) of any other equipment that may have been involved.
- Inspect the tracks, switches, signals, and vehicles involved in the accident to determine their condition.
- Inspect the immediate area to determine:
  - Damage to wayside equipment.
  - Damage to car equipment.
  - The location of other trains that may have been in the area at the time of the accident.
  - Damage to tools, equipment, facilities.

DOS Divisions will upon request assign representatives to assist OSS personnel on an “as needed” basis to provide technical assistance in those areas where detailed knowledge or expertise is required.

Witness Interviews/Statements: All employees involved in the occurrence of a collision or derailment shall:

- Be interviewed by OSS investigation personnel concerning their knowledge of the circumstances surrounding the accident. The interviews will be conducted as per the current union contractual agreements.
- Submit written statements summarizing their account of the events leading up to and including the accident.

OSS: shall request that written statements are secured from all accident participants, other eyewitnesses and persons called to the scene, such as police, emergency, medical and operational personnel, who may have information pertinent to the inquiry.

Accident Analysis: All DOS Divisions shall provide pertinent documentation concerning the accident to OSS within ten (10) business days of the occurrence to ensure that sufficient information is available to enable OSS investigators to complete their work. This documentation shall include, but not be limited to, the items listed in Section IV of this section of the policy instruction.

Rapid Transit Accident/Incident Reports:

The accident/incidents reports (preliminary and final reports) developed by OSS are furnished to operating departments and the PTSB. In general, the reports contain; a synopsis, background, investigation elements (injuries, weather, damage costs, etc.), significant findings/analysis, conclusion, actions taken, and recommendation.

- **Preliminary Report**: A preliminary report of the accident/incident will be submitted to the Executive Vice President, Subways, within five (5) working days of the accident/incident.
- **Final Report**: Upon completion of the overall investigation, OSS will prepare and submit a final report containing findings, conclusions, and recommendations concerning the accident/incident to the Executive Vice President, Subways, as soon as possible based on the receipt of relevant information/reports.

NOTE: Reasonable efforts shall be made to protect from disclosure in a Draft or the Final Report specific medical information concerning individual employees.

6.3.2D OSS Investigation Procedures for Escalator Accidents
OSS Rail Field Operations is responsible for:

- Notifying Operating Department of intent to investigate any accident which meets OSS criteria.
- Investigating escalator accidents involving in service escalators where a person requires medical treatment away from the accident scene.

The following is a list of escalator incidents that the Rail Field Safety Unit normally responds to when medical assistance is requested/required by the customer:

- Incident involving a small child if the escalator is in service at the time of the incident.
- Incidents involving reports of obvious escalator defects, i.e., broken/collapsed, or missing steps, broken/missing comb plate, broken handrail, dislodgement of side panel, etc.
- Incidents involving reports of failure of equipment to operate properly, i.e., sudden stops or uneven speed, handrail malfunction, etc.
- Multiple injuries, involving two or more people on the same escalator when no additional information concerning the escalator or inappropriate customer behavior is available.
- Serious injuries, i.e., crushing, amputation, body part caught in the equipment.

- *Injuries that are caused by medical conditions or reported inappropriate customer behavior are not included in this category. Additionally, "Out of System" escalators maintained by a Private Developer are not included.*

The following are the actions taken by the Rail Field Safety Unit during an investigation:

Escalator Incident Investigation Protocol

The following protocol will be followed in the event of an escalator incident, involving a passenger injury, within the New York City Transit System.

- Station Supervisory or Elevator and Escalator (E&E) personnel (whoever arrives first) will immediately shut off power to the escalator by pressing the emergency stop button, take the escalator out of service and secure the incident scene, i.e. take appropriate steps to preserve the integrity of the incident scene.
- Station Supervisory personnel will immediately notify the Division of Stations Command Center (212) 712-4236, located at the Operations Control Center (OCC) 354 West 54th Street.
- Stations will, in turn notify both E&E Maintenance personnel and a representative from the OSS Rapid Transit Investigation (RTI) Section. ***(NOTE: Notification to the OSS-RTI Unit is only required when the escalator is in service at the time of the incident and the nature of the passenger injury requires medical attention. Otherwise, E&E should be notified that the incident is a non-OSS response incident.)***
- Stations should provide OSS the following information, if available:
  - Time of Escalator Incident Occurrence
  - Escalator #
  - Station Name & Train Line
  - Booth Number & Telephone Number
  - Description of the Customer (Male/Female, Child)
  - Description of the incident & injury
  - If EMS responded and the hospital the customer was transported to (if applicable)
- A representative from the OSS Rapid Transit Investigation Section can be reached, at (646) 252-5949 from 2300 hours on Sunday through 2300 hours on Friday. For weekend notification beginning 2300 hours on Friday through 2300 hours on Sunday, see the Rapid Transit Investigation Section's "Weekend Coverage" memorandum distributed by the Office of System Safety.
- The RTI representative will notify the OSS Rail Field Safety Unit by positive communications and provide the following information if available:
  - Time of Escalator Incident Occurrence
  - Escalator #
  - Station Name & Train Line
  - Booth Number & Telephone Number
  - Description of the Customer (Male/Female, Child)
  - Description of the incident & injury
  - If EMS responded and the hospital the customer was transported to (if applicable)

- A representative from the OSS Field Safety Unit, will notify E&E Control and Stations whether OSS will respond or not. If OSS response is indicated, there is a 2-hour response time after OSS intent of response is indicated.
- The scene of the incident must not be altered in any way until an OSS Rail Field Safety Unit representative arrives and has completed his/her investigation or releases the equipment. ***(If it is necessary to alter the incident site, the scene should be documented through photos, sketches, etc., prior to altering the site.)***
- Upon arrival, the OSS Rail Field Safety representative will investigate the incident scene and obtain all possible pertinent information.
  - Photograph the accident scene.
  - Inspect the immediate area for property, bus, train, equipment, and tools and/or parts damage.
  - Document, measure and record the position of bus, train, equipment, tools and/or parts, injuries, and any other information that may be applicable.
  - Interview the employee(s) and any witnesses within 24 hours or as soon as possible unless the employee or witness is not available for medical reasons.
  - Secure all equipment that may require third party examination.
  - Review statements, drug/alcohol testing results, employee work history, employee training records, personal protective equipment usage (job task assessment form), inspection records, procedure/policy, and other supporting documents.
  - Request third party testing and/or examinations of bus, train, equipment, tools and/or parts, if necessary.
  - Provide a preliminary report within 5 working days.
  - Issue a final report to the Department Head.

NOTE: Reasonable efforts shall be made to protect from disclosure in a draft or the final report specific medical information concerning individual employees.

- As a result of the investigation, a report is generated with recommendations and tracked to closure utilizing a tracking database.
- Upon completion of his/her investigation, the OSS Rail Field Safety representative will turn the escalator over to E&E for thorough mechanical inspection and completion of any repairs that are necessary. ***(NOTE: OSS response and investigation of an escalator incident does not relieve the operating division of the responsibility to conduct an independent investigation and formalize the findings.)***
- E&E will determine when, and if, the escalator may be returned to service.
- Upon determining that the escalator may be returned to service, E&E will be responsible for restoring power to the escalator and ensuring that it is in proper working order.

6.3.2E DOS Investigation of Industrial Accidents or Derailments/Collisions

For an industrial accident or derailment/collision of a passenger/work train on the mainline or in a yard the Department of Subways shall:

- Notify OSS immediately.

- Notify emergency response agencies per most recent version of Policy Instruction, 10.32 *Procedures for Response to Rapid Transit Emergencies*.
- Do not move, repair, service, clean, or release the train(s) into revenue service unless authorized to do so by OSS.
- Secure the train(s) at a facility designated by OSS.
- Do not disturb the accident site except where necessary to prevent injuries, loss of life, and/or to maintain the integrity of the system.
- Document any significant changes that were made to the accident site.
- Restore service only after consultation with the Vice President, System Safety or his/her designated representative.
- DOS Divisions will, upon request, assign representatives to assist OSS personnel on an "as needed" basis to provide technical assistance in those areas where detailed knowledge or expertise is required.
- DOS will generate a line management incident package/report for distribution.

DOS Divisions will upon request assign representatives to assist OSS personnel on an "as needed" basis to provide technical assistance in those areas where detailed knowledge or expertise is required.

Accident Analysis: All DOS Divisions shall provide pertinent documentation concerning the accident to OSS within ten (10) business days of the occurrence to ensure that sufficient information is available to enable OSS investigators to complete their work. This documentation shall include, but not be limited to, the items listed in Section IV of this section of the policy instruction.

DOS Responsibilities:

I. Supporting OSS Rapid Transit accident investigation activities by providing:

- Witness lists.
- Pertinent drawings/diagrams of the accident site.
- Photographs of the accident site.
- Pertinent equipment test, maintenance, and inspection records.
- All reports of any defects found as the result of post-accident inspections of vehicles, track/switches, and signals.
- All reports of any defects found as the result of post-accident inspections of motorized (gas/electric/pneumatic/hydraulic) equipment used in track maintenance and construction activities.
- All available video recordings that may have captured an incident.
- Re-enactment support as required

II. Division Head/ Chief Transportation Officer & all DOS Divisions

- Responsible for ensuring that the support requirements described in this section are provided to OSS investigators within the time frames listed.
- Provide a Managerial Investigation report within ten (10) business days of the incident. This report should include the following:
  - Synopsis overview of the incident

    - Findings
    - Hours of Service Analysis
    - Conclusions
    - Recommendations to prevent reoccurrence
    - Actions taken
- Provide preliminary estimates of damage to facilities and equipment, within two (2) business days of the accident.
- Provide copies of witness statements of all involved employees within two (2) business days of the accident.
- Provide final reports of estimated damage and the costs associated with restoring service within ten (10) business days of the accident.
- Provide the results of any post-accident operational tests or inspections within ten (10) business days of the accident.
- Provide the results of drug and alcohol screening tests administered to any employee within ten (10) business days of the accident.
- Provide all other requested information within ten (10) business days of the request.
- Assign representatives to provide technical assistance to OSS, PTSB and/or NTSB investigators, as required, while investigating:
    - Fatal accidents.
    - Derailments/collisions.
    - Accidents which result in injuries to two or more crew members or passengers, and
    - Emergency evacuation of passengers.
    - All High Visibility Accidents regardless of type and/or severity that result in significant media, political or regulatory interest regardless of forgoing criteria, or at the discretion of the Vice President of OSS.

Reasonable efforts shall be made to protect from disclosure in a draft or the final report specific medical information concerning individual employees.

DOS is responsible for supporting OSS Rapid Transit & OSS Rail Field operations accident investigation activities by providing the necessary information as required by the most recent version of P/I 10.28 Accident Investigation Policy Program Manual.

6.3.2F Employee On-the-Job Injury Investigation

Managers and supervisors must investigate employee injuries and enter the injury incident into the online portal, Smartly. The Smartly app is run by Sedgwick Claims Management Services, Inc, who NYCT has transitioned the administration of Workers' Compensation claims to. A Sedgwick Claims Examiner will contact the injured employee and Manager to further discuss the incident. Supervision must identify root causes and ensure corrective actions or safety risk mitigations are implemented within 2 business days of an accident.

Supervision and management must follow the Injury Response Guidelines to ensure proper accident reporting and investigation. Follow up with employees that are not able to return to work due to an on the job injury must also be conducted.

The Department of Subways, Rolling Stock and MOW issued Departmental Procedure 5.3 *Accident Reporting* to inform all Maintenance of Way employees how to respond to, investigate, and report on-the-job injuries, based on the latest Transit policies.

6.3.2G Contractor Injury Investigation

For all incidents involving Design Builder/Contractor or Subcontractor personnel, the public, and/or property damage, the PCEO/PMC or their designee shall ensure that the Design Builder/Contractor complies with the requirements of the contract by submitting an MTA C&D Construction Incident Reporting Form (CIR) properly completed by the Design Builder/Contractor Project Safety Representative (CSE/CSS/CSM/SM/SC). For incidents classified as OSHA recordable, the Design Builder/Contractor shall also provide a copy of the C-2F or the latest form. The PCEO/PMC shall retain the original report(s) in the contract file and forward a copy of the completed incident report(s) to each of the following within 24 hours of the accident:

- C&D, VP Safety Executive, 2 Broadway, 8th Floor
- Office of System Safety, 2 Broadway, 28th Floor, and
- MTA Risk Management, 2 Broadway, 16th Floor (when applicable)

The PCEO/PMC shall also ensure that the Design Builder/Contractor provides a completed Construction Incident Reporting Form for any accident where no lost time is incurred or is not deemed OSHA Recordable to the C&D Safety Oversight.

After any serious incident, the PCEO/PMC shall ensure that the Design Builder/Contractor convenes an investigative meeting within 24 hours for the purpose of determining the cause of the incident and actions to be taken by the Design Builder/Contractor to prevent a recurrence of the incident. The PCEO/PMC shall ensure the Design Builder/Contractor makes available all personnel involved in or witness to the incident at this investigative meeting for interviews. The PCEO/PMC or his representative and the Design Builder/Contractor Project Safety Representative are required to attend the investigative meeting. The PCEO/PMC will also notify C&D Business Unit Safety and C&D Safety Oversight at least 24 hours prior to the meeting, advising of the meeting time and location so that they may send a representative(s). The Design Builder/Contractor Project Safety Representative shall, if necessary, update the project Health and Safety Plan (HASP)/Accident Prevention Program/Hazard Communication program and Safe Work Plan (SWP) to include post-accident measures to prevent recurrence of the accident.

6.3.2H Staten Island Railway Customer Investigation

For accidents involving customers, the Staten Island Railway employees at the location of the accident notify their supervision, the OCC, and the accident information is documented. Management investigates the accident, has the employees at the accident location complete Form SR-2 Correspondence/Incident Detail Sheet and collects any other pertinent information available from the accident site. SIR management then writes a memorandum summarizing the accident and any action taken by SIR employees.

6.3.2.I Station Environment and Operations Customer Investigation

For accidents involving customers in the stations, the employees at the location of the accident notify their supervision. Supervision investigates the accident and completes a Customer Unusual Occurrence Report (attached).

6.3.2J NYS Public Transportation Safety Board Investigation of NYC Transit Accidents

In the event of an incident involving a rail transit vehicle or taking place on rail transit-controlled property where one or more of the following occurs, the PTSB will submit a Request for Information to OSS:

(1) A fatality at the scene; or where an individual is confirmed dead within thirty (30) days of a rail transit-related incident
(2) Injuries requiring immediate medical attention away from the scene for two or more individuals
(3) Property damage to rail transit vehicles, non-rail transit vehicles, other rail transit property or facilities and non-transit property that equals or exceeds $25,000
(4) An evacuation due to life safety reasons
(5) A collision at a grade crossing
(6) A main-line or yard derailment
(7) A collision with an individual on a rail right of way; or
(8) A collision between a rail transit vehicle and a second rail transit vehicle, or a rail transit non-revenue vehicle

OSS investigates and prepares a report to the Public Transportation Safety Board and provides requested information to the PTSB. The PTSB has the authority to conduct an on-site investigation with NYC Transit representation.

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6.3.2K DOS investigation of PTSB reportable accidents

- The DOS shall investigate PTSB reportable accidents regardless of whether or not they are investigated by the Rapid Transit Investigation unit; typical accidents that require investigation by DOS are listed below: A fatality at the scene: or where an individual is confirmed dead within thirty (30) days of a rail transit-related incident. All serious injuries (Employee or Customer) - must meet the following criteria:
  - Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury.
  - Results in a fracture of any bone, except simple fractures (i.e. fingers, toes, nose).
  - Causes severe hemorrhages, nerve, muscle, or tendon damage.
  - Involves any internal organ.
  - Involves second or third-degree burns, or any burns affecting more than 5 percent of the body surface.
  - Injuries requiring medical attention away from the scene for two or more individuals.
  - An evacuation due to life safety reasons.
  - Collision with an individual on a rail right of way, i.e. train striking an employee or customer. This includes both fatal and non-fatal injuries.
  - Runaway trains

NOTE: The DOS investigation must be documented in a final report that includes a description of investigation activities, identified causal and contributing factors, and a corrective action plan or safety risk mitigation (if applicable).

6.3.3 Near Miss Investigations

6.3.3A OSS Investigation of Near Miss Incidents

OSS Rapid Transit Investigation shall investigate Potential Employee Contact (PEC) type near miss incidents to include but not limited to:

- General Order Violations.
- Miscellaneous: Unusual incidents that could have resulted in death, serious injury or significant equipment/property damage.
- Improper flagging.
- 3rd Rail explosions involving work procedures.
- All incidents involving potential employee contact with trains while working on the roadbed.
- Portable trip overruns.
- Train Operator fails to sound horn when passing through an established flagging area.
- Train passes work area at excessive speed.

NOTE: OSS shall maintain a system for tracking all near miss PEC incident recommendations through closure.

Additionally, OSS has established near-miss committee to review and conduct quarterly trend analyses on both potential for employee contact (PEC) and non-PEC near-miss incidents. The committee consists of the Chief Officer of OSS - Operations, the Chief Officer of OSS - Hazard Assessment, the Manager of OSS - Rapid Transit Investigations, and the Manager of OSS - Hazard Analysis. All committee members review near-miss incident data to identify and encourage positive trends, develop corrective actions to combat negative trends, track all recommendations to completion, and ensure that implemented recommendations are periodically reviewed for effectiveness.

6.3.3B DOS Investigation of Roadway Worker Protection Incidents

All Roadway Worker Protection incidents involving train and/or right of way operations, which did not involve personal injury or damage to equipment/property, but could have resulted in death or serious injury, must be immediately reported to the supervisor of the employee(s) involved. Supervisory personnel or designee must handle the reporting of the incident as follows:

- Immediate notification to the OCC
- Immediate notification to the Divisional Chief Officer.
- Immediate notification to the OSS.
- Initiate an immediate investigation of the incident in order to determine the causative factors involving the incident.
- Issue an incident report within ten (10) business days of the incident to the Divisional Chief Officer of the employees involved and submit a copy for review to OSS. This report should include the following:
  - Synopsis overview of the incident
  - Findings
  - Hours of Service Analysis
  - Conclusions
  - Recommendations to prevent re-occurrence
  - Actions taken

NOTE: Recommendations must be tracked to closure with monthly status reports submitted to OSS.

The types of incidents that must be handled in this manner include the following:

- Switch run-throughs.
- General Order Violations.
- Miscellaneous Incidents: Unusual Incidents that could have resulted in death, serious injury or significant equipment/property damage. Incidents involving potential employee contact with trains while working on the roadbed.
- Improper flagging.
- 3rd Rail explosions involving work procedures.
- Portable Train Stop Overruns.
- Train Operator fails to sound horn when passing through an established flagging area and/or Train passes work area at excessive speed.
- Power On in a Power Off Area

6.3.4 Major Incident Follow-Up Report (MIFUR)

OSS shall maintain a system to track departmental responses to all OSS recommendations (corrective action plans or safety risk mitigations) regarding major incidents (i.e. derailments, collisions, and employee fatalities) to closure.

6.4 Internal Safety Review

This subsection describes the process used by NYCT to ensure that planned and scheduled internal safety reviews are performed to evaluate compliance with the ASP. The internal safety review process will determine if all organizational elements, equipment, procedures, and functions are performing as intended from a safety perspective.

6.4.1 Scope of Activities

The objectives of the review process are to provide a mechanism for determining if the plan has been effectively implemented. The internal safety review objectives are as follows:

- Verify that safety programs have been developed/implemented in accordance with ASP
- Assess the effectiveness of the safety programs
- Identify program deficiencies
- Verify that corrective actions are being developed, implemented, and tracked to closure
- Recommend improvements to the ASP
- Provide management with an assessment of the adequacy of the ASP
- Assure continuing evaluation of the safety related programs

6.4.2 Office of System Safety

The Office of System Safety is responsible to plan, schedule and implement an internal safety review program in compliance with state and federal regulations. All of the divisions within the Department of Subways are responsible to provide support and assistance in the performance of safety reviews and to implement corrective actions as needed. Typical review activities include record reviews, physical inspection of stations, yards, shops, plant and equipment, interviews and observations of operations and other operational activities. While ongoing inspections may be conducted on an unannounced basis, the reviews will be performed on a coordinated basis with management support. Safety reviews focus on safety related NYC Transit activities identified within the ASP.

6.4.3 Managing the Review Process

Under the direction of the Accountable Executive and the Chief Safety Officer, the OSS is responsible for managing the review and ensuring the independent nature of the review process as

well as carry out a plan to address the identified safety deficiencies with consideration for Safety Committee input, data analysis, and other respective items. The Department of Subways shall support the review process by ensuring personnel are available that are needed to participate in the review, provide access to the locations being reviewed and provide required documentation. The following is the Office of System Safety internal Safety Plan review program:

- OSS conducts reviews of Department of Subways' operating Divisions ASP based on a three-year review cycle.
- The sections of the ASP to be reviewed, each year, are selected on a rotating basis to complete the comprehensive review within the three-year cycle.
- An Opening Conference is held between OSS and senior management to discuss the purpose and requirements of the reviewing process.
- OSS develops a checklist to include all the elements of the ASP section to be reviewed.
- OSS coordinates the ASP review process with the PTSB. The PTSB is invited to participate in the review process.
- OSS conducts comprehensive ASP reviews through meetings with the identified responsible units, interviewing managers and supervisors, conducting site inspections, and collecting and reviewing supporting documents.
- At the conclusion of the review process, a Closing Conference is held between OSS and senior management to discuss all the significant findings and recommendations.
- A final report is issued detailing all review findings and recommendations for correcting deficiencies. The comprehensive checklist is also included.
- The final reports are distributed to senior management and the PTSB.
- Senior Management is required to provide OSS with a corrective action plan indicating action taken/to be taken; implementation schedule; and individual or Department responsible for the implementation.
- OSS tracks the status of implementation of the corrective action plan to ensure that the recommendations are implemented and provides an annual report to the PTSB that summarizes the results of the reviews and the status of the corrective actions or recommendations.
- OSS provides quarterly updates to the PTSB on the status of open recommendations.

6.4.4 Safety Audits Conducted by MTA Audits

In addition to the systematic ASP reviews that are conducted by OSS, MTA Audit conducts audits that focus on compliance with safety requirements annually.

6.5 Management of Change

This subsection describes the process for identifying and assessing changes that may introduce new hazards or impact safety performance. NYCT utilizes elements of a configuration management process to address system modifications where safety certification is necessary. Configuration management involves the monitoring of a system's/item's performance throughout its life cycle, while ensuring that all efforts are made to avoid introducing new hazards and thereby minimizing the potential for negative repercussions. When modifications to a system/item are

made, the subsequent need for new/additional training or changes to maintenance/operational practices is also taken into account in order to address any possible procedural impacts.

6.5.1 Division of Car Equipment – CCF/PICF

Division of Car Equipment (DCE) uses the Configuration Change Form/Part Identification Change Form (CCF/PICF) to initiate the review and approval process of a proposed change to an item of equipment used by NYCT. The issuance of an approved CCF/PICF initiates the implementation of the approved change.

The CCF is used when a change has been made to the material, form, fit or function of a system, part or item of equipment used by DCE. The PICF is used when a part or item of equipment is unchanged, but the identifying part number or description needs to be corrected or changed.

The following is the process for the configuration change:

- **CCF/PCIF Initiation** – The person or organization who desires to initiate a configuration change or a part identification change fills out the CCF/PICF and sends the completed to:

  New York City Transit, Division of Car Equipment
  Assistant Chief Mechanical Officer (ACMO)
  Car Equipment Engineering & Technical Support
  130 Livingston Street
  Brooklyn, NY 11201-5190

- **Log in Status** – ACMO forwards the CCF/PICF to the Technical Services Unit where it is logged in, date stamped, reviewed for completeness, assigned a tracking number and a routing stamp. It is then forwarded to the Director of Engineering with a receipt acknowledgment sheet. The Director of Engineering completes the acknowledgement sheet by entering the review distribution list and an estimated review completion date, signs it and returns it to the Technical Services Unit, which logs the acknowledgement sheet data.

- **Engineering Review** – The Director of Engineering forwards copies of the CCF/PICF package to the appropriate Engineering Manager for their review and comment. After the review the packages are returned with recommendations for either concurrence or rejection with their comments. The engineering managers also provide a list of all affected drawings and documents under engineering control with estimated dates for the completion of the required changes. If a new System Upgrade Bulletin or Engineering alert is required, the number is to be entered with the expected issuing date. The Director of Engineering reviews the recommendations and comments and incorporates them on the original CCF/PICF package, routes it to the Engineering Manager for their signature, lists the affected drawings and documents, and the estimated change completion date to the Technical Services Unit for logging and post-engineering review processing.

- **Rejected CCF/PICF** – If the CCF/PICF has been rejected, the Director of Engineering, also includes a transmittal letter to the initiator from the Assistant Chief Mechanical Officer, Car Equipment Engineering & Technical Support (CEE&TS) stating the reason for the rejection. The technical Services unit forwards the rejection letter for the ACMO, Car Equipment Engineering & Technical Support's signature. The signed cover letter is sent to the initiator of the CCF/PICF.

- **Post-Engineering Review Phase** – The Technical Services Unit logs in the return of the original CCF/PICF package, reviews the affected drawing and document list, notes the proposed completion dates and forwards the original CCF/PICF package to the Material Standards & Evaluation Unit for their review and approval. The Director, Material Standards & Evaluation reviews and initials the CCF/PICF and returns it to the Technical Services Unit with a copy of the G-10/G-11 Form that is submitted to Materiel. Concurrently, copies of the CCF/PICF package stamped with the desired return date are sent to the appropriate (dependent on the car class affected) ACMO(s) (North Maintenance Shops, South Maintenance Shops and Overhaul Shops) for the review and comment. Additionally, if changes are required in documents not under engineering control, copies of the CCF/PICF package are sent to the appropriate managers for review and to provide estimated dates for when the changes will be completed. Each copy sent out for review is to be signed by the designated recipient and returned to the Technical Services Unit for logging in. If any of the comments returned require further engineering review, then a copy of those comments is forwarded to the Director of Engineering for review following the procedures outlined above for the engineering review. When the original CCF/PICF package, initialed by the Director, Material Standards & Evaluation, is returned to the Technical Services Unit from the Material Standards and Evaluation Unit it is logged in and forwarded to the ACMO, CEE&TS for approval and signature.

- **Final Approvals and Distribution** – The original, signed CCF/PICF package is forwarded to Material for review and signature of the Assistant Chief Procurement Officer (for DCE). Material makes copies of the package and returns the original to the Technical Services Unit with an estimated date for when changes to the parts catalog will be completed. Concurrently, five copies of the original CCF/PICF package signed by the ACMO, CEE&TS is then hand carried to System Safety for review and comment. If no comments are received within one week, approval is to be assumed. After all approvals have been obtained, the Technical Services Unit prepares a DRN for the CCF/PICF and distributes copies according to the current distribution list. The Technical Services Unit also prepares and sends a letter from the ACMO, CEE&TS notifying the originator of the approved CCF/PICF. The original, signed CCF/PICF is then filed with the DRN and G-10/G-11 form attached.

6.5.2 MOW Engineering

The policy for MOW Engineering is to replace, install or repair the defects "in kind" and as per approved design, recommended guidelines, or standard drawings.

When a major modification is required that may be dictated by field conditions, field experiences or a new available technology and for the cases that the changes are of a nature not related to C&D projects or their designs, the configuration management for the project is practiced as follows:
A request for proposed change is made.

- The proposed changes are evaluated by Engineering and may be circulated to user groups or pertinent departments for comments and approval.
- Drawings, sketches, or scope of work may be prepared or revised using the related standards depending upon the complexity of the proposal.
- When drawings are created for construction, title box is changed to indicate the revision and is forwarded for final engineering approval signature and installation.
- During or after the performance of the work, new revised drawings and other documents are kept as new standard drawings for referencing and record keeping.

When the changes are proposed and budgeted for the Capital Program, C&D provides designs and prepares revised documentation and construction drawings for installation. The revised as-built drawings prepared by C&D are forwarded to MOW Engineering where they replace the now obsolete record drawings and become the new record drawings for configuration management.

MOW Engineering utilizes a Configuration Management process to control changes associated with Communication Based Train Control (CBTC) Territories and the signaling portion of Automatic Train Supervision - A Division (ATS-A). The process is based on the following:

- Electronics Industry Alliance (EIA) 649 National Consensus Standard for Configuration Management
- United States of America, Department of Defense, Military Standard 973 – Configuration Management

Each specific process (CBTC Territories, the signaling portion of ATS-A) has been agreed to and signed off by all parties that will participate in that process. When a change is proposed the Configuration Control Authority, a board consisting of all areas involved in the change, is convened. The charge to the board is:

- Determine whether the change will impact the configuration.
- Agree that the proposed change is necessary.
- Agree that the design, development and testing of the change should proceed.
- When the change is complete, review the test results to certify that the tests are complete, accurate and acceptable.
- Agree upon a rollout task plan/schedule including a back-out plan in the event of an unforeseen failure.
- Advise that the configuration level should be revised in the Configuration Management System database.

Testing must include Regression Test Procedures that are designed to ensure that existing functionality is not impacted by the change. The Configuration Control Authority is charged to ensure that all changes that affect the configuration are properly coordinated, reviewed, approved, documented, tested, and then implemented.

For changes that affect vital or safety-critical functions or non-functional requirements, there is added an extra dimension to change and configuration management: The NYCT System Safety Certification Board (SSCB), comprising senior NYCT representatives of Capital Program Management, the Office of System Safety, Maintenance of Way (Electrical), Maintenance of Way (Engineering), Technology Information Services, Car Equipment Engineering, Rapid Transit Operations and C&D Signal Engineering. The SSCB is managed by C&D's Vital Systems Integrity Group and chaired by the Signals and Train Control Program Executive.

Proposed safety-related changes (for example, new versions of safety critical software) are first presented and documented in Engineering Change Requests (ECRs) or other official correspondence. Once cognizant personnel have approved the request, the proposed modification, and its associated safety analysis (performed by the system supplier, NYCT, and the NYCT-Independent Safety Assessor (ISA)) is presented to the SSCB. SSCB members from the aforementioned disciplines attend the meetings. Based on the adequacy of Safety Analysis presented, the SSCB approves such modifications.

The following are documents that describe the existing Configuration Management procedures for recent projects:

- Configuration Management Procedure for Communication Based Train Control (CBTC), Revision 0, Dated 1/24/2007

- Configuration Management Procedure for Automatic Train Supervision - A Division (ATS-A) Signal Components, Revision 1, Dated 11/08/2007

- Operations Control Center (OCC) Change Management Procedure, Revision 2, Dated 9/17/2007

During construction C&D has control of the project including submittals. However, if determined to be required during project design, Division 1 Section 01 33 00 Asset Management, of Signaling and Communication projects will contain specific Configuration Management requirements. MOW Engineering monitors the contractor's meeting of the requirements and the Configuration Management process during construction as well as reviewing and commenting on all deliverables.

6.5.3 Staten Island Railway

As part of NYCT DOS, Staten Island Railway does not have separate Configuration Management (C/M) process in place. However, SIR Department of Capital & Special Projects in conjunction with divisional management ensures as much as possible, that the integrity of all NYC Transit/ SIR properties, equipment, systems design elements, etc. are maintained throughout their lifecycles. Any changes to an individual sub-system, or fleet/inventory wide change is fully governed by C&D Capital Design, Rehabilitation and Construction process and established NYCT MOW Engineering and DCE Engineering and Stations C/M process. Any changes, modifications or replacements and additions are recorded on as-built drawings in a timely and effective manner. The responsible C&D and DOS departments are making changes utilizing C/M process; make configuration changes if necessary, incorporating these changes into all appropriate technical documentation, and ensuring that all necessary units (including OSS and SIR as the user) are made aware of such changes.

6.5.4 MTA-Construction & Development

Change Management for Design Bid Build Projects Procedure (PRO 23-03) and Change Management for Design Build Contracts Procedure (PRO 24-03) have been prepared to provide guidance in obtaining approval for changes to the project scope of work, allocated design cost and/or schedule. The intent of these documents is to provide a documented approval process for changes to the project scope of work, the design cost and/or schedule during the design phase of a project.

A Project Change Notice (PCN) Form is used for documenting the approval process.

The following are the requirements for the Project Change Notice approval process:

- The Project Architect/Engineer/Design Consultant shall initiate the process by filling in the required sections of the form including the Design Change Description, Reason, and Design Impact sections. Other supporting documentation may be attached to the form.

- The Project Architect/Engineer/Design Consultant shall obtain concurrence signatures from his/her Principal Architect/Engineer and PCEO or their designee.

- The Project Architect /Engineer/Design Consultant shall then submit the form to the Design Manager for concurrence.

- If in concurrence with the request, the Design Manager completes the remainder of the form including the Construction Impact and Budget Impact Summary sections and then signs the form and submits it to the PCEO. If the PCEO is not in agreement with the request, he/she shall meet with the appropriate discipline Principal Architect/Engineer/Design Consultant to resolve the matter.

- The Design Manager submits the form to the PCEO for disposition. If the PCEO agrees with the requested change, the Business Unit Lead signs the form and arranges for implementation of the change(s). If the PCEO is not in agreement, the Business Unit Lead shall resolve the matter with the appropriate PCEO. The Principal Architect/Engineer shall arrange this meeting.

- If the total value of the change (including design, construction and supporting costs) is less than $100,000, approval of the PCEO is required.

- If the total value of the change is between $100,000 to $249,999, the PCEO shall obtain additional concurrence from the; Sponsor Department Project Lead, Deputy Vice President of Program Controls, Contracts Lead, Sponsor Department Capital Program Officer and the Chief Budget Officer.

- If the total value of the change is $250,000 or more and for all retroactive change requests, the PCEO shall obtain additional concurrence from the Business Unit Change Committee

Contractor's and Consultants Submission and Requests

The Contractor is required by the contract to include all submittal and approval activities in the schedule. For design build contracts, procedures for handling submissions are described in those contracts.

Contractor's General Submissions

Prior to or immediately after the award of contract, the PCEO will procure a design personnel list from the Design Manager (DM). The PCEO will also procure the Contractor's submittal list, progress schedule, and submittal plan. Design personnel will be informed of this submittal plan and required submittal schedule. The PCEO will coordinate the review among the various disciplines. The Contractor shall identify long delivery time items and submit those impacted drawings/submittals far enough in advance to maintain the overall schedule.

The PCEO is responsible for the review of all submitted documents to verify that contract submittal requirements are met and that all differing field conditions are identified, as necessary. If necessary, the PCEO may arrange for special meetings between the design personnel and the Contractor's counterparts to coordinate submittal requirements of critical items or for special needs. The Contractor may be allowed to forward submittals to the responsible Design personnel with a copy of the transmittal letter to the PCEO. Comments or approval by the reviewer will be sent to the PCEO. The PCEO will review and forward the reviewers comments to the Contractor. Where the work of more than one trade is indicated on a shop drawing, the PCEO will coordinate with the required design groups for coordinated review. Document control (including logs) shall be maintained by all parties concerned to assure a timely and properly coordinated submittal review and approval process. Biweekly status reviews may be required.

The PCEO will consider the need for meetings to discuss orientation or clarification between the Contractor or supplier. Some of the reasons for identifying a need for an orientation or clarification session are:

- Critical items that must be processed without delay.
- To clarify requirements for unusual items, items that may not be industry standards or that are peculiar to NYCT.
- Items that are known to have been problems on previous projects.

Record and As-Built Drawings

The Contractor shall submit Record drawings to the PCEO in stages during construction (refer to contract specific requirements) and As-Built drawings after completion of the work. The Contractor shall also submit, for approval and in accordance with contract requirements, an updated Project Drawings List along with the updated drawings.

General Construction Drawings

The PCEO shall verify that all as-built drawings are properly made by the Contractor to meet the contract requirements. These drawings, if required, are to be reviewed by the User Departments. Existing as-built drawings for rehabilitation contracts or rehabilitation work may need to be revised by the Contractor. The existing drawings can be obtained from the User Departments.

Operations and Maintenance Manuals

The Contractor shall deliver operations and maintenance manuals to the PCEO in accordance with contract requirements. After they are reviewed, these manuals are sent to the design personnel. After these are received with the review comments, the PCEO shall forward copies to the User Department for review (four weeks' time). The PCEO returns the manuals with any resultant comments to the Contractor. A "Comments Resolution Meeting" with the Contractor may be required to resolve user comments. Copies of approved manuals shall be on-site during performance tests and final inspections. The Contractor shall include the test performance data, if required, and resubmit the final manuals to the PCEO. The PCEO, upon their acceptance, shall submit final manuals to the appropriate User Departments no later than three weeks after the pre-final inspection.

Consultant Design Documents

Based on project life cycle guidance, a comprehensive design compliance review will be conducted by in-house design personnel in sufficient depth to ensure that the level of quality of the work produced by the Consultants is adequate and consistent with work produced by the MTA-C&D. All findings of errors, inconsistencies, omissions, or conflicts found during the review shall be brought to the Consultant's attention promptly. No actual revisions or changes are to be made to the work done by the Consultant. Upon receipt of the design review comments from the design personnel, user department and other design team members, the DM will give the Consultant written notification indicating whether NYCT has accepted the design and will direct the Consultant with regard to disposition of exceptions, delivery of the documents for signature, instructions for their printing or other steps as may be appropriate.

6.5.5 Procurement

Sound procurement procedures afford New York City Transit (NYCT) the capability to maintain the integrity of its equipment and preserve the efficiency of its system; all while helping to ensure the safety of customers and employees. NYCT requires that any department/division wishing to procure materials, supplies or services execute formal purchase requisitions in accordance with Chapter II, Section C of the agency's Material Policy Instruction Manual (an addendum to P/I 4.2.3). All formal user purchase requisitions are submitted to the Division of Materiel (referred here-on-in as 'Materiel') and must contain information on the intended use of or necessity for the items/services being requisitioned. Detailed technical specifications must also accompany any formal purchase requisition, including a description of the minimum acceptable technical requirements for the material. Other supporting information must also be supplied, such as drawings, part numbers and any required inspections/maintenance.

When necessary (emergency use, items not available in storeroom, etc.) procurement cards can be used to purchase necessary items. Approval is required before purchases are made and submitted to Procurement.

Each NYCT division has designated personnel authorized to approve requisitions for purchases. Purchase requisitions are kept on file with the Materiel and Technology Services unit which reviews all purchase requisitions for proper authorization before such requisitions can be processed.

Procuring Chemicals/Hazardous Materials

The process for procuring new chemical commodities follows additional requirements (to those outlined above) and is designed to preclude the introduction of unauthorized hazardous materials and supplies. The process is detailed in Chapter II, Section H of NYCT's *Material Policy Instruction Manual*. The critical steps involved in the process are summarized as follows:

1. New vendor product solicitations are referred to Materiel's Procurement subdivision (either operating or capital) who informs the vendor of NYCT's procedures and required forms, including the documents required in order to start the evaluation process for new chemical items. Once received, the documents are then forwarded to the user department/division for review and to determine whether or not the product complies with user specifications.

2. The user will submit vendor data, including results from any laboratory/field testing to the Office of System Safety (OSS) for 'Product Safety Review'. As discussed in Section 19, OSS is responsible for reviewing chemical commodities that are being considered for purchase by NYCT user departments/divisions.

3. OSS provides a written 'Product Safety Review' to the user indicating if there are any occupational hazards or safety measures required for the use, handling, storing and (eventual) disposal of the chemical product that is being considered.

4. The user then tests the product to evaluate performance and safety aspects.

5. If the product passes all testing and has been approved, it may be presented to the Qualified Product List (QPL) Advisory Committee for review if there are other potential NYCT users. If the product is not to be set up as a QPL listing, then it is set up as a procurable item in the stock catalog.

6. Materiel's Logistics subdivision ensures that departments do not purchase chemical commodities without obtaining authorizing signatures from the Department's Chemical Safety Representative and from NYCT's Office of System Safety.

Quality Control and Assurance

NYCT utilizes the material inspection process as a quality control measure to preclude the introduction of defective or deficient equipment into the system. Material inspection helps ensure that products provided by vendors conform to NYCT's technical specifications. Materiel's Vendor Relations unit manages the division's inspection program and reviews any requests to deviate from required inspections. NYCT's Stock Catalog indicates which commodities require inspection. Most material inspections are carried out by contractors at the factory and prior to shipment to NYCT.

Quality assurance pertaining to railcar equipment is conducted by the Department of Subways' Division of Car Equipment (DCE). DCE's Quality Assurance (QA) & Warranty Control (WC) subdivision provides the following services relating to procurement activities:

- Material inspection services for incoming material to verify compliance with purchase order specifications, drawings, and other requirements.

- Auditing of suppliers of major new or repaired/refurbished major train components to determine compliance with contractual quality assurance requirements.

- Warranty administration services for new subway cars.

6.6 Continuous Improvement

This subsection describes the process for assessing safety performance and the process for developing and carrying out plans to address identified safety deficiencies.

6.6.1 Safety Committee

The Safety Committee identifies deficiencies in the transit agency's performance against annual safety performance targets and safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended.

6.6.2 Office of System Safety

The OSS developed a Safety Executive meeting, which is conducted to review safety key performance indicators as well as discuss any high priority safety related items. The meetings are co-chaired by the President and the Senior Vice President of Safety and occur once a month.

For the meetings, OSS compiles data on the following: customer accidents; employee LTA; confirmed subway fires; mainline/yard collisions; mainline/yard derailments; and collisions with individuals. The data is provided to the senior staff in rolling annual, year over year, and month over month data format for the three previous years.

6.6.3 Signals

Signal inspection, maintenance and testing reports are generated and reviewed by management every week. These reports along with recommended actions to address identified safety deficiencies are also being discussed in Signal Management bi-weekly meetings.

6.6.4 Elevators and Escalators

Elevator and Escalator Supervisors have a Daily Toolbox Talk, fill out the Supervisory Checklist, perform field visits and submit STOP Cards. Managers go out on Field Inspections and have Joint Management and Union Monthly Safety Meetings. Supervisors and Managers review Preventative Maintenance Checklist. Elevators and Escalators employees also perform ASME inspections on Elevators and Escalators.

6.6.5 Station Environment & Operations

In accordance with the most recent version of Policy Instruction 10.30, Division of Stations conducts monthly Safety Committee meetings. The committee meeting attendees consists of Station's Senior Staff, GSM's, Union Officials, and DOS Safety Unit.

The following topics discussed/reviewed include:

- Injuries and Vehicle Accidents (details of the incident, root cause, corrective actions, safety risk mitigations, recommendations, and any associated positive/negative trends)
- Operational Bulletins/Notices/Safety Advisories
- STOP Cards (Safe Acts Observed/Actions to Re-enforce Safe Acts and Prevent Unsafe Occurrences)
- Local Monthly Safety Walk Through

GSM's supervisors review the EAM database related to non-conformities inputted on a daily basis. Maintenance Supervisors use the information collected to prioritize and schedule work based on the criticality as well as scheduled completion dates.

6.6.6 Track

Department of Track conducts scheduled Monthly Staff meetings. Department managers (all tours) and union representatives attend all staff meetings. The current "Safety Bulletins and Advisories" are read and a discussion of their topic is discussed. Input about job site safety and or facility safety concerns are encouraged. Safety issues brought forth are discussed and efforts for remediation are discussed and implemented as required. After the staff meeting a field visit to a safety concern site maybe be convened to review and survey a means of remediation of the condition or issue. Track department managers conduct field visits at working locations. On site safety, discussions between supervisors and maintainers are conducted regularly. Management reviews supervisor Field Reports. Management addresses any safety concern listed in a field report.

6.6.7 Staten Island Railway

In accordance with the most recent version of Policy Instruction 10.30, Staten Island Railway conducts monthly Safety Committee meetings. The committee meeting attendees consists of SIR Officials (Vice President and Chief Officer, Senior Staff, and Departmental Managers/Supervisors), Union Officials, and the Office of System Safety (OSS). The following topics discussed/reviewed include:

- Current Injuries and Vehicle Accidents (details of the incident, root cause, corrective actions, safety risk mitigations, recommendations, and any associated positive/negative trends)
- Operational Bulletins/General Notices/Safety Advisories
- Safety Activity Cards (Safe Acts Observed/Actions to Re-Enforce Safe Acts and Prevent Unsafe Occurrences)
- Safety Culture Observations Team (SCOT) Monthly Observations
- Local Monthly Safety Walk Through
- Joint OSS Track Safety Audits

6.7 Drug & Alcohol Program

6.7.1 Overview

New York City Transit is committed to operating and maintaining an alcohol-free and drug-free workplace to provide a safe environment for its passengers and employees. NYC Transit policies, consistent with federal and state law, prohibit all employees from using, possessing or being under the influence of alcohol during an employee's tour of duty, while an employee is on NYC Transit's premises or otherwise engaged in NYC Transit business and/or when such use would make them unfit to report for duty or to be on duty. NYC Transit policy prohibits the unlawful manufacture, distribution, dispensation, possession or use of controlled substances at the workplace. In addition, the unlawful use of any drug or controlled substance at any time is also prohibited. NYC Transit requires all employees to abide by the terms of these policies as a condition of employment. Violation of the alcohol, drugs and controlled substance policies is considered to be a major offense. Employees who violate these policies will be disciplined, with punishment up to and including termination from employment. NYC Transit performs drug and alcohol tests of employees who perform safety-sensitive functions pursuant to Federal Transit Administration regulations. All NYC Transit employees are subject to drug and alcohol testing in additional circumstances pursuant to internal policy and/or collective bargaining agreements. In addition, it is the policy to provide eligible employees the opportunity to rehabilitate themselves by use of counseling services.

6.7.2 Drug and Alcohol Policy/Instructions

The Department of the Executive Vice President issues the most recent versions of: P/I 4.24 *Drugs and Controlled Substances* and P/I 4.13 *Alcohol*. These Policy/Instructions are followed by the Department of Subways.

To ensure employees receive knowledge of the aforementioned P/I's the hourly employees are provided with a 2-hour and supervisors are provided with a 4-hour substance abuse training course during induction training. In addition, this information is available on the NYCT intranet MTA Today and copies of the policies are available from management.

The following is a summary of the most recent version of P/I 4.24 *Drugs and Controlled Substances*

- Defines policy to prohibit use of drugs or controlled substances including marijuana
- States purpose of the P/I to set forth the policies and procedures for possession or use of drugs or controlled substances including marijuana
- Defines the scope of the P/I, the employees, and the Authority
- Defines controlled substances, drugs, marijuana, and medical authorizations
- Outlines employee's responsibility to report use or possession of any controlled substance, drug or substance which may impair job performance and to provide medical evidence of authorization upon request
- Outlines when testing for drugs and controlled substances shall be performed and consequences for refusing testing
- Lists the consequences for testing positive for the use of drugs/controlled substances depending upon various circumstances
- Describes the procedures for having re-testing of a positive finding by a second laboratory
- Provides the parameters for participating in the Employee Assistance Program (EAP)
- Defines the requirements for an employee to be restored to duty

The following is a summary of the most recent version of P/I 4.13 *Alcohol*

- Defines policy to prohibit the possession and consumption of alcohol on Authority property
- States purpose of the P/I to set forth the policies and procedures for the possession and consumption of alcohol
- Defines the scope of the P/I, the employees, and the Authority
- Defines the level of blood alcohol test (0.05 gm/dl or greater) or breath analysis test (0.02 gm/dl or greater) required to result in a positive finding and defines Authority property
- Outlines when testing for alcohol shall be performed and consequences for refusing testing
- Lists the consequences for testing positive for the alcohol consumption depending upon various circumstances.
- Describes the procedures for having re-testing of a positive blood alcohol finding by a second laboratory
- Provides the parameters for participating in the Employee Assistance Program (EAP)
- Defines the requirements for an employee to be restored to duty

6.7.3 Post Accident/Incident Drug and Alcohol Testing Policy/Instructions

The most recent version of Policy/Instruction 5.7 *Post Accident/Incident Drug and Alcohol Testing* was developed to assure appropriate post-accident/incident drug and alcohol testing for safety sensitive employees as required by the regulations of the Federal Transit Administration (FTA). In addition, the Policy/Instruction covers post incident testing for non-FTA covered employees. Employees of Contractors, who perform safety sensitive functions, as defined by federal regulations, are subject to those regulations, which govern post-accident drug and alcohol testing, and are also subject to Authority oversight for compliance with the federal regulations.

The purpose of this P/I is to set forth the procedure to be used for the timely collection of specimens and/or administration of tests for drugs and alcohol as mandated by FTA regulations as provided in the most recent versions of P/I 4.24 *Drugs and Controlled Substances* and P/I 4.13 *Alcohol*.

6.7.4 Fitness for Duty

The NYC Transit Rules and Regulations prohibit employees from using or possessing alcoholic beverages during their tours of duty and from using such beverages off duty when such use would make them unfit to report for duty or to be on duty, Rule 11(a); and/or using or possessing controlled substances, Rule 11(b). DOS Supervisors must determine if the DOS employees that report to work under their supervision are fit for duty or exhibit conditions such as red/bloodshot, glassy eyes, blank stares, jerky movement or pinpointed or dilated pupils, has the odor of an alcoholic beverage; uses incoherent speech or is staggering or exhibits unusual behavior.

In addition, an FO Manager from each Line will conduct a Fitness for Duty check once a month.

Employees suspected of being unfit for duty shall be directed to submit to a breath alcohol test and/or blood-alcohol test if applicable. Employees failing to submit to such examination shall be subject to immediate suspension and disciplinary action in accordance with applicable labor agreements and/or policy instructions and/or statutes and/or governmental regulations.

6.7.5 Staten Island Rail Drug & Alcohol Policy and Fitness for Duty

Employees are prohibited from using or possessing alcoholic beverages during their tours of duty and from using such beverages off duty when such use would make them unfit to report for duty. An employee shall be presumed to be in an unfit condition if they exhibit~~s~~ alcoholic breath, incoherent speech, or staggering. Employees suspected of drinking alcoholic beverages before or during their tours of duty shall be directed to complete a blood-alcohol examination by SIRTOA Medical Division. Employees failing to comply with such examination shall be subject to immediate suspension and disciplinary action in accordance with applicable labor agreements and/or SIRTOA policy.

Employees are prohibited from using or possessing controlled substances including, but not limited to, narcotics, tranquilizers, marijuana, drugs of the amphetamine group, barbiturate derivatives, or paraphernalia used to administer such controlled substances at any time, whether on or off SIRTOA property, except upon lawful medically provided prescription. All employees are

required to notify SIRTOA Medical Services Division of their prescribed drug use; in addition all employees must receive written consent of the Assistant Vice President of Medical Services, in accordance with applicable labor agreements and/or SIRTOA policy that such stated drug use is permissible on/off SIRTOA property. Employees are under an affirmative obligation to report to the SIRTOA Medical Services Division their use or possession of any Controlled Substances.

Employees may be required to submit to breath and/or urinalysis testing for alcohol or drugs after certain accidents or incidents, or when required by FTA regulations or SIRTOA policy.

Failure to report as directed for an alcohol and/or drug test, or a failure to complete alcohol and/or drug test, shall be considered as a "refusal" and the employee will be subject to immediate suspension and disciplinary action, in accordance with applicable labor agreements and/or SIRTOA policy.

In accordance with SIR General Notice 06-21 (Duties and Responsibilities Regarding Fitness for Duty) Train Dispatchers, Supervisors and Managers must check all SIR employees for Fitness for Duty when SIR employees report for duty. In addition, Supervisors and Managers will frequently check employees during their tour, in regard to their "Fitness for Duty". Supervisors and Managers must not permit employees to work it they are suspected of being unfit for duty. All employees who appear unfit for duty must be removed from service immediately and ordered to undergo a drug and alcohol test. If an employee is observed "unfit for duty" it must be immediately reported to the Operations Control Center dispatcher [Rule 3.7, Rule 3.9]. Employees failing to submit to such examination shall be subject to immediate suspension and disciplinary action in accordance with applicable labor agreements, policy instructions, statutes and/or governmental regulations.

6.8 Workplace Violence Prevention Program - (Transit Worker Assault Prevention and Response)

6.8.1 Overview

In fulfillment of the Y2006 NYS Workplace Violence Prevention law, New York City Transit created a multi-faceted Workplace Violence Prevention Program (WVPP). By legal mandate, this program is comprised of a number of required documented elements in fulfilment of the NYS law. The NYCT WVPP is auditable by the NYS Department of Labor. As the centerpiece of this program, MTA/NYCT issued the most recent version of its official WVPP in Policy Instruction #1.20.0. While NYCT Security largely manages the program requirements through VP/SVP designated WVPP Departmental Liaisons, all NYCT departments are stakeholders in the program's success -- in particular, NYCT Subways, Buses, Law, Office of System Safety, Central Labor Relations and Human Resources.

The NYS Workplace Violence Prevention program begins with PREVENTION and carries through to workplace violence post-incident review and analysis. The overarching goals of the NYCT Workplace Violence Prevention Program are the:

- Identification of "risk factors" in the workplace that could engender workplace violence incidents

- Proactive application of “reasonable” mitigations as countermeasures to identified risk
- Sharing of pattern/trend information on consummated workplace violence incidents with NYCT employees, particularly those potentially impacted
- Engagement of law enforcement officers to apprehend workplace perpetrators
- Engagement of the MTA Law Department to liaise with NYC prosecutors in the successful conviction and incarceration of workplace violence offenders.

NYCT maintains a zero-tolerance policy toward all forms of workplace violence and NYCT does not tolerate any act of violence in our system. Assaults on transit workers are crimes and immediately responded to by the appropriate internal and external departments following the guidelines outlined in the WVPP.

The most recent version of the Workplace Violence Prevention PROGRAM Policy Instruction #1.20 is followed by the Department of Subways.

6.8.2 Transit Worker Assault Prevention (Workplace Violence Prevention)

NYCT is committed to providing a safe working environment for all employees, including access to secure spaces in our system, where feasible. NYCT continuously explores options to improve availability of such spaces such as access to areas located away from the public, locked and/or isolated operating cabs, and secure break rooms to improve the assault protection in existing equipment/infrastructure.

NYCT provides all of its customer-facing employees with regular de-escalation training. This training is recurrent on a regular basis and provides workers the opportunity to practice de-escalation skills.

Employee parking lots, station platforms, and other common areas transited by NYCT employees are constantly evaluated for security mitigations such as adequate lighting and security cameras where indicated by security surveys. As new facilities are constructed and come on-line, NYCT is committed to ensuring employee safety is a core tenet of the design and functionality of the facility.

Operators and conductors who feel at risk of imminent assault are instructed to contact dispatch through a radio line to dispatch. Station agents, cleaners, track workers, and other workers in the subway system who do not have access to a radio to dispatch are instructed to contact their supervisor and/or respective command center through a dedicated phone line. Other forms of communication, such as the Emergency button on station platform Help Points are also available to employees. Dispatchers, phone operators, and other staff receiving these calls are trained to immediately address threats before returning to other work by directing law enforcement to the location and helping the threatened worker find a safe space.

NYCT in conjunction with MTA Legal, is pursuing a policy of excluding violent individuals from the system, as well as those likely to assault workers based on past recidivist behavior.

6.8.3 Transit Worker Assault Response

As dictated by the NYCT WVPP policy, following any act of workplace violence, including assault, law enforcement authorities are immediately notified. Employee victims of workplace violence are provided with the time necessary to work with law enforcement as well as to recover from the incident. NYCT Security will prepare and disseminate NYCT Security Alerts of individuals wanted for workplace violence in order to sensitize and galvanize all employees for general awareness and engagement. NYCT fully cooperates with all law enforcement actions to apprehend and prosecute perpetrators of workplace violence against transit workers. Such actions include directly liaising with the assigned police detective-investigators and the review of any associated CCTV video of alleged incidents to assist law enforcement and prosecutors in timely arrests and successful prosecutions.

The NYCT department responsible for the worksite where an act of workplace violence occurs, including assault, assists the Department of Security in its evaluation of each incident to determine what countermeasures or mitigations may be beneficial to lower the risk of a reoccurrence.

Notifications of workplace violence incidents are communicated in near-real-time through various NYCT Command Centers. These include email notifications to NYCT leadership and designated department-level WVPP Liaisons. Following an assault, union representatives provide counsel to employee-victims prior to any interview with Safety and Security or other management representatives. The Safety Committee is provided a regular summary report, at least quarterly, of all employee assaults in the system.

6.8.4 Workplace Violence Prevention Program (P/I 1.20.0)

MTA NEW YORK CITY TRANSIT
POLICY/INSTRUCTION

Workplace Violence Prevention Program	Classification General	1/08/15	Number 1.20.0

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ATTACHMENTS

Workplace Violence Prevention Program	Classification General	1/08/15	Number 1.20.0

1.0 POLICY

It is the policy of MTA New York City Transit, including the Manhattan and Bronx Surface Transit Operating Authority ("MaBSTOA") and Staten Island Rapid Transit Operating Authority ("SIRTOA"), hereinafter collectively referred to as "NYC Transit" or "NYCT," to evaluate its workplaces and determine risk factors for workplace violence and to develop procedures to reasonably prevent or minimize the potential for such violence, including, when necessary, working with law enforcement to effectively prosecute cases where NYC Transit employees are victims of workplace violence. Threats, threatening behavior, or acts of violence against employees or anyone on Authority property will be thoroughly investigated and appropriate action will be taken, including summoning the police, where warranted. **All employees** are responsible for immediately reporting instances of workplace violence to their immediate supervisor or manager. Threats, assaults, or acts of violence that require immediate attention must be reported to the police at 911.

2.0 PROGRAM COMPLIANCE

The New York State Department of Labor requires that a Workplace Violence Prevention Program include the following elements:

1. A list of the risk factors identified in the workplace examination.
    a. *Identified risk factors resulting from all physical site surveys (i.e., workplace evaluations) of NYCT workplaces will be entered into the Workplace Violence Database. This database will be the central repository for listing site-specific risk factors.*

2. The methods the employer will use to prevent the incidence of workplace violence incidents.
    a. *Methods to prevent or reduce incidents will vary, depending on the nature of the specific incident, but may involve personnel training, repair of infrastructure, installation of new or additional security technology/equipment, physical hardening/engineered modification of the worksite, or a combination of these measures.*

3. A hierarchy of controls to which the program shall adhere as follows: engineering controls, work practice controls, and finally personal protective equipment.
    a. *By application of the MTA and NYCT official security strategy of "Defense in Depth," a layered approach to reducing worksite risk*

factors will be used. With layering, a combination of one or more synergized safeguards reinforces the other(s), as needed.

4. The methods and means by which the employer shall address each specific hazard identified in the workplace evaluation.
    a. *Each department head shall be responsible for ensuring physical site surveys are completed and timely and that reasonable corrective measures are applied to specifically identified risk factors. Authorized Employee Representatives ("AER"), defined in Section 4.4, will be invited to participate. An Executive Coordinating Committee will oversee program compliance.*

5. A system designed and implemented by the employer to report any workplace incidents that occur in the workplace. The reports must be in writing and maintained for the annual program review.
    a. *Workplace incidents as well as other security-related incidents are reported in the computerized Security Incident Tracking System ("SITS") database in accordance with NYCT Policy Instruction #1.14.0 of 02/16/10. This is a mandated reporting protocol.*

6. A written outline or lesson plan for employee program training.
    a. *This material will inform, educate and sensitize employees to bolster their knowledge and aid in the prevention of workplace violence, starting with the identification of some typical examples of workplace violence "risk factors," mitigation strategies, and measures for protection.*

7. A plan for program review and update on at least an annual basis. Such review and update shall set forth any mitigating steps taken in response to any incident of workplace violence.
    a. *An Executive Coordinating Workplace Violence Prevention Committee, comprised of the NYCT President's senior staff or their respective designees, will be responsible for the annual review and update of the program as well as the examination of any incident of workplace violence and ensuring mitigation steps in response. AERs will be invited to participate.*

Workplace Violence Prevention Program	Classification General	1/08/15	Number 1.20.0

3.0 PURPOSE

The purpose of this Policy Instruction is to:

3.1 Establish and constitute the Workplace Violence Prevention Program for NYCT as required under the New York State Workplace Violence Prevention Act ("WVPA"), N.Y. Labor Law §27-b, and the implementing regulations of the New York State Department of Labor, 12 N.Y.C.R.R. 800.6. To this end, this Policy Instruction:

3.1.1 Establishes an Executive Coordinating Workplace Violence Prevention Committee to oversee and direct NYCT's workplace violence prevention efforts through effective and efficient use of NYCT resources.

3.1.2 Establishes procedures that will ensure compliance with the WVPA.

3.1.3 Establishes responsibilities for the development and enforcement of NYCT's Workplace Violence Prevention Policy.

3.1.4 Establishes procedures that will ensure the early identification and reasonable mitigation strategies for minimizing workplace violence.

Workplace Violence Prevention Program	Classification General	1/08/15	Number 1.20.0

4.0 DEFINITIONS

4.1 **Workplace Violence** is defined by DOL as "any physical assault or acts of aggressive behavior occurring where a public employee performs any work-related duty in the course of his or her employment." "Physical assault or acts of aggressive behavior," in turn, is defined by the DOL to include, among other things, attempts of threatening behavior, whether physical or verbal, or intentional display of force, or non-consensual intentional or wrongful physical contact, or stalking with intent to cause fear of material harm to another in the workplace.

4.2 **Workplace** is defined by the DOL as "[a]ny location away from an employee's domicile, permanent or temporary, where an employee performs any work-related duty in the course of his or her employment by an employer."

4.3 **Risk Factors** are defined by the DOL as employment situations that may present higher risks of workplace violence, although workplace violence may occur in any workplace setting.

4.4 **Authorized Employee Representative** ("AER") is defined by the DOL as "[a]n employee authorized by the employees or the designated representative of an employee organization recognized or certified to represent the employees pursuant to Article 14 of the Civil Service Law."

4.5 **Security Incident Tracking System** ("SITS") is a NYCT-wide, intranet based, database used for documenting and recording security incidents provided for in NYCT Policy Instruction # 1.14.0, dated 02/16/10.

4.6 **Workplace Violence Prevention Program**, pursuant to the DOL regulations, is "[a]n employer program designed to prevent, minimize and respond to any workplace violence, the development and implementation of which is required by Article 2, Section 27-b of the New York State Labor Law."

4.7 **Workplace Violence Prevention Departmental Liaison** is a senior level manager designated by each Department Head to serve as the central point of contact for that specific department, to help ensure its compliance with all Workplace Violence Prevention policy/program requirements. This individual will maintain communication with the Department of Security

and the Executive Committee, as necessary, thereby facilitating resolution of issues.

4.8 **Workplace Violence Database** is a NYCT-wide, intranet-based computer program utilized for documenting and recording applicable, site-specific risk factors. It features design elements for worksite customization to reflect the diverse work environment of NYCT locations. Tracking Reports will be generated from the Database to ensure compliance with the program and timely resolution of issues.

4.9 **Executive Coordinating Workplace Violence Prevention Committee** is the group responsible for the oversight of the Workplace Violence Prevention Program and shall be comprised of the President's Senior Staff or their respective designee(s). The Chair of the Executive Coordinating Committee shall be the Vice President, Department of Security. The Vice President, Department of Security, shall also serve as Technical Advisor to the committee.

Workplace Violence Prevention Program	Classification General	1/08/15	Number 1.20.0

5.0 RESPONSIBILITIES

5.1 The Executive Coordinating Workplace Violence Prevention Committee shall meet at the direction of the Chair of that committee, but not less than annually.

A. The Executive Coordinating Workplace Violence Prevention Committee shall be responsible for the following:

1. Defining NYCT's overall goals on Workplace Violence Prevention.
2. Monitoring compliance with the goals spelled out in this policy and ensuring that decisions made by this committee are implemented.
3. Resolving outstanding critical Workplace Violence Prevention issues forwarded by Departments.
4. Reviewing Human Resources Training lesson plans and curriculum.
5. Reviewing Workplace Violence Prevention statistics and possible patterns.
6. Instituting a plan for the review and update, if necessary, of the Workplace Violence Prevention Program and its seven (7) elements (see Section 2.0, Program Compliance), including Physical Site and Administrative Risk Factor reviews, on at least an annual basis. Such review and update shall set forth any mitigating steps taken in response to any incident of workplace violence.

B. The NYCT Departments listed below shall have the following responsibilities:

1. **Department of Security** shall, working in consultation with the Department of Law, the Office of System Safety, and the Office of Labor Relations, be responsible for annual review of NYCT's written Workplace Violence Prevention Program relating to risk factors. AERs will be invited to participate in this annual review process.

   a. The Department of Security shall also be responsible for providing subject matter expertise in the areas of threat, vulnerability and risk analysis, and vulnerability mitigation, as well as coordinating with MTA Information Technology (IT) on developing a database to track vulnerabilities/risk factors and the corresponding implemented mitigations as identified and reported by each department.

   b. The Department of Security will maintain dialogue and communication with each Department's Workplace Violence Prevention Liaison, as designated by the Department Head.

   c. The Department of Security will produce Workplace Violence Prevention Database Tracking Reports, tracking and identifying open items (vulnerabilities/risk factors) for action and resolution by the Executive Committee.
   i. Workplace Violence Prevention Database Tracking Reports will be forwarded from Security to the:
      1. Departmental Liaison; and
      2. Executive Coordinating Workplace Violence Prevention Committee.

   d. The Department of Security will produce statistical reports of Workplace Violence incidents as reported by employees through the Security Incident Tracking System (SITS – NYCT Policy Instruction # 1.14.0, dated 02/16/10.).

i. Such statistical reports will be forwarded from Security to the:
   1. Departmental Liaison; and
   2. Executive Coordinating Workplace Violence Prevention Committee.

2. **Office of Labor Relations** is responsible for the Workplace Violence Prevention Policy Statement and ensuring that the policy is posted where notices to employees are normally posted (Appendix A).

3. **Department of Law** shall provide legal counsel in the preparation of the Workplace Violence Prevention Program and, if necessary, the annual updating of same.

4. **Division of Human Resources**, upon completion of the Workplace Violence Prevention Program, shall be responsible for the following:

   a. **Informing Employees:** Providing and implementing a training program in compliance with DOL Regulations, including providing employees with information regarding the following:

      (1) NYCT's requirements under the WVPA;

      (2) typical risk factors identified in employees' workplaces and measures an employee can take to protect himself/herself; and updating lesson plans to incorporate information on new or unique risk factors as communicated by Department Heads; and

      (3) location and availability of NYCT's written Workplace Violence Prevention Program and Workplace Violence Prevention Policy Statement.

   b. **Employee Training** shall take place at the time of the employee's initial assignment and annually thereafter. Additionally, information shall be provided to affected employees whenever significant changes are made to NYCT's written Workplace Violence Prevention Program.

5. **MTA Information Technology (IT) Department** shall develop a web-based database featuring design elements for worksite customization, working with all Departments, to ensure data entry access rights as well as to provide technical support in resolving database issues. Working with the Department of Security and the Office of System Safety, create reports to satisfy all State reporting requirements.

6. **Office of System Safety** shall share, for comprehensiveness, security-related data it collects with the Department of Security.

5.2 Each Department Head shall be responsible for the following:

1. Ensuring that Local Staff (managers and supervisors) are immediately investigating and reporting on all incidents of workplace violence in their workplaces in accordance with Security Incident Tracking System Policy Instruction # 1.14.0. After taking initial steps to ascertain what occurred and identify potential witnesses, local management in consultation with Labor Relations, should determine whether the workplace violence incident is of such a nature that it should be referred to the Special Investigations & Review Division for investigation. Special Investigations & Review will retain final decision making authority as to whether it will investigate the referral.
2. Designating a Workplace Violence Prevention Departmental Liaison to serve as the overall Department's central point of contact to ensure compliance with all policy/program requirements.
3. Ensuring that physical site surveys are conducted and documented, per departmental procedure, including documented invitations for AER participation. Documented site evaluations are required at newly acquired, or newly constructed, facilities, stations, railcars and buses per departmental procedure. Site survey locations must be revisited if there is a significant change in workplace characteristics or if there is a significant increase in the frequency or occurrence of workplace violence at a particular site.

Note: For NYCT administrative buildings containing multiple departments and units, which do not possess a single,

unified hierarchy for local and departmental committee chain of review (e.g., 2 Broadway and 130 Livingston Street), the Department of Security will assist the building management as it conducts the physical site, risk factor / vulnerability assessments. Space Management/Facilities is the NYCT point of contact for all leased property. Together with MTA Real-Estate, Space Management/Facilities will coordinate corrective risk factor mitigations / counter measures.

4. Ensuring that all required information is entered into the Workplace Violence Prevention Database by the appropriate personnel.
5. Ensuring that reasonable, corrective measures for identified risk factors are implemented. The following are examples of controls that may be considered in prescribing corrective measures: employee training; engineering design modifications; equipment issuance, e.g. flashlights, etc.
6. Ensuring that Workplace Violence Prevention employee training takes place at the time of the employee's initial assignment and annually thereafter.
7. Ensuring that unique or unusual risk factors that have been identified are communicated to the Department of Security and the Division of Human Resources.
8. Meeting semi-annually with appropriate managers to review Workplace Violence Prevention reports, and outstanding issues that have yet to be addressed and closed in the system.
9. Meeting with the AER annually to review and discuss workplace violence incident statistics, trends and/or patterns (i.e., "annual records review") as reported through the Security Incident Tracking System.
10. Summarizing the discussions outlined above (items 6-7) for the Executive Coordinating Workplace Violence Prevention Committee on an annual basis.

5.3 **Managers and Supervisors** shall, with respect to incidents involving workplace violence, be responsible for the following:

1. Immediately commencing the appropriate steps to address all allegations of workplace violence;
2. Immediately notifying internal and external entities, through established procedural protocols, as appropriate, e.g. immediate chain of command supervisor/manager, law enforcement authorities, etc.;
3. Implementing stopgap measures to mitigate any immediate reoccurrence;
4. Preparing and forwarding appropriate documentation, e.g. SITS report;
5. Recommending to senior management through chain-of-command any actions to mitigate any future reoccurrence involving subject employee(s), e.g. counseling, training, disciplinary action, etc.

5.4 **All Employees** shall immediately report instances of workplace violence to their immediate supervisor or manager as well as follow any individual departmental notification procedures.

Note: Many of the responsibilities outlined above include the gathering and transmittal of different kinds of information. Please note that, with respect to the disclosure of information, the NYS DOL Regulations regarding Workplace Violence Prevention Programs do not require employers to disclose in their Programs any information kept confidential for security reasons (e.g., non-routine investigative techniques, anti-terrorism measures, confidential sources, information that endangers the life or safety of any person) or privacy concerns (e.g., injury resulting from a sexual assault or from contaminated or potentially hazardous materials, mental illness, HIV infection).

5.5 No employee shall be discharged, suspended, demoted, penalized, or discriminated against or shall suffer from an adverse employment action in the terms and conditions of his/her employment because he/she has reported an incident or incidents of workplace violence.

Workplace Violence Prevention Program	Classification General	1/08/15	Number 1.20.0

6.0 ATTACHMENTS

Appendix A: Workplace Violence Prevention Policy Statement (posted where notices to employees are normally posted)

Appendix B: Workplace Violence Prevention Policy/Program *"Physical Site Survey and Best Practice/Policy Controls – Generic Checklist"*

7.0 REFERENCES

Security Incident Tracking System (SITS) NYCT Policy Instruction # 1.14.0, dated 02/16/10.

Carmen Bianco
President

Date: 1.8.15

Appendix A

WORKPLACE VIOLENCE PREVENTION POLICY FOR THE NYC TRANSIT AUTHORITY, MANHATTAN AND BRONX SURFACE TRANSIT OPERATING AUTHORITY, AND STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY

The New York City Transit Authority, Manhattan and Bronx Surface Transit Operating Authority, and Staten Island Rapid Transit Operating Authority (collectively, "the Authority") policy is to promote a safe environment for all employees. Workplace violence presents a serious occupational safety hazard to employees. Threats, threatening behavior, or acts of violence against employees or anyone on Authority property will be thoroughly investigated and appropriate action will be taken, including summoning the police, where warranted. All employees are responsible for helping to create an environment of mutual respect for each other, following all policies, procedures and program requirements, and for assisting in maintaining a safe and secure work environment.

This policy is designed to meet the requirements of New York Labor Law, Section 27-b, which requires a public employer, such as the Authority, to evaluate its workplaces to determine the presence of risk factors that may result in workplace violence to its employees, develop and implement a written Workplace Violence Prevention Program, as well as provide employees with information and training on the risks of workplace violence in its workplaces. In going about this process, the Authority will establish a committee or task force made up of management and Authorized Employee Representatives (AERs), who will have an ongoing role of participation in the evaluation process, as well as recommend methods to reduce or eliminate the hazards identified during the process. AERs will also have an input in the written Workplace Violence Prevention Program, as well as participate in the annual program review, including a review of incident reports. Also, all employees will participate in the annual Workplace Violence Prevention Training Program that the Authority will provide.

The Authority does not tolerate any act of violence and will continue to strictly enforce a "zero tolerance" policy on workplace violence. As has always been the case, any report of violence will be taken seriously and handled appropriately. Threats, assaults, or acts of violence that require immediate attention should be reported to the police at 911. Employees are to inform a supervisor or manager or the appropriate Command or Control Center (Bus Command Center [at 718-927-7777], Rail Control Center [at 212-712-4480], Security Command Center [at 718-694-4278], and SIRTOA Control Center [at 718-876-8302]) if they observe or experience violent, threatening, harassing, intimidating, or other disruptive behavior by anyone on Authority property that does not require immediate attention.

The Authority's Department of Security maintains a record of all such incidents as part of the Authority's Security Incident Tracking System (SITS) program (Policy Instruction No. 1.14.0). A supervisor or manager who receives a report of workplace violence should interview the employee making the report, make required notifications, and prepare a Security Incident Reporting Worksheet ("Worksheet"). The current version of the Security Incident Reporting Worksheet, and instructions for preparation, are posted on the Authority's intranet on the Department of Security's webpage. The completed Worksheet should be forwarded to the appropriate department Command or Control Center for entry into the SITS database.

The Authority will record privacy concern cases in accordance with the provisions set forth in the Department of Labor regulations 12 NYCRR Part 800.6. For cases involving privacy concerns (sexual assaults, HIV infections, etc.), the Authority will remove the name of the victim and will enter the designation "Privacy Concern Case," in place of the victim's name, before sharing such report with anyone other than the Commissioner of the Department of Labor.

New York City Transit

Assessment Date: _____

Appendix B: Workplace Violence Prevention Policy/Program
Physical Site Survey and Best Practice/Policy Controls -- Generic Checklist

NYCT Dept./Div.: _____ Location: _____ NYCT Div. Liaison: _____

Facility Type: (Circle One) Yard, Depot, Shop, Subway Station, Office, Storeroom, Other (Specify)_____

WVPP Team (List Names & Dept./Div. and Name(s) of Authorized Employee Representative(s) in attendance):_____

_____

Instructions

This Checklist attempts to comprehensively list ALL of the engineering security controls and security practices and policy in possible use today. Use this Generic Checklist to document the PRESENT CONDITIONS ONLY at NYCT worksites.

ALL SECTIONS:

At any given NYCT worksite location, many of these items (in question format) may be "Not Applicable," requiring selection of "N/A" as a response. The Notes/Comments section may be filled out if "N/A" is marked for a given question, as deemed appropriate.

If a response is marked "NO" in a "YES/NO", "Present", or "FUNCTIONING" question, the NOTES/COMMENTS section MUST be filled out in order for this checklist to be successfully submitted through the VANDAM database (be sure to include the exact location and detailed description).

ADDITIONAL INSTRUCTION FOR SECTION I:

A Note/Comment is also optional if the question is marked both "Y" for "Present" and "Y" in the "Functioning" column.

Complete this Checklist ONLY after fully reading Page 1 Instructions. This generic Checklist is to document PRESENT CONDITIONS ONLY at NYCT worksites. Many items may be "Not Applicable," requiring selection of the "N/A" response.

I. Workplace Physical Site Survey	N/A	Present Y/N	Functioning Y/N	Notes/Comments
A. Engineering Controls				
1. Barriers to Separate Customers from Work Area?				
2. Bullet-Resistant Glass or Other Bullet-Resistant Barriers?				
3. Closed Circuit Television (CCTV)?				
a. CCTV Video Monitor(s)?				
b. CCTV Video Recorder(s)?				
4. Corner Mirrors for Blind Spot Reduction?				
5. Door Controls (mechanical locks, remote buzzers, panic bars)?				
6. Electronic Access Control (Card Readers "Swipes" for Doors)?				
7. Hand-held Video Camera?				
8. Intrusion Detection System (tripwire alarms for unauthorized entry)?				
9. Landscaping for Unobstructed Views?				
10. Metal Detector				
a. Handheld Metal Detector?				
b. Stationary Metal Detector?				
11. Open-Door Detectors (audible alarms)?				
12. Panic Button?				
13. Parking Lot/Garage Lighting?				
14. Perimeter Fencing (Specify in Notes: Chain Link: Expanded Metal/Mesh, etc.)?				
15. Personnel Traps (containment area between locked doors)?				
16. Secondary Exits?				
17. Traffic Arms?				
18. Unobstructed Windows To Allow Views of Interior (Limited Posting of Signs)?				

Complete this Checklist ONLY after fully reading Page 1 Instructions. This generic Checklist is to document PRESENT CONDITIONS ONLY at NYCT worksites. Many items may be "Not Applicable," requiring selection of the "N/A" response.

I. Workplace Physical Site Survey (continued)	N/A	YES	NO	Notes/Comments
B. Security Officers and/or Law Enforcement Coverage?				
1. If yes, is there an appropriate number to adequately cover this site?				
2. Indicate if they are:				
a. Outsourced Contract Guards?				
b. External Police Agency?				
c. NYCT Transit Property Protection Agents?				
3. Fixed Posts at all Entrances/Exits?				
4. Officers are Radio-Equipped?				
5. Roving Patrol(s)?				
6. Security Force received training in WVP situations?				
II. Workplace/Best Practices and Policy			NO	Notes/Comments
1. Access Control Alert Posting and Procedure?				
2. Canvassing of employees performed to ascertain their concerns?				
a. Do Employees Feel Safe?				
3. Work Areas Evaluated by Employer? (Specify Frequency in Notes)				
4. Desks maintained in an orderly fashion?				
5. Floor Plans Posted Showing Exits, Entrances, Location of Fire Extinguishers, AED device, etc.?				
6. Have employees been trained in an Emergency Action Plan, Evacuation Plan and/or a Disaster Contingency Plan?				
7. Workplace Violence Prevention Policy Posted by Employer?				
8. Emergency Numbers Posted by Phones?				
9. Employee Dismissal Procedure (Property Retrieval & ID Access Removal)?				
10. ID Badges Displayed (Employees & Visitors)?				
11. Internal Procedures for Conflict Situation Resolution?				
12. Key Control Procedures?				
13. Limit Spouse & Family Visits to Designated Areas?				
a. Visitor Access Control System?				
b. Visitor Escort Procedure?				
14. Parking Control Procedure for Employees, Contractors & Visitors?				
15. Reception Area Available?				
16. Telephone Systems with Active Voicemail?				
a. If yes, is there battery back-up or alternate power failure phones?				

Complete this Checklist ONLY after fully reading Page 1 Instructions. This generic Checklist is to document PRESENT CONDITIONS ONLY at NYCT worksites. Many items may be "Not Applicable," requiring selection of the "N/A" response.

General Comments:

Signatures:

Table of Contents

7 Safety Promotion

7.1 Competency and Training

7.1.1 Overview

Operations Training provides numerous training programs (approximately 350 individual courses) focusing on: occupational and environmental safety; emergency response; induction of new hires and promotions; legacy and millennial equipment; title-specific knowledge, and skill refreshers. Programs are developed in partnership with NYC Transit departmental management and where appropriate, other MTA agencies in response to mandates by Federal, State, and City entities.

Operations Training is organized into the following five training units, each responsible for specific training programs:

- **Safety and Emergency Response Training** develops and delivers training programs in the areas of occupational and environmental safety, FDNY certificate of fitness, emergency response and employee preparedness. The area is responsible for assisting NYC Transit management meet its safety goals and the standards set by OSHA, DOL, FDNY, FTA and other regulatory agencies.

- **Electrical and Stations Training** provides specialized theoretical and hands-on training to Signals, Power, Electronics, and Station Division personnel. Skills enhancement and refresher training are offered to improve personnel performance.

- **Track, Infrastructure, and Maintenance Support Training** is primarily responsible for training operating personnel in Divisions of Track, Infrastructure, and Facilities. Maintenance Support training (i.e., welding, powered industrial trucks, and forklift operation) and the Track Safety course are administered by this training unit.

- **Car Equipment Training** provides specialized theoretical and hands-on training to Car Equipment Division personnel. The unit provides required Car and Shop Safety training for employees of NYCT and external agencies including all contractor and consultant employees performing work in Overhaul and Maintenance Shops and associated support yards to these facilities. This unit also delivers the National Safety Council's Defensive Driving course for NYC Transit, as well as EPA Section 608 Refrigerant Handling Certification training and examination administration.

- **Service Delivery Operations Training** is responsible for training Field Operations and Station Environment Division personnel and conducts Subways Flagging training.

Track Safety training is required for employees of NYCT and any outside agency including all contractor and consultant employees performing work on or near NYCT tracks. Track Safety Refresher Training is required on a cycle set by the operating department, except for employees

that are required to attend the Track Flagging Refresher course. Individuals that successfully complete Track Safety training receive a qualification card with the expiration date.

Investigations

All employees that are responsible for the management process of investigations on behalf of the PTSB must be trained or working under the direct supervision of an individual who is trained to perform their functions in accordance with the Public Transportation Safety Certification Training Program as outlined Part 672.

Flagging

All employees who pick into a job title to perform flagging duties or are assigned to perform flagging duties must attend the flagging qualification training as outlined in the departmental Safety Training Matrix, Policy/Instructions, and/or other NYCT safety programs. Employees that successfully complete the flagging training are issued a qualification card that contains the expiration.

Track Flagging Refresher re-qualifies employees in flagging and track safety and is given as outlined in the departmental Safety Training Matrix, Policy/Instructions, and/or other NYCT safety programs. Re-qualification cards with the expiration date are issued to each employee that successfully completes the refresher training.

7.1.2 Employee Technical and Safety Training

The following is a description of the technical training (technical training matrices are in development by each department/division) and certification programs for employees provided by Operations Training and departments/divisions.

7.1.2A Electronics Maintenance

Employees hired should have a basic understanding of the principles of equipment maintenance. Maintenance courses are developed internally to provide specialized theoretical and hands-on training to Maintainers and Maintenance Supervisors for induction and promotion of employees. Employees also receive in-house technical training/refresher classes for specific equipment/systems after implementation of job Maintenance picks. Contractor provided training is administered as required.

The Electronic Maintenance Division ensures that employees receive the proper safety training in accordance with the Electronic Maintenance Safety Training Matrix.

7.1.2B Track

Track Induction Training includes three (3) titles in the Division of Track that receive induction training:

- Trackworker
- Track Equipment Maintainer
- Track Inspector

Promotion Training requires newly promoted Maintenance Supervisor Level I (MSI) employees to complete a course and practical training is administered as well.

Track/Infrastructure/Maintenance Support Training ensures that employees being hired into these positions receive the proper training to perform their functions by providing them with their required induction training modules, including the required training modules indicated in the Maintenance of Way Safety Training matrix which is verified by the department training liaison.

7.1.2C Infrastructure/Facilities

Induction Training requires that all maintainer titles hired by Infrastructure and Facilities receive induction training including:

- Lighting Maintainer
- Ventilation & Drainage Maintainer
- Heating & Ventilation Maintainer
- Transit Electrical Helper
- Structure Maintainer (A, B, C, D, E, F, G)

Promotion Training requires newly promoted MS1 Infrastructure/Facilities to complete a training course.

Track/Infrastructure/Facilities Support Training ensures that employees being hired into these positions receive the proper training to perform their functions by providing them with their required induction training modules including the required training modules indicated in the Maintenance of Way and Facilities Safety Training matrix which is verified by the department training liaison.

Track/Infrastructure/Facilities/ Support Training also provides a variety of ongoing courses for E&E, Hydraulics, HVAC and Lighting employees on the service and maintenance of associated electro-mechanical equipment.

7.1.2D Crane, Equipment, & Welding Training

Track/Infrastructure/Facilities/Maintenance Support Training provides training to qualify employees in all operating divisions that are required to perform a specific task that requires specialized training.

- Basic and Advanced Welding
- Crane and Heavy Equipment (Mobile and Overhead cranes, Front end Loaders, Boom Trucks, etc.)
- Miscellaneous Equipment (Powered Industrial Trucks, Personnel Lifts, etc.)

7.1.2E Elevator and Escalator

Track/Infrastructure/Maintenance Support Training provides training to qualify employees in all operating divisions that are required to perform a specific task that requires specialized training.

- Escalator and Elevator Induction
- Escalator Maintenance
- Restarting Escalators
- Principles of Troubleshooting

Escalator and Elevator (E&E) Induction course is a robust program that introduces participants to elevator and escalator features, parts, schematics, diagrams, and maintainer and departmental responsibilities.

This is a class that is designed for electro-mechanical maintainers and participants of the apprenticeship program.

- *Restarting Escalators:* The course is designed to introduce Station Agents, Division of Station Environment & Operating employees (Cleaners, Supervisors & Operations Managers) the concept of restarting escalators. At the end of the course participants will know the components of an escalator, the process for restarting an escalator and review the escalator incident investigation protocol.

  This is a class designed for Station Agents, Division of Station Environment and Operations Employees (Cleaners, Supervisors & Operations Managers)

- *Escalator Maintenance:* This is a course designed to focus on the escalator maintenance sheet and how maintenance should be performed. Upon completion of this course, the participants will be able to perform the required maintenance on various escalators in the NYC Transit system. The course covers the following topics: Introduction to the Escalator Maintenance Sheet, use of an Amp Probe and measuring tape and performing escalator maintenance.

  This is a course designed for Elevator & Escalator Division's Elevator and Escalator Maintainers, Transit Electrical Helpers and Transit Electrical Apprentices.

- *Principles of Troubleshooting:* This class is designed to provide an overview of the troubleshooting process along with related general strategies, tips, and pitfalls. The course reviews troubleshooting strategies given specific escalator and/or elevator problem.

  This is a course designed for Elevator & Escalator Division Maintainer employees as outlined in the divisional Safety Training Matrix.

7.1.2F Power (Electrical & Third Rail Operations)

Power Cable Maintainer training is a course with hands-on exercises including safety, duties and responsibilities, cable vault, cable duct designs, cable print reading, setting up, pulling, and hanging cables, working with lead and non-lead terminators, and splicing various cables. Classroom training is split evenly with practical fieldwork exercises.

Power Maintainer (Group B) Operations training has multiple classes on power substation equipment, high tension switching, rectifier start-up/shut-down and troubleshooting, generator movement and hook up, DC feeder breaker operation, print reading, meter applications, access & protection, local emergency control (LEC), substation inspections & maintenance and EA operations, in a classroom setting and hands-on out in the field, and System Operation Desk Operator training. If selected for System Operations, there is additional training on a divisional District Operator's position. In addition, Right-to-Know training is given as outlined in the departmental Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs.

There are various training courses offered at the Power Learning Centers that cover the aspects mentioned above as well as refresher courses for employees that may need reinstruction or for preparing for promotional exams to advance their careers.

Promotion training requires newly promoted MSIs (Signals) to complete course.

New employees that come into the division go through an orientation course familiarizing them with their section.

Third Rail Operations (TRO) Induction training includes the Power Distribution Maintainer (PDM) and MS1 titles.

Pick Assignment and Ongoing Training requires that employees in the job title of PDM who pick into or select the title of Circuit Breaker Maintainer to complete basic Circuit Breaker Maintainer Training and return for an additional Circuit Breaker Maintainer refresher training.

Refresher Training for PDMs and MSIs ensure that employees are properly trained regarding new policies and/or procedures that have been put in place since their induction training.

7.1.2G Signals

Signal Maintainer Induction Training is designed to develop the knowledge and practical skills of the Signal Maintainer to accurately maintain and adjust signal equipment throughout NYC Transit. This lengthy course combines theory and practical instruction along with hands-on equipment training.

There are various training courses offered at the Signals Learning Centers that cover the aspects mentioned above as well as refresher courses for employees that may need reinstruction or for preparing for promotional exams to advance their careers.

Promotion training requires newly promoted Signals MSIs to complete the course.

New employees that come into the division go through an orientation course familiarizing them with their section.

7.1.2H Car Equipment

The Car Inspectors Induction Training instructs employees on how to perform the duties and assume the responsibilities of a Car Inspector. Employees learn the rules and regulations that govern the job and receive an overview of subway car sub-systems.

The Road Car Inspector Training instructs employees on how to perform the duties and assume the responsibilities of a Road Car Inspector. Employees learn the rules and regulations that govern the job and are taught how to detect troubles on any part of a multiple-car unit in service on the road, in yards, and in terminals.

The Car Equipment Cleaner program qualifies newly appointed employees to perform the duties and assume the responsibilities of a Car Equipment Cleaner. Employees learn the rules and regulations that govern the job and receive all required safety and security courses.

The Maintenance Supervisor program instructs newly appointed Supervisors to perform the duties and assume the responsibilities of a Maintenance Supervisor. All new supervisors learn the rules and regulations that govern the job and receive the required safety and security courses. Maintenance Supervisor refresher is given as outlined in the departments Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs.

7.1.2I Service Delivery RTO

Train Operator (T/O) Induction Training qualifies newly appointed Train Operators to perform the duties and assume the responsibilities of a Train Operator. Upon completion of this course participants will be able to:

- Demonstrate familiarity with the operating procedures for trains on the various lines within the NYC transit system
- Demonstrate proper procedures for safely operating (various types of equipment/trains) in both yards and on mainline tracks
- Correctly explain and demonstrate proper procedures for dealing with emergency situations

Subdivision “A” and Subdivision “B” courses are given as outlined in the departments Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs.

T/O Refresher Training is designed to enhance the knowledge and improve the skills of FO Train Operators. Using non-revenue trains and simulators, the participants review train operation in revenue and non-revenue, road, yard, and terminal service. The course also reinstructs Train

Operators in day-to-day operations and emergency procedures. The course is given as outlined in the departments Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs. The employee is scheduled within 90 days of the anniversary date of completing induction training or the last refresher training, whichever is most recent.

Conductor Induction Training qualifies newly appointed Conductors to perform the duties and assume the responsibilities of a Conductor. Upon completion of this course participants will be able to:

- Demonstrate familiarity with the operating procedures for trains on the various lines within the NYC transit system
- Demonstrate proper procedures for safely operating (side doors in revenue service) a train on mainline tracks
- Correctly explain the importance of timely and accurate communication between train personnel, supervision, and customers.

Subdivision "A" and Subdivision "B" courses are given as outlined in the departments Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs.

Conductor Refresher Training is designed to enhance the knowledge and improve the skills of the Conductor in proper door operation, customer communications, and Train Operator and Control Center interactions.

The course is required and given as outlined in the departments Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs

The employee is scheduled within 90 days of the anniversary date of completing induction training or the last refresher training, whichever is most recent.

Tower Operator Induction Training qualifies newly appointed Tower Operators to perform the duties and assume the responsibilities of a Tower Operator. Upon completion of this course participates will be able to:

- Operate Towers safely and confidently in yards and on mainline tracks
- Identify Tower parts and their functions
- Perform basic troubleshooting

The course is given as outlined in the departments Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs.

Tower Operator Refresher Training is designed to enhance the knowledge and improve the skills of the Tower Operator to operate Towers safely and confidently in yards and mainline tracks, identify Tower parts and their functions and perform basic troubleshooting. The course is given as outlined in the departments Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs.

Train Dispatcher (T/D) Induction Training qualifies newly appointed Dispatchers to perform the duties for the expeditious and correct dispatching, preparation, and safe movement of trains and to maintain accurate records.

The course Subdivision "A" and Subdivision "B" courses are given as outlined in the departments Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs.

T/D Refresher Training is designed to enhance the knowledge and improve the skills of FO Dispatchers. The course allows participants to refresh their skills in troubleshooting techniques, and delay management techniques. The course is given as outlined in the departments Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs.

Assistant Train Dispatcher (ATD) Induction Training qualifies newly appointed Assistant Train Dispatchers to be able to regulate intervals of trains, as traffic requires. Assistant Train Dispatcher will be able to maintain Train Interval sheets and report and changes in intervals to the Operations Control Center.

Subdivision "A" and Subdivision "B" courses are given as outlined in the departmental Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs.

ATD Refresher Training is designed to enhance the knowledge and improve the skills of Assistant Train Dispatchers. The course allows participants to refresh their skills in troubleshooting and delay management techniques. The course is given as outlined in the departmental Safety Training Matrix, Policy/Instructions and/or other NYCT safety programs.

Train Service Supervisor (TSS) Induction Training qualifies newly appointed Train Service Supervisors to perform the duties and assume the responsibilities of a Train Service Supervisor. Upon completion of this course participates will be able to:

- Promptly investigate all complaints, accidents, or delays to service and render whatever assistance is possible
- Assist train crews in the Safe movement of disabled trains.

TSS Refresher Training is designed to enhance the knowledge and improve the skills of a Train Service Supervisor and to review the operation of all train equipment and emergency procedures. The course consists of one 2-hour module and is given as outlined in the departmental Safety Training Matrix, Policy/Instructions, and/or other NYCT safety programs.

7.1.2J Station Environment & Operations

Station Agent Induction Training qualifies newly appointed Station Agents to perform the duties and assume the responsibilities of a Station Agent, and instructs them in the rules and regulations that govern the job. The program includes the Station Agent Induction Core Course and the required safety and security courses. Customer courtesy, OMNY Training and AFC clerical duties are also included in the program.

Station Agent Refresher Training is designed to enhance the knowledge and improve the skills of the Station Agents in customer service, ADA and Operational Policies and Procedures.

Station Cleaner Induction Training is designed to qualify newly appointed Cleaners to perform the duties and assume the responsibilities of a Cleaner, and instructs them in the rules and regulations that govern the job. The program includes the Cleaner Induction Core Course and the required safety and security courses.

Stations Cleaner Refresher Training is designed to enhance the knowledge and improve the duties and responsibilities of a Cleaner.

Station Supervisor Induction Training qualifies newly promoted Station Supervisor I to perform the duties and assume the responsibilities of a Station Supervisor I. The program includes the Station Supervisor I Induction Core Course and the required safety and security courses. Included are how to conduct a booth audit and proper station inspection.

Station Supervisor Refresher Training is designed to enhance the knowledge and improve the operational and customer service skills of Station Supervisors.

7.1.2K Staten Island Railway

Staten Island Railway (SIR) employees are governed by the SIRTOA Book of Operating Rules, SIR Safety Rules, SIR Roadway Worker Protection Rules and Procedures, applicable NYCT Department of Subways Policies and Procedures, SIR specific Departmental Policies and Procedures, SIR Operational Bulletins and Executive Orders, and Transportation Timetable Special Instructions.

The broad variety of rules, regulations, and operation and maintenance procedures govern employee safety and technical training and certification through all SIR Departments. Every SIR Department develops and updates their training & certification matrixes accordingly.

Station Cleaner Refresher Training is designed to enhance the knowledge and improve the operational and technical skills of the Station Cleaner.
The following are the key elements describing development, implementation, and evaluation of SIR safety and technical training program:

- Rail vehicle maintenance training and qualifications are in accordance with the departmental requirements and applicable Shop Craft Agreement Rules.
- Methods of ensuring appropriate employee training include:

- Minimum qualifications for hiring/promotions are four-year journeyman's experience (except Signal Helpers having a minimum of two and one-half years of Signal Training, successfully completing all required phases of training and having shown ability to perform such work will be given the opportunity to take examination for promotion to Maintainer).
- Place new employees in department specific training program as appropriate to ensure that they have requisite skills to do daily work assignments safely and professionally in accordance with applicable policies and wage agreement rules.
- Attendance Roster or records maintained for each training session.
- Training and Certification records are maintained by operations training. Any In-house departmental training records performed by the individual department are filed in the respective Superintendent's office. The Non-Revenue Shop (NRS) maintains records of the training they provide.

The SIR required Trainings and Certifications include:

- SIR Book of Operating Rules
- SIR Roadway Worker Protection
- Employee Right- To-Know modules (department specific)
- Dispatcher Training Outline
- Conductor Passenger Training Outline.
- Engineer (R-44/R211/Diesel-Electric) Training Outline
- Tower/Block/CIL Training Outline
- All applicable NYCT safety training that is indicated in NYCT Policy Instructions such as: first aid/ CPR, confined space entry, respiratory protection, lead competent person, hazardous waste/ SARA title III, asbestos awareness and hearing conservation training and audiometric testing as well as other based on departmental specific tasks.
- All applicable FDNY Certificate of Fitness training that is outlined in NYCT Policy Instructions such as Fire and Emergency Drill Conductor (W07), Operation and Maintenance of Air Compressors (A35), Torch Use of Flammable Gases for Hot Work OPS (G60), Fire Guard for Torch OPS and Construction Site (F60), Operating Ammo-Activated Tools (E21), Additionally Lockout/Tagout, Equipment Certification on Automobiles, Heavy/Light Equipment, High Rail Track Equipment and Machinery, Overhead Cranes, High-Low Man-lifts, Boom Trucks, Movable Platforms and Extendable Arm Bucket Trucks through internal or outside agencies/authorities, vendors/manufacturers, and/or training institutions. Applicable interdepartmental training and certifications on Operating & Maintenance procedures, written examinations on Signals & Power manuals, MW-1 Track Standards and Reference Manuals and Inspection Procedures.

The following are the categories of safety related work that requires training and certification:

- Train Service / Dispatching – Train Dispatchers
- Work (Diesel) Train- Conductor, Locomotive Engineer
- Flagger (RWP) - Conductor
- Revenue Fleet Maintenance – Superintendent, Deputies, Supervisors, Maintainers (Electrical, Mechanical, Carman), RCI's. Car Cleaners.
- Infrastructure Maintenance - Superintendents, Foremen's, General Mechanics.

7.1.3 Employee Safety and Emergency Response Training

Each department/division prepares a safety-training matrix that indicates the safety training classes that must be attended by employees in each job title. The following summarizes the significant courses within the matrix.

Hazard Communication/Globally Harmonized System (GHS) – There are sixteen (16) self-paced computer-based training modules. Modules include chemical use and hazards, PPE, SDS, gases, flammable liquids, toxic particulates, etc. Employees complete selected modules based on their job title and assignments.

Respiratory Protection - Selected employees receive training on proper care, cleaning, and respirator use, the hazards they are exposed to and are then fit tested to a proper type and sized respirator with a refresher training given as outlined in the departments Safety Training Matrix, Policy/Instructions, and/or other NYCT safety programs.

Confined Space Entry - Selected employees receive training on the hazards of working in or near confined spaces. Employees participate in actual confined space entries and simulated rescues using SCBA equipment and other PPE with a refresher training given as outlined in the department's Safety Training Matrix, Policy/Instructions, and/or other NYCT safety programs.

Fall Protection - Selected employees receive training on the hazards of working on elevated performs or open roof areas. Employees participate in hands-on fall protection exercises using actual fall protection equipment on a simulated track section.

Safety Awareness/ Back Safety- This course is designed to teach employees effective approaches for improved safety awareness on the job, proper material handling, heightened awareness towards back injury prevention, and safe lifting techniques. The course provides an in-depth discussion on the causes of accidents and examines models of accident prevention.

Lead Competent Person – Selected employees receive training on how to identify sources of lead in the NYC transit system, correctly identify and monitor potential sources of lead, protect against routes of exposure, minimize potential health effects, and review OSHA construction requirements. This course complies with all requirements under OSHA 29 CFR 1926.62.

PPE for Supervisors- Required training for Supervisors in the various uses and limitations of Personal Protective Equipment (PPE) and in the proper care, maintenance, useful life, and disposal of PPE. A review of the procedures necessary to conduct Hazard Assessments, Job Task Hazard Assessments, and training Certification of operating employees. The course complies with all requirements under OSHA 29 CFR 1910.132,133, 135, 136, and the most recent version of NYCT Policy Instruction10.21.

Safety Management for front Line Supervisors Safety (Safety Management Techniques for Managers/Front Line Supervisors)- This course is designed to give newly inducted Supervisors/Managers an understanding of their roles in our current safety culture, techniques for reducing accidents and specific actions a Supervisor/Manager can take to make a positive impact on safety performance.

Emergency Response Training - Required for selected managers, supervisors, and employees who are responsible for assisting customers in the event of an emergency. Training is available in the following disciplines:

- *Standard First Aid and CPR/AED* - Employees receive training on life saving techniques in emergency situations, how to call for help and how to care for a sick or unconscious person. (8-hour program/annual refresher)

- *National Incident Management System* - Selected employees receive this training based on their job title and responsibilities. ICS 100/200 and IS 700/800 training is available online or in a classroom format.

- *Hazardous Waste Operations and Emergency Response* -Employees receive training on responding to chemical emergencies and terrorist incidents with a refresher training given as outlined in the departmental Safety Training Matrix, Policy/Instructions, and/or other NYCT safety programs.

- *Fire Prevention and Passenger Evacuation Training* - Designed to teach participants the rules and procedures utilized to control incipient stage fires that occur throughout the transit system. Participants are taught how to extinguish fires and safely evacuate passengers from a train.

7.1.4 De-Escalation and Workplace Violence Training

A standalone de-escalation training has been established for Department of Subways employees. In the training, techniques are provided enabling employees to recognize and identify situations which can potentially put themselves at risk as well as handling confrontational interactions. The training also instructs employees to retreat to a safe and secure place when encountering a potentially threatening situation with customers in their work environment. The training consists of lecture and provides a forum to practice learned techniques through hands on, scenario-based exercises to provide practice, receive instructor and peer feedback, and aid retention. Currently, de-Escalation training is offered for station agents, conductors, and station cleaner titled employees with plans for a further rollout of de-escalation training to all front-line and maintenance employees.

In conjunction with the de-escalation training DOS has issued bulletins addressing de-escalation best practices to all station environment & operations employees and frontline employees are trained in customer service and communications, as outlined by departmental training guidance and curricula. The training entails dealing with different types of customers (timid, overly friendly, culturally diverse, etc.), as well as with angry and emotional customers, and diffusing/de-escalation of angry passengers and situations.

Additionally, New York City Transit is committed to maintaining a workplace free from violence, threats of violence, harassment, intimidation, and other forms of disruptive behavior. All NYCT employees are trained on and required to be familiar with the agency policy to promote a safe environment for all employees.

7.1.5 Contractor Safety

Safety training requirements for contractor employees are detailed in contract specifications. Current requirements for employees “engaged in physical work” include OSHA 30-hour Construction Safety and Health course as well as initial and refresher Track Safety Training for all employees working along or near the right of way. Additional safety training requirements for Contractor employees in safety related positions include 40-hour NYC DOB Site Safety Manager Course, and the 30-hour OSHA Construction Safety and Health course. Additional requirements for these employees under the new MTA C&D Division 1 specification includes requirement for receiving a minimum of six (6) hours of relevant safety training courses on a yearly basis for the duration of the Contract and all supervisory personnel shall complete an additional thirty-two (32) hours of training in accordance with the requirements of Local Law 196. Additional environmental training (lead, asbestos) may be required depending on contract requirements.

The following are the Safety Training requirements for contractors working on NYCT property:

- All workers engaged in physical work activities, shall have in their possession at all times either of the following safety training certifications:
    - The 30-Hour OSHA Construction Safety & Health Course completion card issued by OSHA demonstrating completion of the required training.

- Current Site Safety Training (SST) Card issued by an approved NYC Department of Buildings (DOB) course provider which demonstrates completion of the 30-Hour OSHA Construction Safety & Health Course.

- An employee failing to attend Safety Orientation will not be permitted to perform any work which requires safety precautions as were discussed in the missed safety training until the employee has received the same instruction.

- By the first day of work on site, employee orientation training shall be given to new employees. The Health and Safety Plan/Accident Prevention Program/Hazard Communication Program (HASP/APP/HCP) shall include a detailed plan for the safety orientation of new employees, including:

  - Description of project and location of first aid/medical facilities.
  - Review of APP/HASP, Hazard Communication Program, Alcohol, Drugs, and Tobacco Policy including pre-employment drug testing if applicable.
  - Distribution of project safety rules.
  - Emergency Preparedness and Response (EP & R) Drill.
  - Description of specific site hazards and safe working methods.
  - Review of the project APP, GHS (SDS).
  - Track Safety Training for work on or adjacent to tracks or energized contact rails, if applicable.
  - PPE and Safety Procedures.
  - Fire prevention/protection.

- Safety Training/Toolbox meetings shall be held at the start of each workday by the Competent Persons to instruct all employees in safety precautions applicable to that day's work hazards.

- If any employees are non-English speaking, an interpreter shall be provided to interpret the contents of each New Employee Safety Training sessions and Safety Briefings. An interpreter shall also translate all safety-related instructions on the job.

- Additionally, a scaffold erector training course is required for personnel erecting and dismantling supported scaffolds and a scaffold user training course is required for all workers using a supported scaffold.

- The Contractor’s Project Manager and all safety management personnel shall attend C&D Contractor Safety Workshops and Safety Stand-down Training.

The following is an overview of the safety training requirements for C&D projects, PMP 110 Safety:

Mandatory Safety Training

Project Chief Executive Officers (PCEOs), Project Management Consultants (PMCs), Consultant Construction Managers (CCMs) Chief Discipline Engineers, Principal Engineers, Design

Managers, and other C&D management personnel are to ensure that C&D personnel, Consultants, and all Contractor and Subcontractor personnel who will perform work on or adjacent to operating tracks have attended the following safety training provided by the Operations Training or by C&D:

Track Safety - Available for NYCT, Consultant, Contractor, and Subcontractor personnel. A one-day course (or follow the latest NYCT requirements) covering procedures and safe practices associated with operating trackways. It shall successfully completed by all personnel required to work on or adjacent to the track as outlined in the departmental Safety Training Matrix, Policy/Instructions, and/or other NYCT safety programs.

The PCEO/PMC shall ensure that the Contractor or Consultant requires each employee who has completed track safety training to maintain proof of said training on their person at all times while working on the project.

The Safety Manager shall maintain a list of all employees (including Subcontractors) who attended and completed NYCT's Track Safety Seminar and submit the list to the Project CEO on a quarterly basis. The list shall contain all employees' names, job function/classification, employer, date of attendance, and the date for renewal training.

The PCEO/PMC shall ensure that the Contractor's Safety Representative takes appropriate measures to prevent Contractor and Subcontractor personnel who have not attended NYCT's mandated Track Safety course from working on or adjacent to operating trackway.

In addition, the PCEO/PMC shall ensure, through the Resident Engineer and site inspectors armed with the list of track trained Contractor or Subcontractor personnel, that no one who does not appear on the list will be allowed to work on or adjacent to the trackway. To ensure that an absolutely accurate identification is made, the Resident Engineer and field engineers will compare the name on the list against the name on the photo ID that every Contractor employee is required to exhibit on their person at all times under the security mandates.

Refresher Track Safety - Available for C&D personnel with documentation of having attended NYCT Track Safety within the last two (2) years (or follow the latest NYCT requirements). Classroom instruction training is to be taken as outlined in the departmental Safety Training Matrix, Policy/Instructions, and/or other NYCT safety programs after completion of the initial Track Safety training course.

OSHA Course on Construction Safety - A 30-hour OSHA course on Construction Safety and Health based on 29CFR 1926. This course is required for all C&D and consultant field personnel. The course is also given to NYCT Operating and Non-Operating department personnel in order to enhance project safety and the protection of NYCT interests.

Hazard Communication Standard (Globally Harmonized Systems (GHS)) - A self-paced class to ensure that all applicable Federal and State laws and regulations are covered for employees who may be exposed to chemicals. Employees learn the possible health risks and/or hazards associated with chemicals and how to use them safely.

Construction and Safety Training as Needed

In addition to the above mandated safety training, C&D provides or facilitates the following Safety Training:

- C&D/Contractor Safety Workshops/Stand down: Various topics relevant to safety on C&D projects. (as required)
- PMG 123 "Implementation of General Orders" (required for C&D and CCM/PMC personnel serving as Employee In Charge on the Right of Way)

Additional Safety Training

Operations Training also provides additional safety training as follows:

- Standard First Aid/CPR
- Fire Prevention and Protection
- Confined Space Entry Training
- Hazardous Waste and SARA Title III
- Hearing Conservation
- Respirator Training Program
- Shop and Yard Safety
- Iron – Torch Operations (TOR120) – required for all Iron trades (every 6 years)

Contractor Provided Training

The PCEO/PMC and CCM shall ensure that all necessary training is in compliance, as evidenced by the Contractor maintaining records for all training provided.

Procedure for Requesting Training

The PCEO/PMC, CCM, DMs, Chief Discipline Engineers, Principal Engineers, and other management personnel shall determine which NYCT, PMC/CCM, Consultant, and Contractor employees are required to attend the mandatory one-day Track Safety and Track Safety refresher courses and any additionally required safety training for NYCT employees. All requests for C&D, Consultant, and Contractor or Subcontractor personnel to participate in training courses shall be made by the PCEO, PMC/CCM, and DM, Chief Discipline Engineer, Principal Engineer, or other management personnel by completing and submitting a course nomination sheet or via email.

7.1.6 Recordkeeping

New York City Transit (NYCT) is dedicated to delivering safe public transportation and committed to providing a safe environment for our customers, employees, contractors, and the public. As a result, NYCT has developed numerous safety and operational reference documents that will ensure that safety and environmental compliance is integrated into all phases of the division/department including design, procurement, construction, modification/rehabilitation, operation, maintenance, and disposal. These documents consist of policy/instructions,

memorandums, manuals, procedures, plans, training matrices, bulletins, advisories, rulebooks, and notices. They can be found in the Minimum Safety Standards database maintained by DOS Safety for at least three years.

NYC Transit uses the Enterprise Learning Management System (ELM) to capture, store, and report employee training related data. Authorized personnel can access records and produce reports based on unique employee identification information. DOS is continually in the process of putting all relevant data into ELM. In addition, C&D Human Resources enters data into the database.

Non-NYCT training requirements for contractor or employees are provided and maintained via each individual contractor. Compliance with these requirements is verified via the project safety assessments performed by the Business Unit Safety Teams and MTA C&D Safety Oversight.

The Division of Operational Support, Training maintains a database with the names of Contractor and Consultant employees who have attended Track Safety and Track Safety Refresher Training, as well as ELM.

7.1.7 Compliance with Training Requirements

Training requirements are determined by NYCT rules and regulations, policy instructions, and federal and state regulations. Each operating department has developed a safety training matrix to ensure that requirements are met on the federal, state, and agency level. The Office of System Safety (OSS) validates the Operating Department matrix via annual reviews and updates that departments/divisions submit to Operations Support who coordinates the review/update process with OSS. The most recent training matrices can be found in section 7.3 below.

Periodic audits of training data are compared with employee job assignments and/or training matrices to ensure regulatory and policy compliance. This is accomplished through a designated departmental training liaison that utilizes a tracking data-based system. Additionally, training liaisons are responsible for verifying and adjusting required safety and technical training on the departmental/divisional training matrix and are required to perform an annual audit and report findings to the Divisional Chief Officers and the Chief Officer, Operations Training.

7.2 Safety Communication

The following are processes and activities that are used to communicate safety and safety performance information throughout the organization:

- *Safety Times Newsletter.* Each quarter the Department of Subways prepares and distributes a Safety Times Newsletter. The newsletters are used to communicate safety values, address areas of concern, or other safety information.
- *Safety Poster.* Twice per year DOS develops and posts "Safety Talk" safety posters that are relevant to work tasks and environment, addresses safety concerns/trends, and reminds employees of safe behavior that will prevent accidents.
- *Departmental Bulletins.* Bulletins issued to employees to inform them of specific safety risks and hazards for procedures and equipment.
- *Safety Toolbox Talks.* On a daily basis line supervision has a safety toolbox talk at the start of the shift. The safety rule of the day, employees job task and any safety concerns are discussed.
- *Safety Meetings.* There are safety meetings held at all levels of the organization to share and discuss safety information.
- *Safety Stand-Downs.* Periodically DOS will initiate a safety stand down where employees are informed of new safety policies or safety initiatives.
- *Employee Safety Hotline.* Employees who have reported an incident can call the hotline with a reference number to inquire about actions taken in response to their report.
- *Employee Survey – Safety Climate Barometer.* Employees can anonymously provide feedback on workplace safety. Survey results are communicated to employees through memos from senior management.
- *Safety Spark Employee Safety Program* - Employees can provide ideas, suggestions, recommendations on how to make the workplace/operation/work procedure safer, by email them to safetyspark@nyct.com.

7.3 Training Matrices

This section contains the most recent training matrices for each department, the matrices are used as a guide to show all the required trainings for each employee title, the frequency and hours of each course. Each training matrix is reviewed and updated on an annual basis and submitted to OSS for review and approval.

DIVISION OF CAR EQUIPMENT
SAFETY TRAINING MATRIX
2025

				TITLES																
	COURSE NAMES	CODE	COURSE #	CTA	RCI	CIA	CIB	TEA	SMC	CMB	CMC	CM TRNE	MHB	TEM	EEM	MSI	MSII	D/SUPT	SUPT	FREQUENCY	HOURS
RIGHT TO KNOW	Mod. 1: Chemical Safety		HZCMGHS1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 2: Recognition		HZCMGHS2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 3: Control		HZCMGHS3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 4: Supv. Overview MSDS & Labels		HZCMGHS4													X	X	X	X	Once *	Self paced
	Mod. 5: Supv. Overview Hazards		HZCMGHS5													X	X	X	X	Once *	Self paced
	Mod. 6: Organic Solvents		HZCMGHS6	X	X	X	X	X	X	X	X	X	X	X	X					Cycle Annually	Self paced
	Mod. 7: Fuels/Lubricants		HZCMGHS7		X	X	X	X	X	X	X	X	X	X	X					Cycle Annually	Self paced
	Mod. 8: Coatings, Adhesives & Sealants		HZCMGHS8		X	X	X	X			X	X	X	X	X					Cycle Annually	Self paced
	Mod. 9: Gases		HZCMGHS9			X	X	X	X				X							Cycle Annually	Self paced
	Mod. 10: Metals and Metal Salts		HZCMGHS10			X	X	X	X			X	X	X	X					Cycle Annually	Self paced
	Mod. 11: Corrosives		HZCMGHS11	X		X	X	X	X			X	X	X	X					Cycle Annually	Self paced
	Mod. 12: Toxic Particulates		HZCMGHS12	X	TD	X	X	X	X	X	TD	TD	TD	X	X	X	X			Annual	Self paced
	Mod. 13: Nuisance Dusts		HZCMGHS13	X	X	X	X	X	X	X			X	X						Cycle Annually	Self paced
	Mod. 14: Coolants and Additives		HZCMGHS14		X	TD	TD	TD					X							Cycle Annually	Self paced
	Mod. 15: Pesticides/Preservatives		HZCMGHS15										X							Cycle Annually	Self paced
	Mod. 16: Cleaners		HZCMGHS16	X	X	X	X	X		X	X	X	X	X	X					Cycle Annually	Self paced
GENERAL SAFETY	Hearing Conservation	A	SS11I		X	X	X	X		X	X					X				Annual	Self paced
	Bio/Infectious Waste		SS12I	X	X	X	X	X	X	X	X	X	X	X	X	X	X			Annual	Self paced
	Asbestos Awareness	G	STAATI	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD		TD	TD	TD			Annual	Self paced
	OSHA Lead Worker (Module D)	B	LDATI		TD	TD	TD	TD	TD	TD	TD	TD				TD	TD			Annual	Self paced
	Lead Competent Supv (Above Action Level)	B	SSTLCP													TD	TD			Annual	8 hours
	Safety Management		DUPST													X	X	X	X	Once	16 hours
	Workplace Violence Prevention		MDTTRN025	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Annual	Self paced
	Actions Employees Can Take (Dupont)		ECTSTA	X	X	X	X	X	X	X	X	X	X	X	X	X	X			Once *	4 hours
	Respiratory Protection (Above Action Level)	B	SS7			TD					TD									Annual	8 hours
	Personal Protective Equipment		STPPEQ													X	X	X	X	Once	4 hours
	PPE Appendix E (Verbal by Supv to Hrly)		DOSPPE	X	X	X	X	X	X	X	X	X	X	X	X					Once	Self paced
	Hazard Waste/SARA III	C	SS9/SS91	TD	TD	TD	TD	TD		TD	TD	TD	TD		TD	TD	TD			Annual	8 hours
	Haz/Waste Summary (given w/RTK 12)		Handout	X	X	X	X	X	X	X	X	X	X	X	X	X	X			Annual	Handout
	Safety Awareness/Back Safety (IOD)		SSSA02	X																Once*/As Needed IOD	8 hours
	Comprehensive OSHA		OSHAGC															X	X	As Requested	10 hours
	Confined Space/Refresher	D	SS51/SS52			TD	TD	TD	TD							TD	TD			Once/Annual	24 hrs/16 hrs
	Fall Protection (falls/heights greater 4 ft)	I, K	STFLLP		TD	TD	TD	TD	TD				TD	TD		TD	TD			Once	8 hours
	Lock Out/Tag Out		LOTOTI		X	X	X	X	X	X			X	X	X	X	X			3 years	Self Paced
	Fire Prevention/Passenger Evacuation		SSF1	TD	TD		TD	TD	TD		TD					TD	TD	TD	TD	6 years	8 hours
	NIMS ICS-100/200/700	F	ICS100/200/700															X	X	Once	Web based/Self paced
	Silica		RCSSTC			TD														Annual	View Video
	Shop & Yard Safety		CO14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	8 hours
	Storm Water Awareness		SSWTV	X		X	X	X					X			X	X			Annual	1 hour
	Track Safety/Refresher	H	TS3/TSR808	X	X	TD	TD	TD	X	TD	TD	X	TD		X	X	X	X	X	Once/2 years	8 hrs/8 hrs
	Track Flagging/Refresher		TKFR08											X						Annual	8 hours
	Overhead Crane Operator		TCO1			TD	TD	TD								TD	TD			Once	40 hours
	Overhead Crane Operator Pendant		TCO2			X	X	X	TD	TD			TD			TD	TD			Once	8 hours

DIVISION OF CAR EQUIPMENT
SAFETY TRAINING MATRIX
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				TITLES															
	COURSE NAMES	CODE	COURSE #	CTA	RCI	CIA	CIB	TEA	SMC	CMB	CMC	CM TRNE	MHB	TEM	EEM	MSI/II	MSI/II	D/SUPT	SUPT	FREQUENCY	HOURS
	Crane Inspector Overhead/Mobile		TCOH16/TC8			TD	TD	TD					TD			TD	TD			6 years	16 hours
	Crane Safety for Supervisors		TCS7													TD	TD			Once	8 hours
	Crane Universal Hand Signals**		IHS027		TD	X	X	X		X						X	X			Once	4 hours
	Basic Rigging	J	VBR713			TD	TD	TD	TD	TD			TD			TD	TD			Once	8 hours
	Forklift/Hi-Lo	E, L	CS3	TD		TD	TD	TD	TD				TD			TD	TD			Once	16 hours
	Personnel Platform Lift	E, K	TCP1		TD	TD	TD	TD	TD				TD							Once	16 hours
	Bobcat/Mustang		IBC169			TD	TD	TD		TD										Once	16 hours
	Powered Industrial Truck Evaluation		PITEVA			TD	TD	TD	TD				TD							3 years	Self Paced
	Power Industrial Truck Supervisors	E	PIT047													TD	TD	TD	TD	Once	4 hours
	Welding - Basic		MVW003			TD	TD	TD					TD	TD						Once	40 hours
	Welding - Advanced		MVW006			TD	TD	TD					TD	TD						Once	40 hours
	Welding - Silver Brazing & Soldering		MVW004			TD	TD	TD					TD	TD						Once	24 hours
	Welding Safety for Supervisors		IWS082													TD	TD			Once	8 hours
	Accident Investigation		SSAIW													X	X	X	X	Once *	View Video
	NYS Asbestos Supervisor/Refresher		ATC012													TD	TD			Once/Annual	32 hrs/8 hrs
	NYS Asbestos Handler/Refresher		ATC006			TD	TD	TD												Once/Annual	40 hrs/8 hrs
	Trolleying Cars/Refresher		MTD000/MTD001		TD	TD	TD	TD								TD	TD			Once/Annual	8 hours/1 hour
	Road Car Inspector Refresher		CR2RF		X															3 years	24 hours
	Maintenance Supervisor Refresher		COMS1R													X	X			3 years	24 hours
	SPCC/SPR (oil or antifreeze exceed 55 gal)			X		X	X	X								X	X	X	X	2 years	View Video
CERT OF FITNESS	C30: Supervisr Spray Painting		SC30C			TD	TD	TD								TD	TD			6 years	4 hours
	C92: Storage/Use of Flammable/Combust Liq		SC92C			TD	TD	TD								TD	TD			6 years	4 hours
	F99: Standpipe Sys, Yd Hydrants w/City Mains		SF99C			TD	TD	TD								TD	TD			6 years	4 hours
	F60: Fireguard for Torch Operations		SF60C		X	TD	TD	TD	TD							X	X			6 years	4 hours
	F07: Fire and Emergency Drill Conductor		SF07C			TD	TD	TD								TD	TD			3 years	4 hours
	G60: Flam. Gas Torch Use for Cut/Weld		SG60C			TD	TD	TD	TD							TD	TD			6 years	4 hours
	A35: Operation of Air Compressors		SA35C			TD	TD	TD	TD							TD	TD			6 years	4 hours
	G98: Storage/Use of Flammable/Combustible Gases (incl. NF Compressed Gas Cylinders)		SG98C			TD	TD	TD	TD							TD	TD			6 years	4 hours
	P15: Dispense Motor Fuels		SP15C			TD	TD	TD	TD							TD	TD			6 years	4 hours
	W96:Portable Extinguisher Inspection		SW96C			TD	TD	TD	TD							TD	TD			6 years	4 hours
	P15: Dispense Motor Fuels		SP15C			TD	TD	TD	TD							TD	TD			6 years	4 hours
	US EPA Refrigerant Handling		CC25D3			TD	TD	TD								TD	TD			Once	24 hours

Legend:

X – All employees must attend this training

TD – Task Driven

* Employees are given these modules/training during induction

** Provided in all Crane Classes

Code:

A Employees who are defined in the HCP P/I will attend this module and will attend an annual Audiometric test

B Employees required to work Above Lead Action Level defined by the P/I will attend these classes

C Given to Supervisory/Hourly employees which relate to hazardous waste management

C Required for employees performing lead disturbance activities that are large quantitiy generator (LQG) @ 207 St & CI Overhaul shops

D Required for employees performing maintenance on Canarsie & Jamaica car washers

Title Abbreviations:

CTA: Cleaner

RCI: Road Car Inspector

CI: Car Inspector

CIA: Car Inspector A

CIB: Car Inspector B

TEA: Transit Electrical Apprentice

SMC: Structure Maintainer C

CMB: Car Maintainer B

CMC: Car Maintainer C

CME: Car Maintainer E

CMTRNE: Car Maintainer Trainee

MHB: Maintainer Helper B

TEM: Track Equipment Maintainer

EEM: Electronic Equipment Maintainer

MS I/II: Maintenance Supervisor, Level I/II

DEP/SUPT: Deputy Superintendent/Superintendent

GEN SUPT: General Superintendent

DIVISION OF CAR EQUIPMENT
SAFETY TRAINING MATRIX
2025

E Forklift/Hi-Lo is the pre-requisite for Supervisors that will attend PIT047 to conduct employee evaluations
F Employees performing Emergency Response are required to complete these modules
G Asbestos Awareness Training required for personnel performing maintenance or custodial activities in areas where asbestos containing or presumed asbestos containing materials are present.
H CIA/CIB employees working at Pelham Diesel Shop are required to take this training. If job duties of Overhaul Shop CIA/CIB titles requires the employee to work on/cross yard and/or mainline tracks,Supv must ensure employees attend Track Safety
I Fall Protection is the pre-requisite for heavy trucks that operate at heights above 6 feet (ex: Platform Lift, Bucket Truck, Flatbed Lift Truck)
J Rigging is required for employees that operate Cranes and/or material handling which involves rigging
K RCI's that pick into Vacuum Train @ CI and Westchester yards may be required to perform heavy maintenance on equipment located on roofs of Vacuum trains.
L Task Driven for CTA's that move cleaning supplies and materials.

Note: Trainee, Helper and Apprenticeship titles should attend Right-to-Know and trade specific training.
All non-crane operators who are responsible for rigging loads are required to take Basic Rigging Training
Cycle Annually = cycling in progession no less than 1 module (6-16) annually.

Revised: 11/22/24

MAINTENANCE OF WAY, DIVISION OF ELECTRICAL
SAFETY TRAINING MATRIX
2025

				TITLES														
	COURSE NAMES	CODE	COURSE #	SM	CMB	TEHP(S)	TEHP(E)	EEM	PCM	PMB	PET	PEM	MS I	MS II	GS/ SUPT	FREQUENCY	HOURS
RIGHT TO KNOW	Mod. 1: Chemical Safety		HZCMGHS1	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 2: Recognition		HZCMGHS2	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 3: Control		HZCMGHS3	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 4: Supv. Overview MSDS & Labels		HZCMGHS4										X	X	X	Once *	Self paced
	Mod. 5: Supv. Overview Hazards		HZCMGHS5										X	X	X	Once *	Self paced
	Mod. 6: Organic Solvents		HZCMGHS6	X	X	X	X	X	X	X	X	X				Cycle Annually	Self paced
	Mod. 7: Fuels/Lubricants		HZCMGHS7	X	X	X	X	X	X	X	X	X				Cycle Annually	Self paced
	Mod. 8: Coatings, Adhesives & Sealants		HZCMGHS8	X		X	X	X	X	X	X	X				Cycle Annually	Self paced
	Mod. 9: Gases		HZCMGHS9						X							Cycle Annually	Self paced
	Mod. 10: Metals and Metal Salts		HZCMGHS10				X	X		X	X	X				Cycle Annually	Self paced
	Mod. 11: Corrosives		HZCMGHS11	X	X	X		X								Cycle Annually	Self paced
	Mod. 12: Toxic Particulates		HZCMGHS12	X	X	X	X	X					X	X		Annual	Self paced
	Mod. 13: Nuisance Dusts		HZCMGHS13													Cycle Annually	Self paced
	Mod. 14: Coolants and Additives		HZCMGHS14				X			X	X					Cycle Annually	Self paced
	Mod. 15: Pesticides/Preservatives		HZCMGHS15				X		X	X	X	X				Cycle Annually	Self paced
	Mod. 16: Cleaners		HZCMGHS16		X			X			X					Cycle Annually	Self paced
GENERAL SAFETY	Hearing Conservation	A	SS11I	TD			X			X			X			Annual	Self paced
	Bio/Infectious Waste		SS12I	X	X	X	X	X	X	X	X	X	X	X		Annual	Self paced
	Asbestos Awareness		STAATI	X	X	X	X	X	X	X	X	X	X	X		Annual	Self paced
	OSHA Lead Worker (Module D)	B	LDATI				TD		X	TD						Annual	Self paced
	Lead Competent Supv (Above Action Level)	B	SSTLCP										TD	TD		Annual	8 hours
	Safety Management		DUPST										X	X	X	Once	16 hours
	Workplace Violence Prevention		MDTTRN025	X	X	X	X	X	X	X	X	X	X	X	X	Annual	Self paced
	Actions Employees Can Take (Dupont)		ECTSTA	X	X	X	X	X	X	X	X	X				Once *	4 hours
	Respiratory Protection (Above Action Level)	B	SS7	TD		TD	TD		X	TD			TD			Annual	8 hours
	Personal Protective Equipment		STPPEQ										X	X		Once	4 hours
	PPE Appendix E (Verbal by Supv to Hrly)		DOSPPE	X	X	X	X	X	X	X	X	X				Once	Self paced
	Hazard Waste/SARA III	C	SS9/SS91						TD	TD			TD	TD		Annual	8 hours
	Haz/Waste Summary		Handout	TD		TD	TD		TD	TD						Annual	Handout
	Comprehensive OSHA		OSHAGC										TD	TD	TD	As Requested	16 hours
	Confined Space/Refresher		SS51/SS52	TD		TD	TD		X	TD			TD	TD		Once/Annual	24 hrs/16 hrs
	Fall Protection (falls/heights greater 6 ft)		STFLLP	TD		TD	TD			TD			TD	TD		Once	8 hours
	Lock Out/Tag Out		LOTOTI	X	X	X	X	X	X	X	X	X	X	X		3 years	Self Paced
	Fire Prevention/Passenger Evac		SSF1	X	X	X	X	X	X	X	X	X	X	X		6 years	8 Hours
	National Incident Mgmt Safety Aware-NIMS		SNIMAI	X	X	X	X	X	X	X	X	X	X	X		Once	1 hour
	NIMS ICS-100/200/700		ICS100/200/700												X	Once *	Web based/Self paced
	Silica	H	RCSSTC	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	Annual	1 hour
	Safety Awareness/Back Safety (IOD)		SSSA02	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD			Once *	8 hours

MAINTENANCE OF WAY, DIVISION OF ELECTRICAL
SAFETY TRAINING MATRIX
2025

				TITLES												
	COURSE NAMES	CODE	COURSE #	SM	CMB	TEHP(S)	TEHP(E)	EEM	PCM	PMB	PET	PEM	MS I	MS II	GS/ SUPT	FREQUENCY	HOURS
TECHNICAL	Track Flagging/Refresher	G	TKFR08	X	TD	X	X	X	X	X	X	X	X	X	X	Once/Annual	72 hrs/8 hrs
	Track Safety/Refresher		TSR808		X											Once**/2 years	8 hours
	Track Safety Inspections		TSI809										X	X		Once	8 hours
	Overhead Crane Operator Pendant		TCO2	TD	TD	TD	TD		TD	TD			TD	TD		Once	8 hours
	Overhead Crane Operator Cab		TCO1	TD	TD		TD		TD	TD			TD	TD		Once	40 hours
	Crane Safety for Supervisors		TCS7										TD	TD		Once	8 hours
	Basic Rigging	F	VBR713	TD	TD	TD	TD		TD	TD			TD	TD		Once	8 hours
	Forklift/Hi-Lo	E	CS3	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	Once	16 hours
	Powered Industrial Truck Evaluation		PITEVA	TD	TD	TD	TD	TD	TD	TD	TD	TD				3 years	Self Placed
	Power Industrial Truck Supervisors	E	PIT047										TD	TD	TD	Once	8 hours
	Accident Investigation		SSAIW										X	X	X	Once *	View Video
	NYS Asbestos Supervisor/Refresher		ATC012										TD	TD		Once/Annual	32 hrs/8 hrs
	NYS Asbestos Handler/Refresher		ATC006	TD		TD	TD		TD	TD						Once/Annual	40 hrs/8 hrs
	SPCC/SPR (oil or antifreeze exceed 55 gal)												TD	TD		2 years	View Video
CERT OF FITNESS	C92: Store/Use Flam/Comb Liquids		SC92C										TD	TD		6 years	4 hours
	E21: Ammo-Activated Tool		SE21C	TD									TD	TD		6 years	4 hours
	F07: Fire & Emergency Drill Conductor	D	SF07C										TD	TD		3 years	4 hours
	F60: Fire Guard for Torch Operation		SF60C				TD		TD	TD			TD	TD		6 years	4 hours
	G60: Flam. Gas Torch Use for Cut/Weld		SG60C				TD		TD	TD			TD	TD		6 years	4 hours
	G98: Storage/Use of Flammable/Combustible Gas		SG98C				X		X	X			X	X		6 years	4 hours
	A35: Operation of Air Compressors		SA35C	TD									TD	TD		6 years	4 hours
	W96:Portable Extinguisher Inspection		SW96C		TD		TD	TD	TD	TD	TD	TD	TD	TD		6 years	4 hours

Legend:

X – All employees must attend this training.
TD – Task Driven
* Employees are given these modules during induction
** Employees that are required to attend Track Flagging take Track Safety Qualification one time as a pre-requisite

Code:

A Employees who are defined in the HCP P/I will attend this module and will attend an annual Audiometric test
B Employees required to work Above Lead Action Level defined by the P/I will attend these classes
C Given to Supervisors which relate to hazardous waste management
D 215th St Signals Shop, PCC, and 126 W. 53rd St Location Managers or designated representatives must hold this certification
E Forklift/Hi-Lo is the pre-requisite for Supervisors that will attend PIT047 to conduct employee evaluations
F Rigging is required for employees that operate Cranes and/or material handling which involves rigging
G Employees working in RC#'s 2972, 2986-2994 and 2999 are considered "TD" for Track Flagging
H The title SM, TEHPS & MSI working in RC's 2934, 2936 & 2941 are required to complete Silica training annually.

Note: Trainee, Helper and Apprenticeship titles should attend Right-to-Know and trade specific training.
All non-crane operators who are responsible for rigging loads are required to take Basic Rigging Training

Title Abbreviations:

SM: Signal Maintainer
CMB: Car Maintainer (B)
TEHP(S): Transit Electrical Helper (Signal) T01
TEHP(E): Transit Electrical Helper (Electrical) T07
EEM: Electronic Equipment Maintianer
PCM: Power Cable Maintainer
PMB: Power Maintainer Group B
PET: Power Electronic Technician
PEM: Power Electronic Maintainer
MS I: Maintenance Supervisor, Level I
MS II: Maintenance Supervisor, Level II
GS/SUPT: General Superintendent/Superintendent

Revised: 11/22/24

Cycle Annually = cycling in progession no less than 1 module (6-16) annually.

DIVISION OF ELECTRONICS MAINTENANCE
SAFETY TRAINING MATRIX
2025

				TITLES														
	COURSE NAMES	CODE	COURSE #	CTA	EEM/H	EEM II	TM	LM	REM	REM II	CMB	CRT	SMC	MSI/II	GS/ SUPT	PTE	FREQUENCY	HOURS
RIGHT TO KNOW	Mod. 1: Chemical Safety		HZCMGHS1	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 2: Recognition		HZCMGHS2	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 3: Control		HZCMGHS3	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 4: Supv. Overview MSDS & Labels		HZCMGHS4											X	X	TD	Once *	Self paced
	Mod. 5: Supv. Overview Hazards		HZCMGHS5											X	X	TD	Once *	Self paced
	Mod. 6: Organic Solvents		HZCMGHS6	X	X	X	X	X	X	X	X	X	X				Cycle Annually	Self paced
	Mod. 7: Fuels/Lubricants		HZCMGHS7		X	X	X	X	X	X	X	X	X				Cycle Annually	Self paced
	Mod. 8: Coatings, Adhesives & Sealants		HZCMGHS8		X	X	X	X	X	X	X	X					Cycle Annually	Self paced
	Mod. 9: Gases		HZCMGHS9		X		X	X				X	X				Cycle Annually	Self paced
	Mod. 10: Metals and Metal Salts		HZCMGHS10		X	X	X	X	X	X	X	X	X				Cycle Annually	Self paced
	Mod. 11: Corrosives		HZCMGHS11	X	X	X	X	X	X	X	X	X	X				Cycle Annually	Self paced
	Mod. 12: Toxic Particulates		HZCMGHS12	X	X	X	X	X	X	X	X	X	X	X		TD	Annual	Self paced
	Mod. 13: Nuisance Dusts		HZCMGHS13	X	X		X	X	X		X	X	X			TD	Cycle Annually	Self paced
	Mod. 14: Coolants & Additives		HZCMGHS14		X		X	X									Cycle Annually	Self paced
	Mod. 15: Pesticides/Preservatives		HZCMGHS15		X		X	X									Cycle Annually	Self paced
	Mod. 16: Cleaners		HZCMGHS16	X	X	X	X	X	X	X	X						Cycle Annually	Self paced
GENERAL SAFETY	Hearing Conservation	A, D	SS11I									X					Annual	Self paced
	Bio-Infectious Waste		SS12I	X	X	X	X	X	X	X	X	X	X	X		TD	Annual	Self paced
	Asbestos Awareness	D, E	STAATI	X	TD		TD	TD						X		TD	Annual	Self paced
	OSHA Lead Worker (Module D)	B	LDATI				TD	TD					X				Annual	Self paced
	Lead Comp Person (Above Action Level)	B	SSTLCP											TD			Annual	8 hours
	Workplace Violence Prevention		MDTTRN025	X	X	X	X	X	X	X	X	X	X	X	X	TD	Annual	Self paced
	Actions Employees Can Take (DuPont)		ECTSTA	X	X	X	X	X	X	X	X	X	X				Once *	4 hours
	Safety Management		DUPST											X	X		Once	16 hours
	Respiratory Protection (Above Action Level)	B	SS7														Annual	8 hours
	Personal Protective Equipment		STPPEQ											X		TD	Once	4 hours
	PPE Appendix E (Verbal by Supv to Hrly)		DOSPPE	X	X	X	X	X	X	X	X	X	X				Once	Self paced
	Hazard Waste SARA III/Refresher	C	SS9/SS91		TD									TD			Once/Annual	8 hours/8 hours
	Hazard Waste Summary (Given w/RTK12)		SS9SSD	X	X	X	X	X		X			X	X		TD	Annual	Handout
	Comprehensive OSHA	D	OSHAGC				TD							TD	TD		As Requested	16 hours
	Confined Space/Refresher	D	SS51/SS52				TD							TD		TD	Once/Annual	24 hours/16 hrs
	Fall Protection (Falls & Heights Greater than 6 ft.)		STFLLP		X		TD	X					X	TD		TD	Once	8 hours
	Lockout/Tagout		LOTOTI			X	X	X	TD	X	TD	X	X	X		TD	3 years	Self paced
	Safety Awareness/Back Safety (IOD)		SSSA02	X	X	TD	TD	TD	TD	TD	TD	TD	TD	TD		TD	Once *	8 hours
	Fire Prevention & Passenger Evacuation		SSF1	X			X	X					X	TD		TD	6 years	8 hours
	National Incident Mgmt Safety Aware – NIMS		SNIMAI	X		X	X	X	X	X	X	X	X	X			Once *	1 hour
	NIMS ICS-100/200/700		ICS100/2/7												X		Once *	Self paced
	Substance Abuse Awareness		SAFS01	X	X	X	X	X	X	X	X		X				Once *	2 hours
	Accident Investigation Workshop		SSAIW											X	X		Once *	View Video

DIVISION OF ELECTRONICS MAINTENANCE
SAFETY TRAINING MATRIX
2025

	COURSE NAMES	CODE	COURSE #	TITLES														
				CTA	EEM/H	EEM II	TM	LM	REM	REM II	CMB	CRT	SMC	MSI/II	GS/ SUPT	PTE	FREQUENCY	HOURS
TECHNICAL	Forklift/Hi-Lo	F	CS3			TD				TD	TD		X	TD			Once	16 hours
	Truck Mounted Aerial Lift		IBT169		TD	TD	TD	TD		TD		TD		TD			Once	16 hours
	Powered Industrial Truck Evaluation		PITEVA		TD		TD	TD					X				3 years	Self paced
	Power Industrial Truck Supervisors	F	PIT047											TD	TD		Once	8 hours
	Defensive Driving		EMD11G006	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD		3 Years	6 Hours
	Track Safety Inspection		TSI809											TD			Once	8 hours
	Track Flagging/Refresher		TKFR08		X		X	X					X	TD	TD		Once/Annual	72 hrs/8 hrs
	Track Safety/Refresher	G	TSR808	X										TD	TD	TD	Once**/2 years	8 hours
CERTIFICATE OF FITNESS	C92: Store/Use Flam/Comb Liquids		SC92C		TD												6 years	4 hours
	E21: Ammo-Activated Tool		SE21C														6 years	4 hours
	F07: Fire Drill Conductor		SF07C											TD	TD		3 years	4 hours
	F99: Standpipe/Sprinkler/Yard Hydrants		SF99C														6 years	4 hours
	F60: Fire Guard for Torch Operation		SF60C														6 years	4 hours
	G60: Flam. Gas Torch Use for Cut/Weld		SG60C														6 years	4 hours
	G98: Storage/Use of Flammable/Combustible Gas		SG98C														6 years	4 hours
	A35: Operation of Air Compressors		SA35C							TD	TD			TD			6 years	4 hours
	P15: Dispensing Motor Fuels		SP15C														6 years	4 hours
	P99: Supv Low PSI Oil Burner Operation		SP99C		TD												6 years	4 hours
	W96: Portable Extinguisher Inspection		SW96C	TD	X	TD	TD	TD	TD	TD	TD	TD	TD	TD			6 years	4 hours

Legend:

X-- Employee must attend this training.
TD- Task Driven
* Employees are given these modules during induction.
** Employees that are required to attend Track Flagging take Track Safety Qualification one time as a pre-requisite.

Code:

A Employees who are defined in the HCP P/I will attend this module and will attend an annual Audiometric test.
B Employees required to work Above Lead Action Level defined by the P/I will attend these classes.
C Given to Supervisors which relate to hazardous waste management.
D Given to employees in the Station Rehabilitation and Contract Compliance groups.
E Given to employees in Telecommunications Maintenance.
F Forklift/Hi-Lo is the pre-requisite for Supervisors that will attend PIT047 to conduct employee evaluations.
G N/A for Buses employees.

Note: Trainee, Helper and Apprenticeship titles should attend Right-to-Know and trade specific training.
Cycle Annually = cycling in progession no less than 1 module (6-16) annually.
CES = Central Electronics Shop

Title Abbreviations:

CTA: Cleaner, TA
EEM/H: Electronic Equipment Maintainer/Helper
TM: Telephone Maintainer
LM: Light Maintainer
REM: Revenue Equipment Maintainer
CMB: Car Maintainer B
CRT: Coin Retrieval Technician
SMC: Structure Maintainer C
MS I/II: Maintenance Supervisor I/II
SUPT: Superintendent
G/S: General Superintendent
PTE: Professional & Technical Employees

Revised: 11/22/24

DIVISION OF ELEVATORS AND ESCALATORS
SAFETY TRAINING MATRIX
2025

				TITLES								
	COURSE NAMES	CODE	COURSE CODES	E&EMA	E&EM	E&EMH	E&ES	MS I	MS II	G/S SUPT	FREQUENCY	HOURS
RIGHT TO KNOW	Mod. 1: Chemical Safety		HZCMGHS1	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 2: Recognition		HZCMGHS2	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 3: Control		HZCMGHS3	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 4: Supv. Overview MSDS & Labels		HZCMGHS4					X	X	X	Once *	Self paced
	Mod. 5: Supv. Overview Chemical Hazards		HZCMGHS5					X	X	X	Once *	Self paced
	Mod. 6: Organic Solvents		HZCMGHS6	X	X	X	X				Cycle Annually	Self paced
	Mod. 7: Fuels/Lubricants		HZCMGHS7	X	X	X	X				Cycle Annually	Self paced
	Mod. 8: Coatings, Adhesives & Sealants		HZCMGHS8	X	X	X	X				Cycle Annually	Self paced
	Mod. 9: Gases		HZCMGHS9	X	X	X	X				Cycle Annually	Self paced
	Mod. 10: Metals and Metal Salts		HZCMGHS10	X	X	X	X				Cycle Annually	Self paced
	Mod. 11: Corrosives		HZCMGHS11	X	X	X	X				Cycle Annually	Self paced
	Mod. 12: Toxic Particulates		HZCMGHS12	X	X	X	X	X	X		Annual	Self paced
	Mod. 13: Nuisance Dusts		HZCMGHS13	X	X	X	X				Cycle Annually	Self paced
	Mod. 14: Coolants & Additives		HZCMGHS14	X	X	X	X				Cycle Annually	Self paced
	Mod. 15: Pesticides/Preservatives		HZCMGHS15	X	X	X	X				Cycle Annually	Self paced
	Mod. 16: Cleaners		HZCMGHS16	X	X	X	X				Cycle Annually	Self paced
GENERAL SAFETY	Hearing Conservation	A	SS11I								Annual	Self paced
	Bio-Infectious Waste		SS12I	X	X	X	X	X	X		Annual	Self paced
	Asbestos Awareness		STAATI	X	X	X	X	X	X		Annual	Self paced
	Safety Management		DUPST					X	X	X	Once	16 hours
	Workplace Violence Prevention		MDTTRN025	X	X	X	X	X	X	X	Annual	Self paced
	Actions Employees Can Take (Dupont)		ECTSTA	X	X	X	X				Once *	4 hours
	Respiratory Protection (Above Action Level)	B	SS7								Annual	8 hours
	Personal Protective Equipment		STPPEQ					X	X		Once	4 hours
	PPE Appendix E (Verbal by Supv to Hrly)		DOSPPE	X	X	X	X				Once	Self paced
	Hazardous Waste - SARA III	C	SS9					TD	TD		Annual	8 hours
	Hazardous Waste Summary		Handout	TD	TD	TD	TD				Annual	Handout
	Comprehensive OSHA		OSHAGC					TD	TD	TD	As Requested	16 hours
	Confined Space/Refresher		SS51/SS52	TD	TD	TD	TD	TD	TD		Once/Annual	24 hours/16 hrs
	Fall Protection (falls or heights greater 6 ft)		STFLLP	TD	TD	TD	TD	TD	TD		Once	8 hours
	Lock Out/Tag Out		LOTOTI	X	X	X	X	X	X		3 years	Self Paced
	Fire Prevention & Passenger Evacuation		SSF1	X	X	X	X	X	X		6 years	6 Hours
	National Incident Mgmt Safety Aware -NIMS		SNIMAI	X	X	X	X	X	X		Once	1 hour
	NIMS ICS-100/200/700		ICS100/200/700							X	Once	Web Based/Self Paced
	Accident Investigation Workshop		SSAIW					X	X	X	Once *	View Video
	Storm Water Pollution Video		SSWTV	X	X	X	X	X	X	X	2 years	View Video
	Safety Awareness/Back Safety (IOD)		SSSA02/STBS01	X	X	X	X	X	X		Once *	8 hours

DIVISION OF ELEVATORS AND ESCALATORS
SAFETY TRAINING MATRIX
2025

				TITLES								
	COURSE NAMES		COURSE CODES	E&EMA	E&EM	E&EMH	E&ES	MS I	MS II	GS/ SUPT	FREQUENCY	HOURS
TECHNICAL	Basic Rigging		VBR713	TD	TD	TD	TD	TD	TD		Once*	8 hours
	Personal Platform Lift		TCP1	TD	TD	TD	TD	TD	TD		Once	16 hours
	Truck Mounted Aerial Lift		IBT169	TD	TD	TD	TD	TD	TD		Once	16 hours
	Forklift/Hi-Lo	D	CS3	TD	TD	TD	TD	TD	TD	TD	Once	16 hours
	Powered Industrial Truck Evaluation		PITEVA	TD	TD	TD	TD				3 years	Self paced
	Power Industrial Truck Supervisors	D	PIT047					TD	TD	TD	Once	8 hours
	Track Safety Inspections		TSI809					X	X		Once	8 hours
	Track Safety/Refresher**		TSR808	X	X	X	X	X	X	X	Once**/2 years	8 hours
	SPCC/SPR (oil or antifreeze exceed 55 gal)							TD	TD		2 years	View Video
COF	F07: Fire Drill Conductor		SF07					TD	TD	TD	3 years	4 hours
	W96: Annual Portable Extinguisher Inspection		SW96C					X	X		6 years	4 hours

Legend:

X -- Employee must attend this training.
TD Task Driven
* Employees are given these modules/training during induction.

Code:

A Employees who are defined int he HCP P/I will attend this module and will attend an annual Audiometric test.
B Employees required to work Above Lead Action Level defined by the P/I will attend these classes.
C Given to Supervisors which related to hazardous waste management.
D Forklift/Hi-Lo is the pre-requisite for Supervisors that will attend PIT047 to conduct employee evaluations.

Note: Trainee, Helper and Apprenticeship titles should attend Right-to-Know and trade specific training.
Cycle Annually = cycling in progession no less than 1 module (6-16) annually.

Title Abbreviations:

E&EMA: Elevator & Escalator Maintainer Apprentice
E&EM: Elevator & Escalator Maintainer
E&EMH: Elevator & Escalator Maintainer Helper
E&ES: Elevator & Escalator Specialist
MS I: Maintenance Supervisor, Level I
MS II: Maintenance Supervisor, Level II
GS/SUPT: General Supt/Superintendent

Revised: 11/22/24

MAINTENANCE OF WAY, MOW ENGINEERING
SAFETY TRAINING MATRIX
2025

				TITLES																
	COURSE NAMES	CODE	COURSE #	PTE	MANAGER	SMA	SMB	SMC	SMD	SME	SMG	ATD	TKW	TKW SO	TEM	MS I (INFR)	MS II (INFR)	MS I (TRK)	MS II (TRK)	FREQUENCY	HOURS
RIGHT TO KNOW	Mod. 1: Chemical Safety		HZCMGHS1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 2: Recognition		HZCMGHS2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 3: Control		HZCMGHS3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 4: Supv. Overview MSDS & Labels		HZCMGHS4	X	X							X				X	X	X	X	Once *	Self paced
	Mod. 5: Supv. Overview Hazards		HZCMGHS5	X	X							X				X	X	X	X	Once *	Self paced
	Mod. 6: Organic Solvents		HZCMGHS6					X	X	X	X		X	X	X					Cycle Annually	Self paced
	Mod. 7: Fuels/Lubricants		HZCMGHS7					X					X	X	X					Cycle Annually	Self paced
	Mod. 8: Coatings, Adhesives & Sealants		HZCMGHS8			X			X	X	X				X					Cycle Annually	Self paced
	Mod. 9: Gases		HZCMGHS9			X		X	X				X	X						Cycle Annually	Self paced
	Mod. 10: Metals and Metal Salts		HZCMGHS10					X	X				X	X	X					Cycle Annually	Self paced
	Mod. 11: Corrosives		HZCMGHS11				X	X	X	X	X		X	X						Cycle Annually	Self paced
	Mod. 12: Toxic Particulates		HZCMGHS12			X	X	X	X	X	X		X	X	X	X	X	X	X	Annual	Self paced
	Mod. 13: Nuisance Dusts		HZCMGHS13			X	X	X	X	X	X		X	X	X					Cycle Annually	Self paced
	Mod. 14: Coolants & Additives		HZCMGHS14																	Cycle Annually	Self paced
	Mod. 15: Pesticides/Preservatives		HZCMGHS15										X	X						Cycle Annually	Self paced
	Mod. 16: Cleaners		HZCMGHS16																	Cycle Annually	Self paced
GENERAL SAFETY	Hearing Conservation	A	SS11I	TD	TD	TD	TD	TD		TD	TD									Annual	Self paced
	Bio-Infectious Waste		SS12I			X	X	X	X	X	X	X	X	X	X	X	X	X	X	Annual	Self paced
	Asbestos Awareness		STAATI			X	X	X	X	X	X		X	X	X	X	X	X	X	Annual	Self paced
	OSHA Lead Worker (Module D)	B	LDATI			TD	TD	TD	TD	TD	TD									Annual	Self paced
	Lead Comp Person (Above Action Level)	B	SSTLCP													TD	TD			Annual	8 hours
	Workplace Violence Prevention		MDTTRN025	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Annual	Self paced
	Actions Employees Can Take (Dupont)		ECTSTA	X		X	X	X	X	X	X		X	X	X					Once *	4 hours
	Safety Management		DUPST		X							X				X	X	X	X	Once	16 hours
	Respiratory Protection (Above Action Lev)	B	SS7			TD	TD	TD		TD	TD									Annual	8 hours
	Personal Proctective Equipment		STPPEQ									X				X	X	X	X	Once	4 hours
	PPE Appendix E (Verbal by Supv to Hrly)		DOSPPE			X	X	X	X	X	X		X	X						Once	Self paced
	Hazard Waste SARA III/Refresher	C	SS9/SS91					TD								TD	TD	TD	TD	Once/Annual	8 hours/8 hours
	Hazard Waste Summary (given w/RTK12)		SS9SSD				TD	TD												Annual	Handout
	Comprehensive OSHA		OSHAGC													TD	TD	TD	TD	As Requested	16 hours
	Confined Space/Refresher		SS51/SS52				TD	TD	TD	TD	TD					TD	TD			Once/Annual	24 hours/16 hrs
	Fall Protection (falls or heights greater 6 ft)		STFLLP			TD	TD	X	TD	TD	TD		TD	TD		TD	TD	TD	TD	Once	8 hours
	Lockout/Tagout		LOTOTI			X	X	X	X	X	X				X	X	X	X	X	3 years	Self paced
	Safety Awareness/Back Safety (IOD)		SSSA02			TD	TD	TD	TD	TD	TD		TD	TD	TD	TD		TD	TD	Once *	8 hours
	Fire Prevention & Passenger Evacuation		SSF1			X	X	X	X	X	X	X	X	X	X	X	X	X	X	6 years	8 Hours
	National Incident Mngmt Safety Aware - NIMS		SNIMAI									X								Once	Self paced
	NIMS ICS-100/200/700		ICS100/200/700		X															Once *	Self paced
	Accident Investigation Workshop		SSAIW		X							X				X	X	X	X	Once *	View Video

MAINTENANCE OF WAY, MOW ENGINEERING
SAFETY TRAINING MATRIX
2025

				TITLES																
	COURSE NAMES	CODE	COURSE #	PTE	MANAGER	SMA	SMB	SMC	SMD	SME	SMG	ATD	TKW	TKW SO	TEM	MS I (INFR)	MS II (INFR)	MS I (TRK)	MS II (TRK)	FREQUENCY	HOURS
TECHNICAL	Forklift/Hi-Lo	E	CS3			TD	TD	TD	TD	TD	TD			TD		TD	TD	TD	TD	Once	16 hours
	Overhead Crane Pendant Operator		TCO2												TD					Once	8 hours
	Crane Safety for Supervisors		TCS7															TD	TD	Once	8 hours
	Bobcat/Mustang Operator		IBC169											TD						Once	16 hours
	Commercial Driver License													TD						Once	40 hours
	Personal Platform Lift		TCP1			TD	TD	TD	TD	TD	TD					TD				Once	16 hours
	Boom Truck Operator		TC4					TD												Once	24 hours
	Powered Industrial Truck Evaluation		PITEVA			TD	TD	TD	TD	TD	TD			TD	TD					3 years	Self paced
	Power Industrial Truck Supervisors	E	PIT047													TD	TD	TD	TD	Once	8 hours
	Welding - Basic	G	MVW003					TD												Once	40 hours
	Welding - Advanced	G	MVW006					TD												Once	40 hours
	Welding Safety for Supervisors	F	IWS082													TD	TD	TD	TD	Once	8 hours
	Track Flagging/Refresher		TKFR08			X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once/Annual	72 hrs/8 hrs
	Track Safety/Refresher		TSR808	X	X							X								Once**/2 years	8 hours
	NYS Asbestos Supervisor/Refresher	H	ATC012																	Once/Annual	40 hours/8 hours
	NYS Asbestos Handler/Refresher	H	ATC006																	Once/Annual	32 hours/8 hours
	SPCC/SPR (oil or antifreeze exceed 55 gal)															TD	TD	TD	TD	2 years	View Video
	Track Supervisor/Supt Refresher		TL2															X	X	3 years	16 hours
	Major Track Const/Maint Inspections		TCM249																TD	Once	24 hours
	Track Safety Inspections		TSI809													X	X	X	X	Once	8 hours
CERT OF FITNESS	C92: Store/Use Flam/Comb Liquids		SC92C													TD	TD	TD	TD	6 years	4 hours
	F07: Fire Drill Conductor		SF07C													TD	TD	TD	TD	3 years	4 hours
	F99: Standpipe/Sprinkler/Yard Hydrants	D	SF99C							TD	TD					TD	TD			6 years	4 hours
	F60: Fire Guard for Torch Operation		SF60C					TD												6 years	4 hours
	G60: Flam. Gas Torch Use for Cut/Weld		SG60C					TD												6 years	4 hours
	G98: Storage/Use of Flammable/Combustible Gas		SG98C					X	X						X	TD	TD	TD	TD	6 years	4 hours
	A35: Operation of Air Compressors		SA35C				X	X	X		X				X					6 years	4 hours
	P15: Dispensing Motor Fuels		SP15C					TD												6 years	4 hours
	W96: Portable Extinguisher Inspection		SW96C			TD	TD	TD	TD	TD	TD		TD	TD	TD	TD	TD	TD	TD	6 years	4 hours

Legend:

X – Employee must attend this training

TD- Task Driven

* Employees are given these modules during induction

** Employees that are required to attend Track Flagging take Track Safety Qualification one time as a pre-requisite.

Code:

A Employees who are defined in the HCP P/I will attend this module and will attend an annual Audiometric test.

B Employees required to work Above Lead Action Level defined by the P/I will attend these classes.

C Given to Supervisors which relate to hazardous waste management.

D Given to employees who perform Fire Suppression

E Forklift/Hi-Lo is the pre-requisite for Supervisors that will attend PIT047 to conduct employee evaluations

F Given to Supervisors who supervise welding operations

G Employees that are hired with Welding Licenses only require Torch Use (TOR120) which is provided at Induction.

H NYS Asbestos Handler/Supervisor classes are provided off property by a vendor - no ELM entry

Note: Trainee, Helper and Apprenticeship titles should attend Right-to-Know and trade specific training.

Cycle Annually = cycling in progession no less than 1 module (6-16) annually.

Title Abbreviations:

PTE: Professional Technical Employees
SMA: Structure Maintainer A (Carpenter)
SMB: Structure Maintainer B (Mason)
SMC: Structure Maintainer C (Iron Worker)
SMD: Structure Maintainer D (Thin Smith)
SME: Structure Maintaner E (Plumber)
SMG: Structure Maintaner G (Painter)
ATD: Assistant Train Dispatcher
TKW: Trackworker
TKW SO: Trackworker Specialist Operator
TEM: Track Equipment Maintainer
MS I/II: Maintenance Supervisor I/II

Revised: 11/22/24

DIVISION OF FACILITIES
SAFETY TRAINING MATRIX
2025

				TITLES																	
	COURSE NAMES	CODE	COURSE #	HPPT	SMA	SMB	SMC	SMD	SME	SMF	SMG	HVAC Mtr	V&D Mtr	LM/H	SSE	SE	MS I	MS II	GS/SUPT	FREQUENCY	HOURS
RIGHT TO KNOW	Mod. 1: Chemical Safety		HZCMGHS1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 2: Recognition		HZCMGHS2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 3: Control		HZCMGHS3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 4: Supv. Overview MSDS & Labels		HZCMGHS4	X											X	X	X	X	X	Once *	Self paced
	Mod. 5: Supv. Overview Hazards		HZCMGHS5	X											X	X	X	X	X	Once *	Self paced
	Mod. 6: Organic Solvents		HZCMGHS6				X	X	X	X	X	X	X	X						Cycle Annually	Self paced
	Mod. 7: Fuels/Lubricants		HZCMGHS7	X			X					X			X	X				Cycle Annually	Self paced
	Mod. 8: Coatings, Adhesives & Sealants		HZCMGHS8		X			X	X	X	X	X	X	X						Cycle Annually	Self paced
	Mod. 9: Gases		HZCMGHS9	X	X		X	X				X			X	X	TD			Cycle Annually	Self paced
	Mod. 10: Metals and Metal Salts		HZCMGHS10				X	X				X								Cycle Annually	Self paced
	Mod. 11: Corrosives		HZCMGHS11	X		X	X	X	X	X	X	X	X	X		X				Cycle Annually	Self paced
	Mod. 12: Toxic Particulates	B	HZCMGHS12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		Annual	Self paced
	Mod. 13: Nuisance Dusts		HZCMGHS13	X	X	X	X	X	X	X	X	X	X	X	X	X	TD			Cycle Annually	Self paced
	Mod. 14: Coolants & Additives		HZCMGHS14	X								X	X		X	X				Cycle Annually	Self paced
	Mod. 15: Pesticides/Preservatives		HZCMGHS15											X						Cycle Annually	Self paced
	Mod. 16: Cleaners		HZCMGHS16									X	X							Cycle Annually	Self paced
GENERAL SAFETY	Hearing Conservation	A	SS11I	X	X	X	X		X	X	X		X	X		X	X	X	TD	Annual	Self paced
	Bio-Infectious Waste		SS12I	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		Annual	Self paced
	Asbestos Awareness		STAATI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		Annual	Self paced
	OSHA Lead Worker (Module D)	B	LDATI	TD	TD	TD	TD	X	TD	TD	X	TD	TD							Annual	Self paced
	Lead Comp Person (Above Action Level)	B	SSTLCP														TD	TD		Annual	8 hours
	Workplace Violence Prevention		MDTTRN025	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Annual	Self paced
	Actions Employees Can Take (Dupont)		ECTSTA	X	X	X	X	X	X	X	X	X	X	X	X	X				Once *	4 hours
	Safety Management		DUPST														X	X	X	Once	16 hours
	Respiratory Protection (Above Action Level)	B	SS7	X	X	X	X		X		X		X	X		TD	TD	TD		Annual	8 hours
	Personal Protective Equipment		STPPEQ														X	X		Once	4 hours
	PPE Appendix E (Verbal by Supv to Hrly)		DOSPPE	X	X	X	X	X	X	X	X	X	X	X	X	X				Once	Self paced
	Hazard Waste SARA III/Refresher	C	SS9/SS91												X		X	X		Once/Annual	8 hours/8 hours
	Hazard Waste Summary (given w/RTK12)		SS9SSD		X	X	X	X	X	X	X	X	X	X	X	X	X	X		Annual	Handout
	Confined Space/Refresher		SS51/SS52	X	TD	TD			TD				X	TD		X	TD	TD		Once/Annual	24 hours/16 hrs
	Fall Protection (falls or heights greater 6 ft)		STFLLP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		Once	8 hours
	Lockout/Tagout		LOTOTI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		3 years	Self paced
	Safety Awareness/Back Safety (IOD)		SSSA02	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD			Once *	8 hours
	Fire Prevention & Passenger Evacuation		SSF1	TD	X	X	X	X	X	X	X	X	X	X	TD	TD	X	X		6 years	8 hours
	National Incident Mgmt Safety Aware -NIMS		SNIMAI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		Once	1 hour
	NIMS ICS-100/200/700		ICS100/200/700																X	Once *	Web based/Self paced
	Silica		RCSSTC	TD	TD	TD			TD								TD			Annual	View Video
	Accident Investigation Workshop		SSAIW												X		X	X	X	Once *	View Video
	Universal Waste Awareness (Bill of Lading)		SOHUW											X						Annual	Handout
	Storm Water Awareness		SSWTV	X	TD	TD	TD	TD	TD	TD	TD	X	X	TD	X	X	TD	TD	TD	Annual	View Video
	Infrastructure Supervisor Refresher		MSR1614														X	X		3 years	16 hours

DIVISION OF FACILITIES
SAFETY TRAINING MATRIX
2025

	COURSE NAMES		COURSE #	TITLES																FREQUENCY	HOURS
				HPPT	SMA	SMB	SMC	SMD	SME	SMF	SMG	HVAC Mtr	V&D Mtr	LM/H	SSE	SE	MS I	MS II	GSM/GS/ SUPT		
TECHNICAL	Forklift/Hi-Lo	E	CS3	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD		Once	16 hours
	Personal Platform Lift		TCP1	TD		TD		X	TD		TD	TD	TD	X	TD	TD	TD			Once	16 hours
	Powered Industrial Truck Evaluation		PITEVA	TD								TD	TD		TD	TD				3 years	Self paced
	Power Industrial Truck Supervisors	E	PIT047												TD		TD	TD	TD	Once	8 hours
	Welding - Basic	F	MVW003				TD								TD					Once	40 hours
	Welding - Advanced	F	MVW006				TD													Once	40 hours
	Welding - Silver Brazing & Soldering		MVW004	X			TD		X			X				TD				Once	24 hours
	Welding Safety for Supervisors	G	IWS082														TD	TD		Once	8 hours
	Track Flagging/Refresher		TKFR08		X	X	X	X	X	X	X	X	X	X			X	X	X	Once/Annual	72 hrs/8 hrs
	Track Safety/Refresher		TSR808	X											X	X				Once**/2 years	8 hours
	EPA Certification											X					TD			Once	16 hours
	Track Safety Inspections		TSI809														TD	TD		Once	8 hours
CERTIFICATE OF FITNESS	C92: Store/Use Flam/Comb Liquids		SC92C	TD								TD			TD	TD	TD	TD		6 years	4 hours
	E21: Ammo-Activated Tool		SE21C		X	X	X	X	X					X			TD	TD		6 years	4 hours
	F07: Fire & Emergency Drill Conductor		SF07C		TD	TD	TD	TD	TD	TD	TD			TD			TD	TD		3 years	4 hours
	F99: Standpipe/Sprinkler/Yard Hydrants	D	SF99C						TD				TD				TD	TD		6 years	4 hours
	F60: Fire Guard for Torch Operation		SF60C	X			X	X	X			X			TD	X	TD	TD		6 years	4 hours
	G60: Flam. Gas Torch Use for Cut/Weld		SG60C	X			TD	TD	TD			X			TD	X	TD	TD		6 years	4 hours
	G98: Storage/Use of Flammable/Combustible Ga		SG98C	X			X	TD	X			X			X	X	TD	TD		6 years	4 hours
	A35: Operation of Air Compressors	H	SA35C		X	X	X	TD	X			X	X		X	X	TD	TD		6 years	4 hours
	P15: Dispensing Motor Fuels		SP15C	X			TD					X					TD	TD		6 years	4 hours
	P99: Supv Low PSI Oil Burner Operation		SP99C									X					TD	TD		6 years	4 hours
	W96: Portable Extinguisher Inspection		SW96C	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD		6 years	4 hours

Legend:

X – Employee must attend this training.

TD- Task Driven

* Employees are given these modules during inductic

** Employees that are required to attend Track Flagging take Track Safety Qualification one time as a pre-requisite.

Code:

A Employees who are defined in the HCP P/I will attend this module and will attend an annual Audiometric test.

B Employees required to work Above Lead Action Level defined by the P/I will attend these classes. Lead Module supersedes RTK 12.

C Given to Supervisors which relate to hazardous waste management

D Given to employees who perform Fire Suppression

E Forklift/Hi-Lo is the pre-requisite for Supervisors that will attend PIT047 to conduct employee evaluations.

F Employees that are hired with Welding Licenses only require Torch Use (TOR120) which is provided at Induction

G Given to Supervisors who supervise welding operations

H A35 Certification is only used for non-portable 100 psi or greater indoor compressors

Title Abbreviations:

HPPT: High Pressure Plant Tende

SMA: Structure Maintainer A

SMB: Structure Maintainer B

SMC: Structure Maintainer C

SMD: Structure Maintainer D

SME: Structure Maintainer E

SMG: Structure Maintainer G

HVAC Mtr: Heating Ventilation Air Conditioning Maintainer (T2

V&D: Ventilation & Drainage Maintainer (T2

LM/H: Light Maintainer/Helpe

SSE: Senior Stationary Enginee

SE: Stationary Enginee

MS I/II: Maintenance Supervisor I/I

Note: Trainee, Helper and Apprenticeship titles should attend Right-to-Know and trade specific trainin

Cycle Annually = cycling in progession no less than 1 module (6-18) annually.

Revised: 2/18/2025

MAINTENANCE OF WAY, DIVISION OF INFRASTRUCTURE
SAFETY TRAINING MATRIX
2025

	COURSE NAMES	CODE	COURSE #	SMA	SMB	SMC	SMD	SME	SMG	Mtr (HYD)	LM	MS I	MS II	GS/ SUPT	FREQUENCY	HOURS
RIGHT TO KNOW	Mod. 1: Chemical Safety		HZCMGHS1	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 2: Recognition		HZCMGHS2	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 3: Control		HZCMGHS3	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 4: Supv. Overview MSDS & Labels		HZCMGHS4									X	X	X	Once *	Self paced
	Mod. 5: Supv. Overview Hazards		HZCMGHS5									X	X	X	Once *	Self paced
	Mod. 6: Organic Solvents		HZCMGHS6			X	X	X	X	X	X				Cycle Annually	Self paced
	Mod. 7: Fuels/Lubricants		HZCMGHS7			X									Cycle Annually	Self paced
	Mod. 8: Coatings, Adhesives & Sealants		HZCMGHS8	X	X	X	X	X	X	X	X				Cycle Annually	Self paced
	Mod. 9: Gases		HZCMGHS9	X		X	X					TD			Cycle Annually	Self paced
	Mod. 10: Metals and Metal Salts		HZCMGHS10			X	X								Cycle Annually	Self paced
	Mod. 11: Corrosives		HZCMGHS11		X	X	X	X	X	X	X				Cycle Annually	Self paced
	Mod. 12: Toxic Particulates	B	HZCMGHS12	X	X	X	X	X	X	X	X	X	X		Annual	Self paced
	Mod. 13: Nuisance Dusts		HZCMGHS13	X	X	X	X	X	X	X	X	TD			Cycle Annually	Self paced
	Mod. 14: Coolants & Additives		HZCMGHS14							X					Cycle Annually	Self paced
	Mod. 15: Pesticides/Preservatives		HZCMGHS15												Cycle Annually	Self paced
	Mod. 16: Cleaners		HZCMGHS16												Cycle Annually	Self paced
GENERAL SAFETY	Hearing Conservation	A	SS11I	X	X	X		X	X	X	X	X			Annual	Self paced
	Bio-Infectious Waste		SS12I	X	X	X	X	X	X	X	X	X	X		Annual	Self paced
	Asbestos Awareness		STAATI	X	X	X	X	X	X	X	X	X	X		Annual	Self paced
	OSHA Lead Worker (Module D)	B	LDATI	TD	TD	TD	TD	TD	TD	TD	TD				Annual	Self paced
	Lead Comp Person (Above Action Level)	B	SSTLCP									TD	TD		Annual	8 hours
	Workplace Violence Prevention		MDTTRN025	X	X	X	X	X	X	X	X	X	X	X	Annual	Self paced
	Actions Employees Can Take (Dupont)		ECTSTA	X	X	X	X	X	X	X	X				Once *	4 hours
	Safety Management		DUPST									X	X	X	Once	16 hours
	Respiratory Protection (Above Action Level)	B	SS7	TD	X	X	X	X	X		TD	TD	TD		Annual	8 hours
	Personal Proctective Equipment		STPPEQ									X	X		Once	4 hours
	PPE Appendix E (Verbal by Supv to Hrly)		DOSPPE	X	X	X	X	X	X	X	X				Once	Self paced
	Hazard Waste SARA III/Refresher	C	SS9/SS91			TD			TD	TD	TD	TD	TD		Once/Annual	8 hours/8 hours
	Hazard Waste Summary (given w/RTK12)		SS9SSD		TD	TD			TD		TD				Annual	Handout
	Comprehensive OSHA		OSHAGC									TD	TD	TD	As Requested	16 hours
	Confined Space/Refresher		SS51/SS52	TD	TD	TD	TD	TD	TD	X	TD	TD	TD		Once/Annual	24 hours/16 hrs
	Fall Protection (falls or heights greater 6 ft)		STFLLP	TD	TD	X	TD	TD	TD	TD	X	TD	TD		Once	8 hours
	Lockout/Tagout		LOTOTI	X	X	X	X	X	X	X	X	X	X		3 years	Self paced
	Safety Awareness/Back Safety (IOD)		SSSA02	TD	TD	TD	TD	TD	TD	TD	TD	TD			Once *	8 hours
	Fire Prevention & Passenger Evacuation		SSF1	X	X	X	X	X	X	X	X	X	X		6 years	8 hours
	National Incident Mgmt Safety Aware.-NIMS		SNIMAI	X	X	X	X	X	X	X	X	X	X		Once	1 hour
	NIMS ICS-100/200/700		ICS100,200,700										X	X	Once *	Web based/Self paced
	Silica		RCSSTC	TD	TD			TD							Annual	View Video
	Accident Investigation Workshop		SSAIW									X	X	X	Once *	View Video
	Storm Water Awareness		SSWTV	TD	TD	TD	TD	TD	TD	X	TD	TD	TD	TD	Annual	View Video
	Infrastructure Supervisor Refresher		MSR1614									X	X		3 years	16 hours

MAINTENANCE OF WAY, DIVISION OF INFRASTRUCTURE
SAFETY TRAINING MATRIX
2025

	COURSE NAMES		COURSE #	SMA	SMB	SMC	SMD	SME	SMG	Mtr (HYD)	LM	MS I	MS II	G/S SUPT	FREQUENCY	HOURS
TECHNICAL	Forklift/Hi-Lo	G	CS3	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	Once	16 hours
	Personal Platform Lift		TCP1	TD	TD	TD	TD	TD	TD	TD	TD	TD			Once	16 hours
	Boom Truck Operator		TC4			TD									Once	24 hours
	Powered Industrial Truck Evaluation		PITEVA	TD	TD	TD	TD	TD	TD	TD	TD				3 years	Self paced
	Power Industrial Truck Supervisors	G	PIT047									TD	TD	TD	Once	8 hours
	Welding - Basic	H	MVW003			TD									Once	40 hours
	Welding - Advanced	H	MVW006			TD									Once	40 hours
	Welding - Silver Brazing & Soldering	H	MVW004			TD		X							Once	24 hours
	Welding Safety for Supervisors	I	IWS082									TD	TD		Once	8 hours
	Track Flagging/Refresher		TKFR08	X	X	X	X	X	X	X	X	X	X	X	Once/Annual	72 hrs/8 hrs
	Track Safety/Refresher		TSR808												Once**/2 years	8 hours
	EPA Certification											TD			Once	16 hours
	SPCC/SPR (oil or antifreeze exceed 55 gal)											TD	TD		2 years	View Video
	Track Safety Inspections		TSI809									TD	TD		Once	8 hours
CERTIFICATE OF FITNESS	C92: Store/Use Flam/Comb Liquids		SC92C									TD	TD		6 years	4 hours
	E21: Ammo-Activated Tool		SE21C	TD								TD	TD		6 years	4 hours
	F07: Fire & Emergency Drill Conductor	E	SF07C									TD	TD		3 years	4 hours
	F99: Standpipe/Sprinkler/Yard Hydrants	D	SF99C					TD		TD		TD	TD		6 years	4 hours
	F60: Fire Guard for Torch Operation		SF60C			TD		X	X			TD	TD		6 years	4 hours
	G60: Flam. Gas Torch Use for Cut/Weld		SG60C			TD		X	X			TD	TD		6 years	4 hours
	G98: Storage/Use of Flammable/Combustible		SG98C			X	X	X				TD	TD		6 years	4 hours
	A35: Operation of Air Compressors	J	SA35C		TD	TD	TD			X		TD	TD		6 years	4 hours
	P15: Dispensing Motor Fuels	F	SP15C			TD						TD	TD		6 years	4 hours
	P99: Supv Low PSI Oil Burner Operation		SP99C									TD	TD		6 years	4 hours
	W96: Portable Extinguisher Inspection		SW96C	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD		6 years	4 hours

Legend:

X -- Employee must attend this training.

TD- Task Driven

* Employees are given these modules during induction

** Employees that are required to attend Track Flagging take Track Safety Qualification one time as a pre-requisite.

Code:

A Employees who are defined in the HCP P/I will attend this module and will attend an annual Audiometric test.

B Employees required to work Above Lead Action Level defined by the P/I will attend these classes. Lead Module supersedes RTK 12.

C Given to Supervisors which relate to hazardous waste management

D Given to employees who perform Fire Suppression

E Bergen Shop, Tiffany Shop, Glendale Shop, and Cozine Shop Location Managers or designated representatives must hold this certification

F Tiffany Shop, Cozine Shop and Bergen Shop employees who perfom this function must hold this certification.

G Forklift/Hi-Lo is the pre-requisite for Supervisors that will attend PIT047 to conduct employee evaluations.

H Employees that are hired with Welding Licenses only require Torch Use (TOR120) which is provided at Induction

I Given to Supervisors who supervise welding operations

J A35 Certification is only used for non-portable 100 psi or greater indoor compressors

Note: Trainee, Helper and Apprenticeship titles should attend Right-to-Know and trade specific training.

Title Abbreviations:

CTA: Cleaner, TA
SMA: Structure Maintainer A
SMB: Structure Maintainer B
SMC: Structure Maintainer C
SMD: Structure Maintainer D
SME: Structure Maintainer E
SMG: Structure Maintainer G
V&D Mtr: Ventilation and Drainage Maintainer (T26)
LM: Light Maintainer
MS I/II: Maintenance Supervisor I/II

Cycle Annually = cycling in progession no less than 1 module (6-16) a *Revised: 11/22/24*

DIVISION OF SERVICE DELIVERY
SAFETY TRAINING MATRIX
2025

				TITLES												
	COURSE NAMES	CODE	COURSE #	CR	CR FLAG/WT	TO	TO WT	TW	ATD	TD/YD	CTD	TSS	SUPT	G SUPT	FREQUENCY	HOURS
RIGHT TO KNOW	Mod. 1: Chemical Safety		HZCMGHS1	X	X	X	X	X	X	X	X	X	X	X	Once*	Self paced
	Mod. 2: Recognition		HZCMGHS2	X	X	X	X	X	X	X	X	X	X	X	Once*	Self paced
	Mod. 3: Control		HZCMGHS3	X	X	X	X	X	X	X	X	X	X	X	Once*	Self paced
	Mod. 4: Supv. Overview MSDS & Labels		HZCMGHS4						X	X	X	X	X	X	Once*	Self paced
	Mod. 5: Supv. Overview Hazards		HZCMGHS5						X	X	X	X	X	X*	Once*	Self paced
	Mod. 6: Organic Solvents		HZCMGHS6	X	X	X	X								Cycle Annually	Self paced
	Mod. 7: Fuels/Lubricants		HZCMGHS7	X	X	X	X								Cycle Annually	Self paced
	Mod. 8: Coatings, Adhesives & Sealants		HZCMGHS8													Self paced
	Mod. 9: Gases		HZCMGHS9													Self paced
	Mod. 10: Metals and Metal Salts		HZCMGHS10													Self paced
	Mod. 11: Corrosives		HZCMGHS11													Self paced
	Mod. 12: Toxic Particulates		HZCMGHS12	X	X	X	X	X							Annual	Self paced
	Mod. 13: Nuisance Dusts		HZCMGHS13	X	X	X	X								Annual	Self paced
	Mod. 14: Coolants and Additives		HZCMGHS14													Self paced
	Mod. 15: Pesticides/Preservatives		HZCMGHS15													Self paced
	Mod. 16: Cleaners		HZCMGHS16			X	X								Annual	Self paced
GENERAL SAFETY	Hearing Conservation	A	SS11I	X	X	X			X			X			Annual	Self paced
	Bio/Infectious Waste		SS121	X	X	X	X	X	X	X	X	X	X		Annual	Self paced
	Accident Investigation Workshop		SSAIW						X	X	X	X	X	X	Once*	Video
	Safety Management		DUPST						X	X	X	X	X	X	Once*	16 hours
	Workplace Violence Prevention		MDTTRN025	X	X	X	X	X	X	X	X	X	X	X	Annual	Self paced
	Actions Employees Can Take (Dupont)		ECTSTA	X	X	X	X	X							Once*	4 hours
	Respiratory Protection (Above Action Level)		SS7		X		X					X**			Annual	8 hours
	Personal Protective Equipment (PPE)		STPPEQ						X	X	X	X	X	X	Once*	4 hours
	PPE Appendix E (verbal by Supv to Hrly)		DOSPPE	X	X	X	X	X							Once	Self paced
	Fire Prevention & Passenger Evacuation		SSF1	X	X	X	X	X	X	X	X	X	X		3 years	8 hours
	MSA Response Escape Respirator Hood		EHDOS1	X	X	X	X					X			Annual	10 min video
	Silica		RCSSTC		TD							TD			Annual	Video
	National Incident Mgmt Safety Aware - NIMS		SNIMAI	X	X	X	X	X	X	X	X	X			Once	1 hour
	NIMS ICS - 100/200/700		ICS100/200/700								X	X	X	X	Once	Web based/Self paced

DIVISION OF SERVICE DELIVERY
SAFETY TRAINING MATRIX
2025

	COURSE NAMES	CODE	COURSE #	TITLES											FREQUENCY	HOURS
				CR	CR FLAG/WT	TO	TO WT	TW	ATD	TD/YD	CTD	TSS	SUPT	G SUPT		
TECHNICAL	Track Flagging/Refresher		TKFR08		X				X	X		X	X	X	Once/Annual	72 hrs/8 hrs
	Track Safety/Refresher		TSR808	X	X	X	X	X	X	X		X	X	X	Once***/2 years	8 hours
	Supervisor Refresher		OT10/OD12						X	X	X	X			3 years	16 hours
	Train Operator Refresher		OT132S			X	X								3 years	24 hours
	Conductor Refresher		OC32	X	X										3 years	32 hours
	Tower Operator Refresher		OT163					X							3 years	16 hours
CERT OF FITNESS	C92: Store/Use Flam/Comb Liquids		SC92C												6 years	4 hours
	E21: Ammo-Activated Tool		SE21C												6 years	4 hours
	F07: Fire & Emergency Drill Conductor		SF07C									TD	TD		3 years	4 hours
	F60: Fire Guard for Torch Operation		SF60C												6 years	4 hours
	G60: Flam. Gas Torch Use for Cut/Weld		SG60C												6 years	4 hours
	G98: Storage/Use of Flammable/Combustible Gas		SG98C												6 years	4 hours
	A35: Operation of Air Compressors		SA35C												6 years	4 hours
	P35: Dispensing Motor Fuels		SP35C												6 years	4 hours
	W96:Portable Extinguisher Inspection		SW96C												6 years	4 hours

Legend:

X – All employees must attend this training.

TD – Task Driven

* Employees are given these modules during induction

** Train Service Supervisors that are assigned to Vacuum Train 2 or work in proximity to an R156 locomotive are required to be Respirator qualified (PI Appendix A, Footnote 1-2)

*** Employees that are required to attend Track Flagging take Track Safety Qualification one time as a pre-requisite.

Code:

A Employees who are defined in the HCP P/I will attend this module and will attend an annual Audiometric test.
Cycle Annually = cycling in progession no less than 1 module annually.

Title Abbreviations:

CR: Conductor
CR FLAG/WT: Conductor Flagging/Work Trains
TO: Train Operator
TO WT: Train Operator Work Trains
TW: Tower Operator
ATD: Assistant Train Dispatcher
TD/YD: Train Dispatcher/Yard Dispatcher
CTD: Console Dispatcher
TSS: Train Service Supervisor
Supt: Superintendent
G SUPT: General Superintendent

Revised: 12/22/24

DIVISION OF STATION ENVIRONMENT OPERATIONS
TRAINING MATRIX
2025

				TITLES															
	COURSE NAMES	CODE	COURSE #	CTA	CTA ENV	CTA TT	CTA HITT	SA	S/S ENV	S/S TT	S/S HITT	S/S	SMD	SMF	MS I/II	GSS/ GSM/ DGSM	DCSM	FREQUENCY	HOURS
RIGHT TO KNOW	Mod. 1: Chemical Safety		HZCMGHS1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 2: Recognition		HZCMGHS2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 3: Control		HZCMGHS3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 4: Supv. Overview MSDS & Labels		HZCMGHS4						X	X	X	X			X	X	X	Once *	Self paced
	Mod. 5: Supv. Overview Hazards		HZCMGHS5						X	X	X	X			X	X	X	Once *	Self paced
	Mod. 6: Organic Solvents	D	HZCMGHS6	X	X	X	X	X	X	X	X	X	X	X				Cycle Annually	Self paced
	Mod. 8: Coatings, Adhesives & Sealants		HZCMGHS8										X	X				Cycle Annually	Self paced
	Mod. 9: Gases		HZCMGHS9										X					Cycle Annually	Self paced
	Mod. 10: Metals and Metal Salts		HZCMGHS10										X					Cycle Annually	Self paced
	Mod. 11: Corrosives		HZCMGHS11	X	X	X	X		***	***	***	***	X	X		***	***	Cycle Annually	Self paced
	Mod. 12: Toxic Particulates		HZCMGHS12	X	X	X	X		X	X	X	X	X	X	X			Annual	Self paced
	Mod. 13: Nuisance Dusts		HZCMGHS13	X	X	X	X		***	***	***	***	X	X		***	***	Cycle Annually	Self paced
	Mod. 16: Cleaners		HZCMGHS16	X	X	X	X		X	X	X	X						Cycle Annually	Self paced
GENERAL SAFETY	Hearing Conservation	B	SS11I		X	X	X											Annual	Self paced
	Bio-Infectious Waste	A	SS12I	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Annual	Self paced
	Asbestos Awareness	C	STAATI	X	X	X	X		X	X	X	X	X	X	X	X	X	Annual	Self paced
	OSHA Lead Worker (Module D)	A	LDATI										TD	TD				Annual	Self paced
	Lead Comp Person (Above Action Level)	A	SSTLCP												TD	TD	TD	Annual	8 hours
	Safety Management		DUPST						X	X	X	X			X	X	X	Once	16 hours
	Workplace Violence Prevention		MDTTRN025	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Annual	Self paced
	Actions Employees Can Take (Dupont)		ECTSTA	X	X	X	X	X					X	X				Once *	4 hours
	Respiratory Protection (Above Action Level)	A	SS7		X		X		X		X							Annual	8 hours
	Personal Protective Equipment		STPPEQ	X	X	X	X		X	X	X	X			X	X	X	Once	4 hours
	PPE Appendix E (Verbal by Supv to Hrly)		DOSPPE	X	X	X	X	X					X	X				Once	Self paced
	Hazard Waste SARA III/Refresher	C	SS9/SS91									TD			X			Once/Annual	8 hours/8 hours
	Haz/Waste Summary (given w/RTK12)		SS9SSD	X	X	X	X						X	X				Annual	Handout
	Confined Space/Refresher		SS51/SS52												TD	TD	TD	Once/Annual	24 hours/16 hrs
	Fall Protection (falls or heights greater 6 ft)		STFLLP	TD	TD	TD	TD		TD	TD	TD	TD	X	X	X	X	X	Once	8 hours
	Lockout/Tagout		LOTOTI										X	X	X	TD	TD	3 years	Self paced
	Fire Prevention & Passenger Evacuation		SSF1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6 years	8 hours
	Accident Investigation Workshop		SSAIW						X	X	X	X			X	X	X	Once *	View Video
	Safety Awareness/Back Safety (IOD)		SSSA02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once*/As Needed (IOD)	8 hours
	Door Operator (Refuse Train)		OT140		TD		TD											Once	2 hours
	National Incident Mgmt Safety Aware -NIMS		SNIMAI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once	1 hour
	NIMS ICS100, ICS200 & ICS700		ICS100, 200, 700													X	X	Once *	Web based/Self paced
	NIMS ICS300 & ICS400		ICS300, ICS400														X	Once *	outside vendor class
	MSA Response Escape Respirator Hood		EHDOS1					X	X	X	X	X				X	X	Annual	10 min video
	Restarting of Escalators		IRE041	X	X	X	X	X	X	X	X	X				X	X	3 years	4 hours
	Cleaner Transit Refresher		ECTSTA	X	X	X	X											3 years	8 hours
	Cleaner Scrubber Machine Refresher		SCRREF	X	X	X	X			X		X				TD		3 years	8 hours
	Supervisors Onward to Advancing Roles		SOARS						X	X	X	X			X	X	X	Once *	16 hours

DIVISION OF STATION ENVIRONMENT OPERATIONS
TRAINING MATRIX
2025

				TITLES															
	COURSE NAMES		COURSE #	CTA	CTA ENV	CTA TT	CTA HITT	SA	S/S ENV	S/S TT	S/S HITT	S/S	SMD	SMF	MS I/II	GSS/ GSM/ DGSM	DCSM	FREQUENCY	HOURS
TECHNICAL	Track Flagging/Refresher	G	TKFR08			X				X			X	X	X	TD	TD	Once/Annual	72 hrs/8 hrs
	Track Safety/Refresher		TSR808	X	X		X		X		X	X				X	X	Once**/2 years	8 hours
	Track Safety Inspections		TSI809												X	X	X	Once	8 hours
	Forklift/Hi-Lo	E	CS3	TD	TD	TD	TD		TD	TD	TD	TD	TD	TD	TD	TD	TD	Once	16 hours
	Forklift Stacker		FLS213	TD	TD	TD	TD		TD	TD	TD	TD				TD		Once	8 hours
	Personal Platform Lift		TCP1	TD	TD	TD	TD		TD	TD	TD	TD				TD		Once	16 hours
	Bucket Truck (Single)		IBT169	TD	TD	TD	TD		TD	TD	TD	TD				TD		Once	16 hours
	Articulated Crane/Boom Truck		IPF246										TD	TD				Once	24 hours
	Crane Safety for Supervisors		TCS7												TD			Once	8 hours
	Crane Universal Hand Signals		IHS027										TD	TD				Once	8 hours
	Basic Rigging		VBR713										TD	TD				Once	8 hours
	Welding - Basic	H	MVW003															Once	40 hours
	Welding - Advanced	H	MVW006															Once	40 hours
	Welding Safety for Supervisors	I	IWS082												TD			Once	8 hours
	Powered Industrial Truck Evaluation		PITEVA	TD	TD	TD	TD		TD	TD	TD	TD	TD	TD				3 years	Self paced
	Powered Industrial Truck Supervisors	E	PIT047												TD	TD	TD	Once	8 hours
CERT OF FITNESS	C92: Store/Use Flam/Comb Liquids		SC92C												TD	TD	TD	6 years	4 hours
	E21: Ammo-Activated Tool		SE21C										X		X			6 years	4 hours
	F07: Fire & Emergency Drill Conductor		SF07C										TD	TD	TD			3 years	4 hours
	F99: Standpipe/Sprinkler/Yard Hydrants		SF99C												TD			6 years	4 hours
	F60: Fire Guard for Torch Operation		SF60C										X		TD			6 years	4 hours
	G60: Flam. Gas Torch Use for Cut/Weld		SG60C										TD		TD			6 years	4 hours
	G98: Storage/Use of Flammable/Combust		SG98C										TD		TD			6 years	4 hours
	A35: Operation of Air Compressors		SA35C										TD		TD			6 years	4 hours
	P15: Dispensing Motor Fuels		SP15C												TD			6 years	4 hours
	W96: Portable Extinguisher Inspection		SW96C						X	X	X	X	TD	TD	TD	TD	TD	6 years	4 hours

Legend:

X -- Employee must attend this training.
TD- Task Driven
* Employees are given these modules during induction
** Employees that are required to attend Track Flagging take Track Safety Qualification one time as a pre-requisite
*** Supervisors received module as an hourly employee

Code:

A Employees required to work Above Lead Action Level defined by the P/I will attend these classes
B Employees who are defined in the HCP P/I will attend this module and will attend an annual Audiometric test
C Given to Supervisors which relate to hazardous waste management
D Given to Station Agents Annually
E Forklift/Hi-Lo is the pre-requisite for Supervisors that will attend PIT047 to conduct employee evaluations
G Only required for GSS/GSM in Track Tile Operation
H Employees that are hired with Welding Licenses only require Torch Use (TOR120) which is provided at Induction
I Given to Supervisors who supervise welding operations

Note: Trainee, Helper and Apprenticeship titles should attend Right-to-Know and trade specific training.
Cycle Annually = cycling in progession no less than 1 module (6-16) annually.

Title Abbreviations:

CTA: Cleaner, TA
CTA ENV: Cleaner Environmental (Mobile & Refuse)
CTA TT: Cleaner Track Tile
CTA HITT: Cleaner HITT Team District
SA: Station Agent
S/S ENV: Station Supervisor Environmental (Mobile & Refuse)
S/S TT: Station Supervisor Track Tile
S/S HITT: Station Supervisor HITT Team District
S/S: Station Supervisor
SMD: Structure Maintainer D
SMF: Structure Maintainer F
MSI/ II: Maintenance Supervisor I/II
GSS/GSM/DGSM: Group Station Supt/Group Station Mgr/Dept Group Station Mgr
DCSM: District Customer Service Manager

Revised: 11/22/2024

MAINTENANCE OF WAY, DIVISION OF TRACK
SAFETY TRAINING MATRIX
2025

			TITLES																
			Trackworker Specialty Title																
	COURSE NAMES	CODE	COURSE #	TKW	TkIns	W/B	Ch	CLPR	SO	CO	TEM	TEHP(PD)	PDM	MSI	MSII	MSI PD	MSII PD	GS/SUPT	FREQUENCY	HOURS
RIGHT TO KNOW	Mod. 1: Chemical Safety		HZCMGHS1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 2: Recognition		HZCMGHS2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 3: Control		HZCMGHS3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once *	Self paced
	Mod. 4: Supv. Overview MSDS & Labels		HZCMGHS4											X	X	X	X	X	Once *	Self paced
	Mod. 5: Supv. Overview Hazards		HZCMGHS5											X	X	X	X	X	Once *	Self paced
	Mod. 6: Organic Solvents		HZCMGHS6	X	X	X	X	X	X	X	X	X	X						Cycle Annually	Self paced
	Mod. 7: Fuels/Lubricants		HZCMGHS7	X	X	X	X	X	X	X	X	X	X						Cycle Annually	Self paced
	Mod. 8: Coatings, Adhesives & Sealants		HZCMGHS8								X								Cycle Annually	Self paced
	Mod. 9: Gases		HZCMGHS9	X	X	X	X	X	X	X									Cycle Annually	Self paced
	Mod. 10: Metals and Metal Salts		HZCMGHS10	X	X	X	X	X	X	X	X	X	X						Cycle Annually	Self paced
	Mod. 11: Corrosives		HZCMGHS11	X	X	X	X	X	X	X									Cycle Annually	Self paced
	Mod. 12: Toxic Particulates		HZCMGHS12	X	X	X	X	X	X	X	X			X	X	X	X		Annual	Self paced
	Mod. 13: Nuisance Dusts		HZCMGHS13	X	X	X	X	X	X	X	X								Cycle Annually	Self paced
	Mod. 14: Coolants and Additives		HZCMGHS14									X	X						Cycle Annually	Self paced
	Mod. 15: Pesticides/Preservatives		HZCMGHS15	X	X	X	X	X	X	X		X	X						Cycle Annually	Self paced
	Mod. 16: Cleaners		HZCMGHS16																Cycle Annually	Self paced
GENERAL SAFETY	Hearing Conservation	A	SS11I	X	X	X	X	X	X	X	TD			X	X			TD	Annual	Self paced
	Bio-Infectious Waste		SS12I	X	X	X	X	X	X	X	X	X	X	X	X	X	X		Annual	Self paced
	Asbestos Awareness		STAATI	X	X	X	X	X	X	X	X	X	X	X	X	X	X		Annual	Self paced
	OSHA Lead Worker (Module D)	G	LDATI			X					TD		TD						Annual	Self paced
	Workplace Violence Prevention		MDTTRN025	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Annual	Self paced
	Actions Employees Can Take (Dupont)		ECTSTA	X	X	X	X	X	X	X	X	X	X						Once *	4 hours
	Safety Management		DUPST											X	X	X	X	X	Once	16 hours
	Respiratory Protection	B	SS7	X	X	X	X	X	X	X		TD	TD	TD	TD	TD	TD		Annual	8 hours
	Personal Protective Equipment		STPPEQ											X	X	X	X		Once	4 hours
	PPE Appendix E (Verbal by Supv to Hrly)		DOSPPE	X	X	X	X	X	X	X	X	X	X						Once	Self paced
	Hazard Waste/SARAIII	C	SS9/SS91											TD	TD	TD	TD		Annual	8 hours
	Haz/Waste Summary (given w/RTK 12)		Handout																Annual	Handout
	Comprehensive OSHA		OSHAGC											TD	TD	TD	TD	TD	As Requested	16 hours
	Fall ProtectionTrack (falls/heights greater 6 ft)		STFLLP	TD	TD	TD	TD	X	TD	TD		TD	TD	TD	TD	TD	TD		Once	8 hours
	Lock Out/Tag Out (Enhanced ELOTO17)	F	LOTOTI								X	X	X	X	X	X	X		3 years	Self paced
	Fire Prevention & Passenger Evacuation		SSF1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		6 years	6 hours
	Accident Investigation		SSAIW											X	X	X	X	X	Once *	View Video
	National Incident Mgmt Safety Aware - NIMS		SNIMAI	X	X	X	X	X	X	X	X	X	X	X	X	X	X		Once	1 hour
	NIMS ICS-100/200/700		ICS100/2/7															X	Once *	Web based/Self
	Silica		RCSSTC	TD						TD				TD					Annual	View Video
	Safety Awareness/Back Safety (IOD)	J	SSSA02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once*/As Needed	8 hours
	Confined Space/Refresher		SS51/SS52	TD									TD			TD	TD		Once/Annual	24 hours/18 hours

MAINTENANCE OF WAY, DIVISION OF TRACK
SAFETY TRAINING MATRIX
2025

			TITLES																
				Trackworker Specialty Title															
	COURSES		COURSE #	TKW	TkIns	W/B	Ch	CLPR	SO	CO	TEM	TEHP(PD)	PDM	MSI	MSII	MSI PD	MSII PD	GS/SUPT	FREQUENCY	HOURS
TECHNICAL	Track Flagging/Refresher		TKFR08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Once/Annual	72 hours/8 hours
	Track Safety/Refresher		TSR808																Once**/2 years	8 hours
	Overhead Crane Pendant Operator		TCO2						TD		TD	TD	TD						Once	8 hours
	Overhead Crane Operator (Cab)		TCO1							TD									Once	40 hours
	Crane Safety for Supervisors		TCS7											TD	TD	TD	TD		Once	8 hours
	Basic Rigging	H	VBR713							TD									Once	8 hours
	Forklift/Hi-Lo	E	CS3						X	TD	TD	TD	TD	TD	TD	TD	TD	TD	Once	16 hours
	Bobcat/Mustang Operator		IBC169						X										Once	16 hours
	Welding - Basic		MVW003			X							TD						Once	40 hours
	Welding - Advanced		MVW008			X													Once	40 hours
	Welding Safety for Supervisors		IWS082											TD	TD	TD	TD		Once	8 hours
	Track Safety Inspections		TSI809											X	X	X	X		Once	8 hours
	Commercial Driver License (CDL)						X		TD	X	X		TD						Once	40 hours
	Personal Lift Platform		TCP1					X					TD						Once	16 hours
	Powered Industrial Truck Evaluation		PITEVA					X	X	TD	TD	TD	TD						3 years	Self paced
	Power Industrial Truck Supervisors	E	PIT047											TD	TD	TD	TD	TD	Once	8 hours
	NYS Asbestos Supervisor/Refresher		ATC012											TD	TD	TD	TD		Once/Annual	40 hours/8 hours
	NYS Asbestos Handler/Refresher		ATC006									TD	TD						Once/Annual	32 hours/8 hours
	SPCC/SPR (oil or antifreeze exceed 55 gal)													TD	TD	TD	TD		2 years	View Video
	Track Inspector Qual/Refresh		TW1/TW5		X														2 years	160 hours/16 hours
	Track Supervisor/Supt Refresher		TL2											X	X			TD	3 years	16 hours
	Major Track Const/Maint Inspections		TCM249												TD		TD	TD	Once	24 hours
Certificate of Fitness	C92: Store/Use Flam/Comb Liquids		SC92C			X	X	X						TD	TD	TD	TD		6 years	4 hours
	F07: Fire & Emergency Drill Conductor	D	SF07C											TD	TD	TD	TD		3 years	4 hours
	F60: Fire Guard for Torch Operation		SF60C			X	X				TD		TD	TD	TD	TD	TD		6 years	4 hours
	G60: Flam. Gas Torch Use for Cut/Weld		SG60C			X	X					X	TD	X	X	TD	TD		6 years	4 hours
	F99: Standpipe/Sprinkler/Yard Hydrants		SF99C				X												6 years	4 hours
	G98: Storage/Use of Flammable/Combustible Gas		SG98C			X	X	X						X	X	TD	TD		6 years	4 hours
	A35: Operation of Air Compressors		SA35C				X	X						TD	TD	TD	TD		6 years	4 hours
	P15: Dispensing Motor Fuels	I	SP15C				X	X						TD	TD	TD	TD		6 years	4 hours
	W96: Portable Extinguisher Inspection		SW96C	TD	TD	TD	TD	TD	TD	TD	TD	TD	TD	X	X	TD	TD		6 years	4 hours

Legend:

X – Employee must attend this training

TD -- Task Driven

* Employees are given these modules during induction

** Employees that are required to attend Track Flagging take Track Safety Qualification one time as a pre-requisite.

Code:

A Employees who are defined in the HCP P/I will attend this module and will attend an annual Audiometric test

B Employees required to work Above Lead Action Level defined by the P/I will attend these classes

C Given to Supervisors which relate to hazardous waste management

D Linden Shop Location Manager or designated representative must hold this certification

E Forklift/Hi-Lo is the pre-requisite for Supervisors that will attend PIT047 to conduct employee evaluations

F Third Rail Operations (MSI/II & PDM titles) perform periodic inspections and forward Certification forms to DOS Safety

G Employees whose job requires them to Weld will attend this module

H Rigging is required for employees that operate Cranes and/or material handling which involves rigging

I Specialist Chauffer title are only required to attend P15 certification

J Employees who have IOD related injuries will be required to attend this class

Note: Trainee, Helper and Apprenticeship titles should attend Right-to-Know and trade specific training.
All non-crane operators who are responsible for rigging loads are required to take Basic Rigging Training

Title Abbreviations:

TKW: Trackworker
- **TkIns:** Track Inspector
- **W/B:** Welder/Burner
- **Ch:** Chaffeur
- **CLPR:** Clipper
- **SO:** Specialist Operator
- **CO:** Crane Operator

TEM: Track Equipment Maintainer
TEHP(PD): Transit Electrical Helper (Power)
PDM: Power Distribution Maintainer
MS I/II: Maintenance Supervisor Level I/II
MSI/II PD: Maintenance Supervisor Level I/II Power Distribution
GS/SUPT: General Superintendent/Superintendent

Cycle Annually = cycling in progession no less than 1 module (6-16) annually.

Revised: 11/22/2024

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8 New York Public Transportation Safety Board (PTSB) State Safety Oversight (SSO) Risk-Based Inspections (RBIs)

Pursuant to the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (49 U.S.C. § 5329), NYCT has added the following to the Agency Safety Plan to facilitate and comply with Special Directive No. 22-39, Required Actions to Implement a Risk-Based Inspection Program at the New York Public Transportation Safety Board, the PTSB SSO Program Standard Section 1.8, and Reference Guide Section 5.6.

8.1 Risk-Based Inspections

A risk-based inspection program uses qualitative and quantitative data analysis to inform ongoing inspection activities. Risk-based inspection programs are designed to prioritize inspections to address safety concerns and hazards associated with the highest levels of safety risk.

8.2 Inspections Access

NYCT provides PTSB with the authority and capability to enter the rail facilities that PTSB oversees to inspect infrastructure, equipment, records, personnel, and data, including the data that NYCT collects when identifying and evaluating safety risks.

Inspection Access Policies and Procedures – PTSB, in consultation with NYCT, has established policies and procedures regarding the access for PTSB to conduct inspections of NYCT, including access for inspections that occur without advance notice to NYCT.

8.3 Data Collection

NYCT provides PTSB with the data that NYCT collects when identifying and evaluating safety risks, such as:

Safety program data

- Records of safety events
- Hazard records
- Safety risk mitigation records
- Corrective action plans
- Records of near misses

Maintenance data

- Inspection and maintenance records and report forms

- Work orders
- Records of failures and defects
- Records of revenue vehicles out of service, including causal information
- Major maintenance activity schedule and progress
- Adherence to maintenance schedules, including reports and documentation of deferred maintenance

Inspection data

- Inspection records and report forms
- Records of failure and defects
- Records of speed restrictions
- Event and safety risk mitigation verification
- Adherence to inspection schedules including reports and documentation of inspections not performed
- Capital project schedules and progress

Data Collection Policies and Procedures

PTSB, coordinating with NYCT, has established policies and procedures for collecting data described in the Data Collection requirements, including with respect to frequency of collection, that is commensurate with the size and complexity of NYCT, see the PTSB/NYCT Data Products List/Table.

Incorporation of Requirements

Policies and procedures established by PTSB for Risk-Based inspections remain incorporated into the NYCT Agency Safety Plan.

8.4 Corrective Action Plans

When required, the PTSB or Federal Transportation Administration (FTA) may request NYCT to develop a corrective action plan (CAP). A CAP is defined as action that NYCT will take to minimize, control, correct, or eliminate risk and hazards and a schedule for taking those actions. The PTSB or FTA may issue a CAP in response to the following: Noncompliance with the ASP, SSOA triennial audit findings, safety event investigation, internal safety review, or insufficient safety risk mitigation.

Any request for a CAP issued to NYCT will be handled by a team of appropriate departments with the goal of CAP development and approved by the deadline issued by the PTSB or FTA. Once approved, the PTSB/FTA will utilize/issue checklist for actions taken, timeline for completion and responsible parties, documentation requirements, etc, as well as a means for the PTSB/FTA to monitor the progress of the actions taken to implement the CAP. Once all the necessary outlined actions have been implemented by NYCT it can be requested that the CAP be closed. Once closed,

some CAPs may require monitoring thru a safety assurance/review process implemented by NYCT and monitored/audited by PTSB/FTA.

9 Additional Information – Definitions and Acronyms

Presented below are definitions and acronyms used throughout this Agency Safety Plan.

List of Definitions per 49 C.F.R. 673.5 and 674.7:

Accountable Executive means a single, identifiable individual who has ultimate responsibility for carrying out the Public Transportation Agency Safety Plan of a public transportation agency; responsibility for carrying out the agency's Transit Asset Management Plan; and control or direction over the human and capital resources needed to develop and maintain both the agency's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329(d), and the agency's Transit Asset Management Plan in accordance with 49 U.S.C. 5326.

Administrator means the Federal Transit Administrator or the Administrator's designee. Contractor means an entity that performs tasks on behalf of FTA, a State Safety Oversight Agency, or a Rail Transit Agency, through contract or other agreement.

Chief Safety Officer (CSO) means an adequately trained individual who has responsibility for safety and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer. A Chief Safety Officer may not serve in other operational or maintenance capacities, unless the Chief Safety Officer is employed by a transit agency that is a small public transportation provider as defined in this part, or a public transportation provider that does not operate a rail fixed guideway public transportation system.

Corrective Action Plan (CAP) means a plan developed by a Rail Transit Agency that describes the actions the Rail Transit Agency will take to minimize, control, correct, or eliminate risks and hazards, and the schedule for taking those actions. Either a State Safety Oversight Agency or FTA may require a Rail Transit Agency to develop and carry out a corrective action plan.

Equivalent Authority means an entity that carries out duties similar to that of a Board of Directors, for a recipient or subrecipient of FTA funds under 49 U.S.C. Chapter 53, including sufficient authority to review and approve a recipient or subrecipient's Public Transportation Agency Safety Plan.

Event means an Accident, Incident or Occurrence.

FRA means the Federal Railroad Administration, an agency within the United States Department of Transportation.

FTA means the Federal Transit Administration, an agency within the United States Department of Transportation.

Hazard means any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a rail fixed guideway public transportation system; or damage to the environment.

Investigation means the process of determining the causal and contributing factors of an accident, incident, or hazard, for the purpose of preventing recurrence and mitigating risk.

National Public Transportation Safety Plan means the plan to improve the safety of all public transportation systems that receive Federal financial assistance under 49 U.S.C. Chapter 53.

NTSB means the National Transportation Safety Board, an independent Federal agency.

Operator of a public transportation system means a provider of public transportation as defined under 49 U.S.C. 5302(14).

Performance measure means an expression based on a quantifiable indicator of performance or condition that is used to establish targets and to assess progress toward meeting the established targets.

Performance target means a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by the Federal Transit Administration (FTA).

Person means a passenger, employee, contractor, pedestrian, trespasser, or any individual on the property of a rail fixed guideway public transportation system.

Public Transportation Agency Safety Plan (PTASP) means the comprehensive agency safety plan for a transit agency, including a Rail Transit Agency, that is required by 49 U.S.C. 5329(d) and based on a Safety Management System. Until one year after the effective date of FTA's PTASP final rule, a System Safety Program Plan (SSPP) developed pursuant to 49 CFR part 659 will serve as the rail transit agency's safety plan.

Public Transportation Safety Certification Training Program means either the certification training program for Federal and State employees, or other designated personnel, who conduct safety audits and examinations of public transportation systems, and employees of public transportation agencies directly responsible for safety oversight, established through interim provisions in accordance with 49 U.S.C. 5329(c)(2), or the program authorized by 49 U.S.C. 5329(c)(1).

Rail fixed guideway public transportation system means any fixed guideway system that uses rail, is operated for public transportation, is within the jurisdiction of a State, and is not subject to the jurisdiction of the Federal Railroad Administration, or any such system in engineering or construction. Rail fixed guideway public transportation systems include but are not limited to rapid rail, heavy rail, light rail, monorail, trolley, inclined plane, funicular, and automated guideway.

Rail Transit Agency (RTA) means any entity that provides services on a rail fixed guideway public transportation system.

Risk means the composite of predicted severity and likelihood of the potential effect of a hazard.

Risk mitigation means a method or methods to eliminate or reduce the effects of hazards.

Safety Event means an unexpected outcome resulting in injury or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.

Safety Assurance means processes within a transit agency's Safety Management System that functions to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

Safety Management System (SMS) means the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards.

Safety Management System (SMS) Executive means a Chief Safety Officer or an equivalent.

Safety Promotion means a combination of training and communication of safety information to support SMS as applied to the transit agency's public transportation system.

Safety Risk Assessment means the formal activity whereby a transit agency determines Safety Risk Management priorities by establishing the significance or value of its safety risks.

Safety Risk Management means a process within a Rail Transit Agency's Safety Plan for identifying hazards and analyzing, assessing, and mitigating safety risk.

Safety Risk Mitigation means something put in place to address a safety risk, with a goal to avoid or reduce the impact of the potential consequences of hazards in the safe delivery of transit operations.

Serious injury means any injury which: (1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received; (2) Results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (3) Causes severe hemorrhages, nerve, muscle, or tendon damage; (4) Involves any internal organ; or (5) Involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

State means a State of the United States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, and the Virgin Islands.

State Safety Oversight Agency (SSOA) means an agency established by a State that meets the requirements and performs the functions specified by 49 U.S.C. 5329(e) and the regulations set forth in this part.

Vehicle means any rolling stock used on a rail fixed guideway public transportation system, including but not limited to passenger and maintenance vehicles.

List of Acronyms:

AAR	Association of American Railroads
ACMO	Assistant Chief Mechanical Officer
ANSI	American National Standards Institute
APP	Accident Prevention Program
APPGHS	Accident Prevention Program Globally Harmonized System
ASME	American Society of Mechanical Engineers
ASP	Agency Safety Plan
ATD	Assistant Train Dispatcher
ATS-A	Automatic Train Supervision – A Division
CAP	Corrective Action Plan
CBTC	Communication Based Train Control
CCF	Configuration Change Form
CCM	Consultant Construction Manager
CDC	Centers for Disease Control and Prevention
CEE&TS	Car Equipment Engineering & Technical Support
CES	Central Electronics Shop
CFR	Code of Federal Regulations
C.I.	Coney Island
CIG	Capital Investment Grant
C/M	Configuration Management
CMAA	Crane Manufacturers Association of America
CPB	Division of Capital Planning & Budget
C&D	Construction & Development
C/R	Conductor
CSE	Contractor Safety Engineer
CSS	Contractor Safety Supervisor
DCE	Division of Car Equipment
DCN	Design Change Notice
DCSM	District Customer Service Manager
DOB	Department of Buses
DOH	Department of Health
DOL	Department of Labor
DOS	Department of Subways
EA	Emergency Alarm
E&E	Elevators & Escalators
EAM	Enterprise Asset Management
EAP	Employee Assistance Program
ECR	Engineering Change Requests
EIA	Electronics Industry Alliance
ELM	Enterprise Learning Management
EMD	Electronics Maintenance Division
ENY	East New York
EPR	Emergency Preparedness Response
ER	Emergency Relief
ERP	Emergency Response Plan

EVP	Executive Vice President
FDNY	New York City Fire Department
FIRS	Fire Incident Reporting System
FO	Field Operations
FPET	Fire and Passenger Evacuation Training
FTA	Federal Transit Administration
GHS	Globally Harmonized System
GSM	Group Station Manager
GSS	Group Station Superintendent
HASP	Health And Safety Plan
HCP	Hazard Communication Program
HEEP	Handheld Employee Evaluation Program
HVAC	Heating, Ventilation, and Air Conditioning
ISA	Independent Safety Assessor
LEC	Local Emergency Control
MDBF	Mean Distance Between Failure
MIFUR	Major Incident Follow Up Report
MOW	Maintenance of Way
MS	Maintenance Supervisor
MTA	Metropolitan Transportation Authority
NIMS	National Incident Management System
NPTSP	National Public Transportation Safety Plan
NRS	Non Revenue Shop
NTSB	National Transportation Safety Board
NYC	New York City
NYCT	New York City Transit
NYPD	New York Police Department
NYSDOT	New York State Department of Transportation
OCC	Operations Control Center
OEM	Office of Emergency Management
OSHA	Occupational Safety Health Administration
OSS	Office of System Safety
PCEO	Project Chief Executive Officer
PDM	Power Distribution Maintainer
PEC	Potential Employee Contact
P/I	Policy/Instruction
PICF	Part Identification Change Form
PMC	Project Management Consultant
PMG	Project Management Guideline
PMP	Project Management Procedures
PPE	Personal Protective Equipment
PTASP	Public Transportation Agency Safety Plan
PTSB	Public Transportation Safety Board
QA	Quality Assurance
QPL	Qualified Product List
RAC	Risk Assessment Code

RFO	Rail Field Operations
ROW	Right of Way
RSMIS	Rolling Stock Maintenance Information System
RTI	Rapid Transit Investigations
RTK	Right To Know
RWP	Roadway Worker Protection
SAIR	Supervisor's Accident Investigation Report
SC	Safety Coordinator
SCADA	Supervisory Control and Data Acquisition System
SCOT	Safety Culture Observation Team
SDRF	Safety Dispute Resolution Form
SGAP	Safety Goal Action Plan
SIR	Staten Island Railway
SIRTOA	Staten Island Rapid Transit Operating Authority
SM	Safety Manager
SMART	Specific, Measurable, Attainable, Relevant, Time-Bound
SMAT	Safety Management Audit Training
SMI	Scheduled Maintenance Inspections
SMS	Safety Management System
SOP	Standard Operating Procedure
SSCB	System Safety Certification Board
SSOA	State Safety Oversight Agency
SSPP	System Safety Program Plan
SSSA	Subways Surface Supervisors Association
STOP	Safety Training Observation Program
SVP	Senior Vice President
TA	Transit Agency
T/D	Train Dispatcher
TEMM	Transit Electromechanical Maintainers
TENS	Transit Employee News Service
TGC	Track Geometry Car
T/O	Train Operator
TRO	Third Rail Operations
TSS	Train Service Supervisors
TWU	Transport Workers Union
VP	Vice President
WC	Warranty Control
WMD	Weapons of Mass Destruction
WVPP	Workplace Violence Prevention Program

2025 NYCT DOS ASP FINAL for Signatures

Final Audit Report 2026-02-17

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Status:	Signed
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