

Storm Water Pollution Prevention Plan

**Medical Area Total Energy Plant
(MATEP)
Boston, Massachusetts**

January 25, 2024 (Rev. 11)

TRC Project No. 525948.0000.0000

Prepared For:

Medical Area Total Energy Plant (MATEP)
474 Brookline Avenue
Boston, MA 02215

Prepared By:

TRC Environmental
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451

TABLE OF CONTENTS

1.0	INTRODUCTION	3
1.1	Background.....	3
1.2	Facility Overview.....	3
1.3	Summary of Plan Requirements.....	4
1.4	Plan Considerations.....	4
	1.4.1 General Considerations.....	4
	1.4.2 Industry Specific Best Management Practices (“BMP”) Considerations.....	5
2.0	POLLUTION PREVENTION TEAM (PPT)	6
2.1	Team Members.....	7
2.2	Duties.....	8
3.0	FACILITY INFORMATION	8
3.1	Site Description.....	8
	3.1.1 Impervious Surfaces Estimate.....	9
	3.1.2 Precipitation Information.....	9
	3.1.3 Receiving Water and Wetlands.....	10
	3.1.4 Summary of Industrial Activities.....	10
3.2	Management of Stormwater Runoff.....	10
3.3	Drainage Areas and Outfall Descriptions (Refer to Figure 3).....	10
	3.3.1 Drainage Area 001.....	10
	3.3.2 Drainage Area 002.....	11
	3.3.3 Drainage Area 003.....	11
	3.3.4 Drainage Area 004.....	11
	3.3.5 Main Cooling Tower Fan Deck.....	11
3.4	Inventory of Potential Pollutant Sources.....	11
	3.4.1 Inventory of Significant Material Exposed to Stormwater.....	11
	3.4.1.1 Drainage Area 001.....	11
	3.4.1.2 Drainage Area 002.....	12
	3.4.1.3 Drainage Area 003.....	12
	3.4.1.4 Drainage Area 004.....	12
	3.4.1.5 Summary.....	12
	3.4.2 Industrial Activities Exposed to Stormwater.....	13
	3.4.2.1 Drainage Area 001.....	13
	3.4.2.2 Drainage Area 002.....	13
	3.4.2.3 Drainage Area 003.....	13
	3.4.2.4 Drainage Area 004.....	14
	3.4.3 Potential Spills and Leaks.....	14
	3.4.4 Non-Stormwater Discharge Background.....	14

3.4.5	Non-Stormwater Discharge Evaluation.....	15
3.5	Existing Stormwater Sampling Data	15
3.6	Non-Structural Controls	15
3.6.1	Existing Controls	15
3.6.2	Planned Non-Structural Controls	16
3.7	Structural Controls	16
3.7.1	Sedimentation and Erosion Controls	16
3.7.1.1	Drainage Area 001	16
3.7.1.2	Drainage Area 002	16
3.7.1.3	Drainage Area 003	17
3.7.1.4	Drainage Area 004	17
3.7.2	Existing Structures	17
3.7.2.1	Drainage Area 001	17
3.7.2.2	Drainage Area 002	17
3.7.2.3	Drainage Area 003	17
3.7.2.4	Drainage Area 004	17
3.7.2.5	Main Cooling Tower Fan Deck.....	17
3.7.3	Planned Structural Controls	18
3.7.4	Maintenance Controls	18
3.8	Other Controls.....	18
3.9	Employee Training	19
3.10	Spill Prevention and Reporting	20
3.10.1	SWPPP Modification.....	20
4.0	STORMWATER MONITORING AND REPORTING.....	20
4.1	Record Keeping and Internal Reporting.....	20
4.2	Monitoring Locations and Substantially Identical Outfalls	21
4.3	Routine Facility Inspections	21
4.4	Annual Report	22
4.5	Quarterly Visual Assessment Requirements	23
4.6	Stormwater Monitoring and Reporting	24
4.6.1	Benchmark Stormwater Monitoring and Reporting for Sector O Facilities	24
4.6.2	Indicator Monitoring	24
4.6.3	Schedule of Indicator Monitoring (pH, TSS, and COD)	25
4.6.4	Schedule of Indicator Monitoring (PAHs).....	25
4.6.5	Monitoring Periods	25
4.6.6	Sampling Parameters	25
4.6.7	Sampling Procedure	26
4.6.8	Required Sample Bottles	26
4.6.9	Sample Preservation.....	26

4.6.10	Sample Analysis.....	27
4.6.11	Sampling Waivers	27
4.6.12	Reporting Requirements	27
4.6.13	Data Not Exceeding Benchmarks.....	28
4.6.14	Data Exceeding Benchmarks.....	28
4.7	Monitoring and Reporting for Discharges to Impaired Waters.....	28
4.7.1	Sampling Parameters and Requirements.....	30
4.7.1.1	Established TMDL Requirements	30
4.7.1.2	Non-Established TMDL Requirements.....	30
4.7.2	Sampling Procedure	31
4.7.3	Required Sampling Bottles	31
4.7.4	Sample Preservation.....	31
4.7.5	Sample Analysis.....	32
4.7.6	Reporting Requirements	32
4.7.7	Data Not Exceeding TMDL	32
4.7.8	Data Exceeding TMDL.....	32
4.7.9	Data Not Exceeding Background Levels	32
4.7.10	Data Exceeding Natural Background Levels	33
4.8	State or Tribal Monitoring Requirements	33
4.9	Significant Spill History	33
5.0	ENDANGERED SPECIES AND HISTORIC PLACES.....	35
5.1	National Historic Preservation Act Certification	35
5.1.1	National Historic Preservation Act Eligibility Assessment	35
5.2	Endangered Species Act	36
6.0	SWPPP AVAILABILITY.....	36
7.0	CORRECTIVE ACTIONS AND ADDITIONAL IMPLEMENTATION MEASURES.....	37
7.1	Corrective Actions.....	37
7.2	Additional Implementation Measures (AIM).....	37
7.3	Baseline Status	38
7.4	AIM Triggering Events.....	38
8.0	SIGNATURE REQUIREMENTS.....	38
8.1	Facility Management Certification.....	38
8.2	Non-Stormwater Discharge Evaluation Certification.....	41
8.3	Assessment Waivers.....	43
8.3.1	Waivers for Unstaffed and Inactive Sites	43
8.3.2	Waivers for Adverse Climatic Conditions.....	43
8.3.3	Alternate Certifications for Sampling Waiver	43

TABLES

Table 1	Drainage Area Characteristics and Associated Activities
Table 2	Routine Site Inspections

FIGURES

Figure 1	General Location Map
Figure 2	Environmental and Cultural Resources Map
Figure 3	Site Map
Figure 4	Muddy River Outfall

APPENDICES

Appendix A	Notice of Intent
Appendix B	Natural Heritage and Endangered Species Determination
Appendix C	Multi-Sector General Permit
Appendix D	Annual Reports
Appendix E	Corrective Actions
Appendix F	Routine Facility Inspections
Appendix G	Quarterly Visual Assessment Forms
Appendix H	Analytical Data
Appendix I	Description of Reportable Quantity (RQ) Releases
Appendix J	Discharge Monitoring Reports
Appendix K	Training Records
Appendix L	Industrial Activity Exposure Documentation
Appendix M	Punch List
Appendix N	SWPPP Modification Log



**STORM WATER POLLUTION PREVENTION PLAN
Medical Area Total Energy Plant (MATEP)
Boston, Massachusetts**

Prepared For:

Medical Area Total Energy Plant (MATEP)
474 Brookline Avenue
Boston, MA 02215

Prepared By:

TRC Environmental Corporation
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451

TRC Project No. 525948.0000.0000

March 2009

(Rev. 1 - July 2012)
(Rev. 2 – August 2015)
(Rev. 3 – January 2017)
(Rev.4 – January 2018)
(Rev.5 – January 2019)
(Rev.6 – January 2020)
(Rev.7 – January 2021)
(Rev.8 – April 2021)
(Rev.9 – January 2022)
(Rev.10 – January 2023)
(Rev.11 – January 2024)

SWPPP Contacts:

Owner

MATEP LP
474 Brookline Avenue
Boston, MA 02215

Facility Operators

Robert Faia
Environmental Health & Safety Manager
MATEP LLC
474 Brookline Avenue
Boston, MA 02215
Cell: 781.941.4962
Office: 617.598.2711
robert.faia@engie.com

Representative

Katie Conese
TRC Environmental Corporation
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451
781.419.7709
kconese@trccompanies.com

SWPPP Revision Date:

January 25, 2024

1.0 Introduction

1.1 Background

As required by the 1987 amendments to the Clean Water Act, in November 1990 EPA initiated the National Pollutant Discharge Elimination System (“NPDES”) stormwater-permitting program. Under the program, NPDES permits are required for all point source stormwater discharges associated with industrial activity. To provide flexibility for the regulated industries, EPA developed the group application.

The group application option allowed industrial facilities with similar activities to submit a unified application for permit coverage. Using the group application, a facility submits information regarding industrial activities, best management practices to minimize stormwater impact, potential materials exposed to stormwater and end-of-pipe stormwater sampling data. Based on the received data, US EPA developed the industry-specific Multi-Sector General Permit (“MSGP”) for Stormwater Discharges Associated with certain Industrial Activities. The MSGP was originally issued on September 29, 1995 and consequently updated on October 30, 2000, September 29, 2008, and June 4, 2015. The 2021 MSGP became effective on March 1, 2021. In developing the Multi-Sector General Permit, EPA divided the industrial activities to be covered by this permit into 29 industry sectors. Within each sector, the MSGP requires a facility to identify pollutants of concern, sources of pollutants and best management practices to be used by industry to control the potential pollutants from any applicable industrial activity.

Each facility covered by the MSGP must develop a Stormwater Pollution Prevention Plan (“SWPPP”) with the goal of eliminating, minimizing or reducing the amount of pollution in stormwater discharges from the facility. The SWPPP must include Best Management Practices (“BMP”)s that are selected, installed, implemented, and maintained in accordance with good engineering practices. The objective is to minimize pollutants in the stormwater runoffs so that the discharge will not cause or contribute to an excursion above any applicable water quality standards within receiving waters.

1.2 Facility Overview

The Medical Area Total Energy Plant (“MATEP”) facility is involved in electric, steam, and chilled water generation and uses combustion turbine combined cycle electric generation with heat recovery boilers to generate steam that is used to generate electricity in two steam turbine generators (STG) at its 474 Brookline Avenue facility. The facility provides reliable electricity, steam, and chilled water to the Longwood Medical and Academic Area (LMA), which is home to numerous hospitals and biomedical and pharmaceutical research and teaching facilities. MATEP employs the use of steam in its electric generating activities and is therefore covered under the MSGP 2021 as a Sector O facility (see section 3.1 for further explanation).

The facility is located in the Charles River Basin in Massachusetts and discharges its stormwater to the Boston Water and Sewer Commission (BWSC) stormwater pipe network that discharges to the Muddy River (Figure 4), which combines with the Charles River before flowing into Boston Harbor. On December 9, 2008, MATEP’s previous consultant (EBI Consulting Inc.) spoke with the EPA Region 1 Stormwater Coordinator, Thelma Murphy, regarding the impairment of waters further downstream from the initial receiving waters and was instructed to treat the initial receiving

waters as the “receiving waters” for a facility’s stormwater discharge for the purposes of the MSGP 2008 and the SWPPP. This is continued in this SWPPP document.

The MATEP facility is an existing facility with an existing SWPPP under the MSGP 2021. This updated SWPPP has been prepared by TRC Environmental (TRC) based on the information presented in the previous plan, a review of the facility engineering design and construction plans, an inspection of the facility, and review of the 2021 MSGP.

1.3 Summary of Plan Requirements

Compliance with the Multi-Sector General Permit requires that the permittee carry out activities that will assure that the objectives of the NPDES Permit program for stormwater discharges associated with the regulated industrial activities are achieved. One of the required activities is that a SWPPP is prepared, and its provisions carried out. The responsibility for carrying out the provisions of the SWPPP is given by MATEP to the Pollution Prevention Team (“PPT”) through a designated leader. As described in the SWPPP, the PPT is charged with executing the following tasks:

- Pollution Prevention Team Identification (“PPT”) (Section 2)
- Site Description (Section 3.0)
- Summary of Potential Pollutant Sources (Section 3.4)
- Annual Training (Section 3.9)
- Routine Inspections (Section 4.3)
- Monitoring (Section 4.5, 4.6 and 4.7)
- Annual Reports (Section 4.4)
- Release Notification, as necessary (Appendix I)

1.4 Plan Considerations

1.4.1 General Considerations

Each facility covered by the Multi-Sector General Permit must develop a SWPPP with the goal of eliminating, minimizing or reducing the amount of pollution in stormwater discharges from the facility. Each industry sector covered by the permit has industry specific SWPPP considerations. However, there are a number of general requirements that pertain to all facilities regardless of the sector designation. The general requirements to be addressed by the SWPPP are largely based on the baseline general permit requirements and are summarized below.

- Pollution Prevention Team (Section 2.0)
- Site Map (Figure 3)
- Runoff Location and Source (Figure 3)
- Industrial Activities (Section 3.1.4)
- Impervious Surface Estimates (Section 3.1.1)
- Precipitation Information (Section 3.1.2)
- Pollutant Sources (Section 3.4)
- Inventory of Significant Materials Exposed to Stormwater (Section 3.4.1)

- Spill History (Section 4.9)
- Non-Stormwater Discharge Evaluation (Section 3.4.4)
- Best Management Practices, which may include:
- Good Housekeeping – good housekeeping in industrial areas exposed to stormwater
 - **Minimizing Exposure** – protection of industrial materials and activities by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt or runoff
 - **Preventive Maintenance** - maintenance of stormwater controls and other facility equipment
 - **Spill Prevention and Response Procedures** - procedures used to minimize the potential for and the impact of spills
 - **Employee Training** – training of employees relative to: 1) pollution prevention measures, and 2) controls and record keeping
 - **Sedimentation/Erosion Control** – identification of areas with a high potential for erosion and the stabilization measures or structural controls to be used to limit erosion
 - **Traditional Measures and Controls** – implementation of traditional stormwater management measures (oil/water separators, limiting outdoor storage of materials, etc.) where they are appropriate for the site
 - **Other Controls** – Identification of other controls used for the minimization of stormwater runoff exposure to raw material, final or waste materials, sedimentation and airborne dust. Also, controls may include velocity dissipation devices, which may be employed at the stormwater outfalls
 - **Documentation and procedures** – for analytical monitoring as specified in the MSGP (Section 4.0)

1.4.2 Industry Specific Best Management Practices (“BMP”) Considerations

In addition to the general measures and controls discussed above, the permit includes certain SWPPP considerations that are specific to the applicable industry sector. These considerations are derived primarily from industry-specific information on sources of pollution or from BMPs that are currently in place at facilities in Sector O – Steam Electric Generating Facilities. The Industry Specific BMPs for Sector O can be found in the MSGP 2021 Section 8.O.4. The Industry-specific BMPs applicable to MATEP are summarized below:

- **Delivery Vehicles** – Minimize contamination of stormwater runoff from delivery vehicles arriving at the plant site. Follow MATEP Fuel Oil Delivery and Chemical procedures to inspect delivery vehicles arriving at the plant site and ensure overall integrity of the tanker truck and container are safe for offloading. Follow MATEP Integrated Contingency Plan (ICP) for procedures for responding to any leaks or spills from vehicles or containers.
- **Fuel Oil and Chemical Unloading Areas** – All fuel oil deliveries and unloading shall take place in the designated offloading stations inside the Truck Run per the Fuel Oil Delivery procedures. Trucks must be positioned in offloading containment areas while

off-loading. Driver and MATEP trained personnel must be present during offloading at all times to communicate with Control Room to report any release or spill and implement the ICP.

- **Miscellaneous Loading and Unloading Areas** – All loading and unloading areas are located inside the Truck Run which has two (2) containment depressions for these activities. No loading or unloading is conducted outside the truck run.
- **Liquid Storage Tanks** – All liquid storage tanks are located inside the MATEP facility and are provided with secondary containment.
- **Large Bulk Fuel Storage Tanks** – Fuel oil tanks (FOT) are located inside the MATEP facility and are provided with secondary containment and leak detection. MATEP has developed and implemented a Spill Prevention, Control and Countermeasure (SPCC) Plan which is contained in the facility ICP. MATEP complies with all local, state, and federal requirements for underground storage tanks and aboveground storage tanks.
- **Spill Reduction Measures** – Minimize the potential for an oil or chemical spill, as referenced in the facility ICP. Tanks, piping, and pumps are inspected as part of MATEP’s routine facility inspection and structural integrity evaluations.
- **Oil-Bearing Equipment** – Minimize oil contamination of surface runoff areas from oil-bearing equipment on roofs and mobile equipment used outside of the facility.
- Sector O Facilities must document in the facility’s SWPPP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: storage tanks, scrap storage, and general refuse areas; short- and long-term storage of general materials (including but not limited to supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides); landfills and construction sites; and stock pile areas (e.g., coal or limestone piles). See Sections 3.3 and 3.4 of this plan for a detailed explanation of the activities and sources at the MATEP facility.
- **Documentation of Good Housekeeping Measures** – Sector O Facilities must document in the SWPPP good housekeeping measures implemented to meet the effluent limits in Part 8.O.5.2 of the 2021 MSGP.
- **Routine Inspections** – As part of Sector O Facility inspections, and as stated in the 2021 MSGP, the facility is required to inspect the following areas monthly: loading or unloading areas, fueling areas, bulk storage areas, maintenance areas, liquid storage tanks, and long term and short-term material storage areas. Since all of these activities occur inside the building or under cover, these activities do not come in contact with stormwater. Therefore, the routine facility inspection will be conducted quarterly as described in Section 3.1 of the 2021 MSGP.

2.0 Pollution Prevention Team (PPT)

The individuals that comprise the PPT are selected based on their familiarity with pollution control, pollution prevention, their day-to-day functional responsibility, and their responsibility regarding other environmental management plans in use at the facility. In addition, these individuals have the authority to define stormwater pollution prevention measures during the development of the Stormwater Pollution Prevention Plan and to implement these measures as required by the

SWPPP. They are generally familiar with spill prevention, spill containment, emergency response (Integrated Contingency Plan) and pollution prevention best management practices.

The MATEP facility also maintains additional pollution prevention programs which contribute to the safety and proper environmental management of the facility. These include the Safety Manual which contributes to the requirements for a SWPPP, and an Integrated Contingency Plan which contains procedures for both the SPCC Plan and an Emergency Response Plan. This SWPPP will identify specific individuals who are responsible for implementing and maintaining these Plans. These individuals will be familiar with spill prevention and containment, emergency response, and pollution prevention Best Management Practices in general.

The MATEP facility employs personnel trained to respond to any of the emergencies that could be expected to arise. This includes an Emergency Coordinator (EC) responsible for the control and direction of all in-plant response efforts during an emergency. The ICP plan identifies those individuals who function as the Emergency Coordinators as well as their specific responsibilities and response actions to various plant emergencies.

2.1 Team Members

POLLUTION PREVENTION TEAM

Leader: Robert Faia
Title: Environmental Health & Safety Manager
Cell Phone: 781.941.4962
Office Phone: 617.598.2711
Responsibilities: Coordinates all stormwater pollution prevention activities, conducts stormwater sampling, performs inspections and oversees inspection program, coordinates record keeping activities.

Team Member: Liam Curry
Title: Operations Manager
Cell Phone: 315.447.0298
Office Phone: 617.598.2780
Responsibilities: Responsible for spill response, oversees inspection and daily operational activities, oversees good housekeeping procedures. Reviews the plan with the EHS Manager and assists with drafting updates/revisions.

Team Member: Kenneth Burke
Title: Maintenance Manager
Phone: 617.598.2749
Responsibilities: Evaluates stormwater-related data and provides support to Operations and Maintenance Departments to develop and implement SWPPP systems. Responsible for implementing the preventative maintenance program. Supervises equipment and facility maintenance. Implements spill response procedures when the primary and backup Emergency Coordinators are off-site or

unavailable. Reviews the plan with the EHS Manager and assists with drafting updates/revisions.

2.2 Duties

The PPT leader, the facility designated responsible person for spill prevention, and the rest of the PPT members, are responsible for the following:

- Completing Certifications (Section 7.0)
- Identifying New Pollution Prevention Team (PPT) members (Section 2.0), as necessary
- Identifying Non-Stormwater discharges (Section 3.4.4)
- Recordkeeping (Section 4.1)
- Annual Training (Section 3.9)
- Routine Inspections (Section 4.3)
- Monitoring (Section 4.5, 4.6, and 4.7)
- Annual Reports (Section 4.4)
- Release Notification (Section 3.10.1)

3.0 Facility Information

1. Name of facility: Medical Area Total Energy Plant
2. Industrial Activity: Steam electric power generation using natural gas and oil (Sector O)
3. Location of facility: 474 Brookline Avenue, Boston, Massachusetts 02215 (see Figure 1)
4. Storm Water Runoff Flow and Spill Flow Prediction (see Figure 3)
5. Receiving Water Body: Muddy River
6. Latitude/Longitude

Latitude: 42.336892 Longitude: -71.108393

Method for determining latitude/longitude: <http://itouchmap.com/latlong.html>

Horizontal Reference Datum: NAD83

3.1 Site Description

The Medical Area Total Energy Plant (MATEP) facility is located in a limited industrial land use zone. A vicinity map showing the surrounding Boston, Massachusetts area is provided as Figure 1. A Facility Site Map showing the building roof layout and the locations of Outfalls and all drains is provided as Figure 3. The MATEP facility is located in the Charles River Basin in Massachusetts and discharges its stormwater to the Muddy River (Figure 4) via the BWSC storm drainage systems located under Francis Street and Brookline Avenue.

The MATEP combined cycle power plant produces electric power from Combustion Turbine and Steam Turbine driven generators. The Combustion Turbine Generators (CTG) are dual fuel fired units using natural gas and Ultra Low Sulfur Diesel (ULSD) fuel oil. Waste heat from the Combustion Turbine Generator exhaust is recovered and used to produce steam in Heat Recovery Steam Generators (HRSG). The steam is then used to drive two STGs, which generate additional electricity. The North American Industry Classification System (NAICS) codes for MATEP's facility operations include 221112, Fossil Fuel Electric Power Generation and 221330, Steam and Air-Conditioning Supply. The Standard Industrial Classification (SIC) Code for MATEP's facility operations is 4939, Combination Utilities, Not Elsewhere Classified. Although the MSGP 2021 is primarily SIC Code based, for Sector O – Steam Electric Generating Facilities – the permit uses an activity code, SE (Steam Electric), instead of the facility's SIC code in order to avoid confusion with regard to various types of power generation facilities and their coverage under the MSGP 2021.

Based on the EPA's definition of Sector O facilities employing steam in electric power generation, MATEP is covered by the MSGP 2021, because it is a combined-cycle power generation facility and employs steam (via the HRSG and steam boilers) in its power generation activities.

Sector O Facilities are characterized by activity code SE, which is listed in the 2021 MSGP, Table D-1 –Sectors of Industrial Activity Covered by This Permit. Such facilities are therefore required to submit a Notice of Intent ("NOI") and to obtain permit coverage for their stormwater discharges. The due date of the NOI was May 30, 2021. MATEP filed the NOI upon completion of a review and revision of this SWPPP in April 2021. A copy of the NOI is included in Appendix A of this plan. MATEP has chosen to obtain coverage for their stormwater discharges under the Multi-Sector General Permit program. A copy of MATEP's NPDES Stormwater Multi-Sector Permit authorizing the discharge of stormwater associated with Multi-Sector activities is maintained in Appendix C of this plan. One of the requirements of permit coverage is the preparation and implementation of this Stormwater Pollution Prevention Plan (SWPPP). The MSGP has both general and industry specific requirements. Based on Activity Code SE, MATEP falls within industry Sector O, Steam Electric Generating Facilities, under the Multi-Sector General Permit. The sector specific requirements for SWPPP development for this industry sector are presented in Section 1.4.2 of this plan.

3.1.1 Impervious Surfaces Estimate

The MATEP facility drains approximately 1.876 acres (81,719 square feet), of which industrial activity occurs on the entire property, except a small portion of the roof on the Francis Street side of the facility. The entire property is impervious rooftop or paved access pathways. The rooftop and paved impervious areas have been marked in the facility Site Plan in Figure 3.

3.1.2 Precipitation Information

According to the National Weather Service, Boston, Massachusetts receives an average of about 44 inches of precipitation a year. The precipitation can fall in the form of snow or sleet from November through March, and it can rain during any month of the year.

3.1.3 Receiving Water and Wetlands

MATEP is located in the Charles River Basin. Stormwater runoff at the facility is collected in a series of roof drains, piped through the MATEP facility, and discharged to the BWSC storm drainage system under Francis Street and Brookline Avenue via Outfalls 001, 002 (no industrial activity), 003, and 004. The BWSC storm drain system utilized by the MATEP facility drains directly into the Muddy River via BWSC storm drain outfall number 161, located less than ¼ mile to the southwest of the MATEP facility (near the intersection of Brookline Avenue and the Riverway – see Figure 4). The Muddy River combines with the Charles River before flowing into Boston Harbor. On December 9, 2008, a representative from MATEP’s previous consultant (EBI Consulting) spoke with the EPA Region 1 Stormwater Coordinator, Thelma Murphy, regarding the impairment of waters further downstream from the initial receiving waters and was instructed to treat the initial receiving waters as the “receiving waters” for a facility’s stormwater discharge for the purposes of the MSGP 2008 and this SWPPP. Accordingly, the initial receiving waters for the MATEP stormwater discharge is the Muddy River (Figure 4), a waterway currently classified as an impaired water according to the Massachusetts Integrated Waters List, pursuant to Section 303(d) of the Clean Water Act.

3.1.4 Summary of Industrial Activities

The majority of industrial activities conducted at the MATEP facility take place indoors; however, the facility does have certain activities which are exposed to stormwater. The majority of these activities are related to the operation and maintenance of the plant’s cooling towers and other ancillary equipment located on the roof, as well as the storage of spare parts or parts in need of servicing. Please refer to Section 3.3 of this plan for further delineation of activities occurring in the various drainage areas.

3.2 Management of Stormwater Runoff

The MATEP facility is designed with a series of roof drains that collect and discharge the facility’s stormwater via one of three outfall points. The facility has four (4) main drainage areas, designated Drainage Areas 001, 002, 003 and 004. Water collected on the rooftop is discharged via Outfalls 001, 002 (no industrial activity), 003, and 004 to the BWSC storm drain system described in Section 3.1.3.

3.3 Drainage Areas and Outfall Descriptions (Refer to Figure 3)

3.3.1 Drainage Area 001

The total area of Drainage Area 001, located on the Binney Street side of the property, is approximately 32,198 sq. ft. Drainage Area 001 is comprised entirely of impervious rooftop and machinery surfaces. Runoff from this drainage area is collected in a series of roof drains and flows into the Francis Street storm drain via a 15” drainage pipe in the basement of the MATEP facility. The stormwater exits the building at Outfall 001 and eventually drains into the Muddy River (see Figure 3 for exact location).

3.3.2 Drainage Area 002

No industrial activity takes place within Drainage Area 002. The total area of Drainage Area 002, located in the center of the MATEP facility on the Francis Street side, is approximately 2,015 sq. ft. Drainage Area 002 is comprised entirely of impervious rooftop surfaces. Runoff from this drainage area is collected in a series of roof drains and flows into the Francis Street storm drain via a 6" drainage pipe in the basement of the MATEP facility. The stormwater exits the building at Outfall 002 and eventually drains into the Muddy River (see Figure 3 for exact location).

3.3.3 Drainage Area 003

The total area of Drainage Area 003, located on the corner of Francis Street and Brookline Avenue, is approximately 5,235 sq. ft. Drainage Area 003 is comprised entirely of impervious rooftop and machinery surfaces. Runoff from this drainage area is collected in a series of roof drains and flows into the Brookline Avenue storm drain via an 8" drainage pipe in the basement of the MATEP facility. The stormwater exits the building at Outfall 003 and eventually drains into the Muddy River (see Figure 3 for exact location).

3.3.4 Drainage Area 004

The total area of Drainage Area 004, located along Brookline Avenue, is approximately 6,779 sq. ft. Drainage Area 004 is comprised entirely of impervious rooftop and machinery surfaces. Runoff from this drainage area is collected in a series of roof drains and flows into the Brookline Avenue storm drain via a 10" drainage pipe in the basement of the MATEP facility. The stormwater exits the building at Outfall 004 and eventually drains into the Muddy River (see Figure 3 for exact location).

3.3.5 Main Cooling Tower Fan Deck

The total area of Main Cooling Tower Fan Deck, located in the center of the MATEP facility, is approximately 22,580 sq. ft. The Fan Deck is comprised entirely of impervious rooftop and machinery surfaces. Stormwater collected in this area is retained in the cooling tower basin and is used as make-up water for cooling tower operations. There is no stormwater discharge to the environment from the Fan Deck (see Figure 3 for exact location). Blowdown from the cooling tower water system discharges to the sanitary sewer.

3.4 Inventory of Potential Pollutant Sources

3.4.1 Inventory of Significant Material Exposed to Stormwater

3.4.1.1 Drainage Area 001

The materials that could be potentially exposed to stormwater in Drainage Area 001 are metal parts and equipment, propane and nitrogen gas tanks/cylinders, occasional drummed oil and antifreeze transfers, and the potential for cooling tower process water overflow. Deaerator (DA) Venting occurs in Drainage Area 001 and could potentially allow steam from boilers to re-condense and release minor quantities of condensate onto the roof of the facility and into the

stormwater drainage system. There are four (4) gas compressors located on the roof that have oil containing equipment. The compressors are enclosed in weather tight enclosures with secondary containment, but maintenance activities do require handling oil containers (drums or buckets) in this area. In addition, the plant's ventilation exhaust fans from general plant ventilation are exhausted from the roof in this drainage area and the plant has industrial processes that are exhausted from the roof in this drainage area. These vents and stacks are operating in conformance with MATEP's existing air permits, however, emissions from exhaust stacks and vents can contain particulate matter, oil and/or steam condensate that comes in contact with stormwater (see Appendix L – Industrial Activity Exposure Documentation for further explanation).

Drainage Area 001 is located above the facility's Truck Run, which is a fully enclosed street-level loading area equipped with secondary containment for chemical and fuel deliveries. Due to the enclosed nature of the Truck Run, there is no potential for stormwater exposure.

3.4.1.2 Drainage Area 002

No industrial activity takes place within Drainage Area 002. There are no raw materials, intermediate materials, or byproducts which are stored in a manner normally allowing exposure to storm water in this area. The potential exists for cooling tower process water overflow to enter Drainage Area 002.

3.4.1.3 Drainage Area 003

The materials that could be potentially exposed to stormwater in Drainage Area 003 are the occasional drummed oil transfers and filter changes on the Diesel Crank Case Ventilation Exhaust Filters, and the potential for cooling tower process water overflow. During the winter months, MATEP personnel keep a supply of Ice Melt ($MgCl_2$ 10%- $NaCl$ 90%) in Drainage Area 003 to de-ice the roof when necessary for employee safety. In addition, the plant has industrial processes that are exhausted from the roof in this drainage area. These stacks are operating in conformance with MATEP's existing air permits; however, emissions from exhaust vents can contain particulate matter, oil and/or steam condensate that comes in contact with stormwater (see Appendix L – Industrial Activity Exposure Documentation for further explanation).

3.4.1.4 Drainage Area 004

There are no raw materials, intermediate materials, or byproducts which are stored in a manner normally allowing exposure to storm water in this area. The potential exists for cooling tower process water overflow to enter Drainage Area 004. In addition, the plant has industrial processes that are exhausted from stacks on the roof in this drainage area. These stacks are operating in conformance with MATEP's existing air permits, however, emissions from exhaust vents can contain particulate matter and/or steam condensate that comes in contact with stormwater (see Appendix L – Industrial Activity Exposure Documentation for further explanation).

3.4.1.5 Summary

Under normal operating conditions, potential sources of stormwater contaminant discharge include cooling tower process water overflow, transfer of oils and chemicals, storage of materials on the roof, weathering of rooftop equipment, and process venting from operations occurring

within the facility that are covered under MATEP’s existing air permits. The potential stormwater pollutants are described below.

Potential Pollutants	Source
Oil & Grease	Routine Maintenance
Crank Case Oil	Spill during transfer
Metal Parts and Equipment	Storage/Ongoing Maintenance
Various Chemicals	Spill during transfer
Industrial Process Water	Cooling Tower Overflow
Ice Melt (MgCl ₂ 10%-NaCl 90%)	Winter Storage/Usage
Particulate matter, oil and steam condensate	Emissions from Permitted Stacks
Iron	Weathering of Rooftop Equipment

3.4.2 Industrial Activities Exposed to Stormwater

Chemical and oil transfer and delivery activities in bulk and discrete quantities occur in a covered receiving area (“Truck Run”) within the building under the direct supervision of MATEP personnel and are completely enclosed and protected from stormwater. Two Truck Run delivery bays are equipped with secondary containment areas which drain to the South Coffey Dam under the Truck Run which has a nominal capacity of 236,000 gallons. The truck run is a fully enclosed area with capacity for two tank trucks at a time, and stormwater exposure is limited to periods when trucks are entering and exiting from the enclosed Truck Run area. Roll up doors protect both entrances of the Truck Run at all times except when trucks are actively entering or exiting.

3.4.2.1 Drainage Area 001

Drainage Area 001 includes the primary process venting systems and stacks for the MATEP facility. Specific industrial activities in Drainage Area 001 include ongoing maintenance and repair, drummed oil and antifreeze transfer, gear oil change-out activities, the venting of plant processes, the operation of cooling towers, and miscellaneous storage of propane, nitrogen and metal parts and equipment. Additionally, there are four (4) gas compressors located on the truck run roof that have oil containing equipment. The compressors are enclosed in weather-tight enclosures with secondary containment, but maintenance activities do require handling oil containers (drums or buckets) in this area.

3.4.2.2 Drainage Area 002

There are no industrial activities occurring in Drainage Area 002.

3.4.2.3 Drainage Area 003

Industrial activities in Drainage Area 003 primarily involve the change-out of the Diesel Crank Case Ventilation Exhaust Filters and the activities associated with this process, as well as the

venting of plant processes, the operation of cooling towers, and general ongoing cooling tower repair and maintenance.

3.4.2.4 Drainage Area 004

Industrial activities in Drainage Area 004 primarily involve the venting of plant processes, the operation of cooling towers, and general ongoing cooling tower repair and maintenance activities.

3.4.3 Potential Spills and Leaks

The potential for spills or leaks at the MATEP facility has been minimized since the majority of oil handling activities occur within enclosed portions of the facility and are protected from stormwater with secondary containment structures with volumes capable of handling 110% or more of the liquid being stored or transferred. The greatest potential for spills exists in Drainage Area 001 where transfer operations of gear oil, compressor oil, and antifreeze occur during gear and compressor oil change-out and intake air heat exchange coil draining activities. There is also a chance that a spill could occur in Drainage Area 003 during the Diesel Crank Case Ventilation Filter change-out. However, the chance that this activity could influence stormwater quality is minimal.

3.4.4 Non-Stormwater Discharge Background

The MSGP for stormwater discharges associated with industrial activity requires that all discharges authorized by the MSGP be composed entirely of stormwater. The MSGP also requires discharges of “material other than stormwater” be brought into compliance with another type of NPDES permit issued for that discharge.

The MSGP does allow certain “authorized non-stormwater discharges.” These are listed below. However, the authorized non-stormwater discharges must be identified in the Stormwater Pollution Prevention Plan and the Plan must describe the system of pollution prevention measures that will be used to control the quality of the discharges. The authorized non-stormwater discharges are runoff from:

- Fire-fighting activities
- Fire hydrant flushings
- Potable water sources including water line flushings
- Irrigation drainage
- Lawn watering
- Routine external building wash down (which does not use detergent or compounds)
- Pavement wash water where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material was removed) and where detergents are not used)
- Uncontaminated condensate from air conditioners, coolers/chillers, and other compressors and from the outside storage of refrigerated gases or liquids;Springs
- Uncontaminated groundwater
- Foundation and footing drain water that is not contaminated

- Incidental windblown mist from cooling towers that collects on rooftops but not intentional discharges from cooling towers (e.g., “piped” cooling tower blowdown or drains)

3.4.5 Non-Stormwater Discharge Evaluation

In addition, the MSGP requires that the SWPPP includes a certification that the stormwater discharges authorized by the MSGP have been tested or evaluated for the presence of non-stormwater discharges (not including authorized non-stormwater discharges). The certification must include the following information for each authorized discharge:

- The identification of potential significant sources of non-stormwater at the facility
- A description of the results of any test/evaluation for the presence of non-stormwater discharges
- The testing/evaluation methods and decision criteria used
- The date the testing/evaluation took place
- A listing of the drainage points directly observed during the testing/ evaluation process
- The actions taken to eliminate unauthorized discharges

MATEP conducted the required testing/evaluation of the facility stormwater drainage system during a site inspection conducted by TRC. The drainage area characteristics and associated activities are presented in Table 1. The drainage areas and outfall locations were identified and inspected on March 9, 2021. The inspection included visual inspections of the drainage system components such as roof drains, drainage pathways, and outfall locations. The inspection did not reveal any evidence of unauthorized discharges from the facility during the site visit. Authorized non-stormwater discharges that were observed by TRC consisted of condensate from the CTG air intake cooling coils and cooling tower mist.

3.5 Existing Stormwater Sampling Data

There have been no records of significant quantities of pollutants being discharged to the stormwater system by MATEP. All sampling results are kept on file at the MATEP facility and are available on request.

3.6 Non-Structural Controls

3.6.1 Existing Controls

MATEP completed a video inspection of the facility stormwater drain lines in 2015 and again in 2017, and the Outfall 004 drains in 2020. Based on the results of these inspections, MATEP cleaned those portions of the drain lines affected by sediment accumulation and scale. MATEP may periodically undertake additional video inspections and cleanings in the future as actual conditions warrant.

In 2023, MATEP replaced leaking pipes on the facilities roof.

The MATEP facility practices the following controls:

Roof Drains shall be cleaned as necessary and inspected for proper operation and/or the presence of pollutants annually. Debris/Sediment is removed from the roof drains as necessary to ensure proper operation. In addition, roof drain filters are replaced periodically; typically, once every three months.

- Direct supervision of unloading operations by trained MATEP employees.
- All rooftops and roof drains are kept in good working order.
- Good housekeeping activities which call for frequent inspection of all areas with immediate clean-up of errant materials such as trash and debris.
- Supervision by MATEP personnel of all visitors, contractors, and deliveries.
- Communicating to contractors the importance of clean-up, covering construction related debris and materials, and coordinating housekeeping activities with MATEP.
- The implementation of the facility SPCC Plan (ICP).
- Posting signage near select roof drains to remind employees and contractors that the roof drains discharge into the Muddy River.
- Installation of vent discharge lines that connect to CTG air inlet heating coil vent valves and empty into 55-gallon drums, so as to capture any release due to an inadvertent movement of the vent line valve position.

A punch list is maintained in Appendix M to assist the facility in achieving the objectives of the Plan.

3.6.2 Planned Non-Structural Controls

The CTG-3 air intake and exhaust duct work installation and relocation work were completed during 2017. The roof area was cleaned following the construction to remove any debris or materials that may have remained.

3.7 Structural Controls

3.7.1 Sedimentation and Erosion Controls

3.7.1.1 Drainage Area 001

All of Drainage Area 001 consists of impervious rooftops; no additional controls are warranted.

3.7.1.2 Drainage Area 002

No industrial activity takes place within Drainage Area 002. All of Drainage Area 002 consists of impervious rooftops; no additional controls are warranted.

3.7.1.3 Drainage Area 003

All of Drainage Area 003 consists of impervious rooftops; no additional controls are warranted.

3.7.1.4 Drainage Area 004

Structural controls for this area include roof drains and properly sloped roof angles to allow for the drainage of stormwater and minimize any accumulation or ponding.

3.7.2 Existing Structures

Based on video surveys conducted in 2015 and again in 2017, certain sections of cast iron stormwater drainpipe were replaced with new pipe. Cast iron pipe may oxidize in the presence of water and begin to degrade or corrode over time. This is commonly exhibited by cracking and pitting.

3.7.2.1 Drainage Area 001

Structural controls for this area include roof drains and properly sloped roof angles to allow for the drainage of stormwater and minimize any accumulation or ponding.

3.7.2.2 Drainage Area 002

No industrial activity takes place within Drainage Area 002. Structural controls for this area include roof drains and properly sloped roof angles to allow for the drainage of stormwater and minimize any accumulation or ponding.

3.7.2.3 Drainage Area 003

Structural controls for this area include roof drains and properly sloped roof angles to allow for the drainage of stormwater and minimize any accumulation or ponding.

3.7.2.4 Drainage Area 004

Structural controls for this area include roof drains and properly sloped roof angles to allow for the drainage of stormwater and minimize any accumulation or ponding.

3.7.2.5 Main Cooling Tower Fan Deck

The Fan Deck contains the facility's cooling tower operations and is adequately designed to collect any stormwater that comes in contact with the cooling tower process water. The cooling towers are equipped with automated valves on the suction piping designed to prevent the overflow of cooling tower process water onto the roof and into the facility's stormwater drainage system.

3.7.3 Planned Structural Controls

There are no planned structural controls scheduled.

3.7.4 Maintenance Controls

MATEP has an active preventative maintenance program in place for plant equipment, including stormwater management structures and air pollution control equipment. All such equipment and structures are inspected periodically in accordance with the PM schedule and repaired as needed to prevent pollution from being carried away in stormwater runoff.

The MATEP facility roof holds a significant array of metal equipment and structures, which require periodic painting and repair to prevent corrosion. Metal equipment and structures currently affected by corrosion were identified in a survey conducted in 2015. The identified structures have been painted in accordance with the survey. This also included cleaning and painting roof drain bowls and covers.

Based on video surveys conducted in 2015 and again in 2017, and of the Outfall 004 drains in 2020, certain sections of cast iron stormwater drainpipe were evaluated for cleaning or replacement with new pipe. Cast iron pipe may oxidize in the presence of water and begin to degrade or corrode over time. This is commonly exhibited by cracking and pitting. As of 2020, all sections identified in the video surveys that were affected by sediment and scale have been cleaned or replaced.

3.8 Other Controls

Other controls are those controls which are identified as minimizing the exposure of stormwater runoff to raw material, final product or waste materials, sedimentation, and airborne dust; it may also include structural controls such as velocity dissipative devices at outfalls.

MATEP employs the use of industry standard equipment to reduce pollution and protect the environment.

Implementing structural improvements, enhanced/resilient pollution prevention measures, and other mitigation measures can help to minimize impacts from stormwater discharges from major storm events such as hurricanes, storm surge, extreme/heavy precipitation, and flood events. MATEP has considered the following additional control measures and found them to not be applicable for the facility.

- Reinforce materials storage structures to withstand flooding and additional exertion of force.
- Prevent floating of semi-stationary structures by elevating to the Base Flood Elevation (BFE) level or securing with non-corrosive device.

- When a delivery of exposed materials is expected, and a storm is anticipated within 48 hours, delay delivery until after the storm or store materials as appropriate (refer to emergency procedures).
- Temporarily store materials and waste above the BFE level.
- Temporarily reduce or eliminate outdoor storage.
- Temporarily relocate any mobile vehicles and equipment to higher ground.
- Develop scenario-based emergency procedures for major storms that are complementary to regular stormwater pollution prevention planning and identify emergency contacts for staff and contractors.
- Conduct staff training for implementing your emergency procedures at regular intervals.

MATEP has considered the following additional control measures for major storm events and found them to be applicable to the facility:

- Temporarily reschedule maintenance of roof-top equipment so as to reduce or eliminate any outdoor storage of exposed materials or equipment that may be associated with those maintenance activities.

3.9 Employee Training

Trained employees are critical to achieving the objectives of the SWPPP. Therefore, Pollution Prevention Team (“PPT”) members, contractors and others as identified by the PPT, who may be working where significant materials are handled, will be given instruction that will provide information regarding:

- Environmental laws and regulations
- Pollution prevention concepts
- The goals of the SWPPP
- The content of the SWPPP
- The Pollution Prevention Systems to be utilized in all areas at the facility to minimize the pollutants in facility’s stormwater discharges
- The Best Management Practices that will be used to minimize potential contamination of stormwater
- Facility spill/release Emergency Response Procedures

The SWPPP training must be provided to all PPT members and other involved personnel as of the date of this Plan. Refresher training sessions must be held at least once per year, usually following the completion of the Site Compliance Evaluation and SWPPP revisions. Records of the date and personnel receiving training must be maintained at the facility (refer to Appendix K – Training Records).

3.10 Spill Prevention and Reporting

As required by the conditions of the MSGP, all spills will be recorded and documented within the SWPPP; all spills occurring within the 3 years prior to the initial preparation of the SWPPP must be documented as well. All facility personnel who would engage in emergency spill response should be fully trained and properly equipped. Detailed reports including date and time of the incident, location, volume and contents of spill, weather conditions, response procedures, parties notified, recommended revisions to the BMP program, operating procedures, and/or equipment needed to prevent recurrence will be completed by the PPT (Section 2.0).

In the event of a minor spill of a significant material, trained facility personnel will perform specific response procedures as are outlined in the MATEP ICP Plan (Available from the Environmental Health & Safety Manager). All facility personnel who would engage in emergency spill response will be fully trained and properly equipped. Spill control equipment is outlined in the SPCC Plan.

3.10.1 SWPPP Modification

As required by the conditions of the MSGP, all spills will be recorded and documented within the SWPPP. The SWPPP must be modified in accordance with Section 4.3.2 of the MSGP to address any deficiencies that allowed the spill to occur. In order to prevent recurrence of the spills, the PPT must complete detailed reports in Appendix I (Description of Reportable Quantity (RQ) Releases).

A blank copy of the Spill Report is available in Appendix I. Completed reports shall be stored within this plan in Appendix I. Modifications of this SWPPP are maintained in a log in Appendix N.

4.0 Stormwater Monitoring and Reporting

4.1 Record Keeping and Internal Reporting

It is recognized that spill and pollution prevention efforts can be enhanced by retaining records in an orderly manner in one location. The MSGP requires that records regarding stormwater pollution prevention activities be maintained at the facility for three years.

The SWPPP must be retained for at least three years from the date that the facility's coverage under this permit expires or is terminated.

The records retained must include:

- The Stormwater Pollution Prevention Plan
- Any previous Notice of Intent or Notice of Terminations previously filed
- The Notice of Intent to comply with the Multi-Sector General Permit
- All inspection reports
- All response reports related to corrective actions
- All spill reports

- All Annual Reports
- All revisions to the SWPPP
- All dike drainage logs
- All stormwater related maintenance reports
- All stormwater monitoring records
- All signed certifications

As a condition of the MSGP, the MATEP facility is required to conduct quarterly visual assessment of its stormwater discharges and indicator analytical monitoring of stormwater runoff for certain parameters/pollutants. The quarterly visual examination provides a simple, low cost means of assessing the quality of the discharge with immediate feedback. The analytical monitoring will generate water quality data that must be submitted to EPA. The Annual Report will summarize all the data from the previous year and provide a detailed report on stormwater conditions at the facility for EPA.

EPA has provided detailed guidance regarding how to collect stormwater run-off samples. Please refer to Appendix G and Section 4.6.3 of this plan. There are several variables that can greatly influence the quality of the run-off; adherence to correct procedures is critical if accurate data is desired.

4.2 Monitoring Locations and Substantially Identical Outfalls

Sampling Location Description:

- Outfall 001 – The discharge from Drainage Area 001, refer to Figure 3
- Outfall 003 – The discharge from Drainage Area 003, refer to Figure 3
- Outfall 004 – The discharge from Drainage Area 004, refer to Figure 3

Stormwater runoff samples from the MATEP facility will be collected from Outfalls 001, 003, and 004. The facility redesigned and modified the three stormwater sampling outfall ports in 2015. These changes have allowed the facility to more accurately measure pollutant levels in the facility's stormwater discharge. It is believed that sediment can accumulate in the sample line "drop legs" over time, biasing the sampling results. These changes are intended to allow for the collection of data that is more representative of actual storm water pollutant concentrations in MATEP's discharge.

There is no industrial activity occurring in Drainage Area 002

4.3 Routine Facility Inspections

Routine facility visual inspections designed to uncover potential spill conditions and other conditions with a potential to release pollutants into a stormwater discharge are conducted as part of the SWPPP. At least once each calendar year, the routine inspection must be conducted during a period when a stormwater discharge is occurring. Inspections must be performed by qualified personnel and with at least one member of the stormwater pollution prevention team participating.

Qualified personnel are those knowledgeable in the principles and practices of industrial stormwater controls and pollution prevention, and who possesses the education and ability to assess conditions at the industrial facility that could impact stormwater quality, and the education and ability to assess the effectiveness of stormwater controls selected and installed.

The routine inspection will be scheduled using the facility Work Order (WO) tracking system called MAXIMO. Quarterly, a WO will be issued to be completed in that quarter by the Operations Department. The Operations Manager (PPT Member) is responsible for verifying that the inspections have been properly carried out and that the completed inspection form is sent to the PPT Leader for review and filing. The areas to be inspected and the inspection frequency are listed in Table 2.

During each inspection, an inspection report form must be filled out.

- Blank inspection report forms (Routine Inspection Checklist) are available in Appendix F and will be printed out with the quarterly inspection Work Order.
- The inspection form will be discussed with the Shift Supervisor, who will arrange the appropriate response to the actual or potential problems identified during the inspection and notify the PPT Leader.
- The Shift Supervisor will take immediate actions if required to prevent a stormwater release or generate a Work Order to have any non-emergency conditions corrected. WO's generated from these inspections will be given the priority "EHS" designation in MAXIMO.
- The PPT leader will prepare a report describing the actions taken in response to the identification of an actual or potential problem and a copy will be included in Appendix E.
- Completed inspection forms will be maintained in Appendix F along with any action reports.

4.4 Annual Report

The Annual Report must be submitted to EPA electronically by January 30th for each year of permit coverage containing information generated from the past calendar year. The following information must be included:

- A summary of the past year's routine facility inspection documentation.
- A summary of the past year's quarterly visual assessment documentation.
- A summary of your past year's corrective action and any required Additional Implementation Measures (AIM) documentation. If the facility has not completed required corrective action or AIM responses at the time the facility submits the annual report, the facility must describe the status of any outstanding corrective action(s) or AIM responses. Also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that the facility is in compliance with the permit.

The Annual Report must also include a statement, signed and certified in accordance with Appendix D, Subsection 11 of the 2021 MSGP. The Annual Report must be filed electronically by January 30th of each year. Completed annual reports will be maintained in Appendix D of this plan and completed corrective action reports will be maintained in Appendix E.

4.5 Quarterly Visual Assessment Requirements

MSGP regulations define the four quarters of the year as January 1 to March 31; April 1 to June 30; July 1 to September 30; and October 1 to December 31. At least once each calendar quarter, visual inspections must be conducted by facility personnel or their qualified subcontractors to determine the quality of the stormwater discharge. As part of the quarterly visual assessment, at least one grab sample must be taken from Outfall 001, Outfall 003, and Outfall 004 during a measurable storm event, during each quarter.

If feasible, at least one quarterly visual assessment must capture snowmelt discharge as described in Section 3.2.4.3 of the 2021 MSGP. Because of the facility's urban location and the quantity of mechanical equipment and process vents and exhaust ducting on the roof, snow does not typically accumulate on the roof except in unusual circumstances involving large storm events or lower than normal ambient temperatures. As a result, capturing snow melt at least one quarter every year is not always feasible.

The stormwater is collected in a manner to assure that the samples are representative of the stormwater discharge. Samples are collected in a clean clear glass or plastic container and examined in a well-lit area. Samples are typically collected within the first 30 minutes of an actual discharge from a storm event or as soon as practicable after the first 30 minutes. Documentation should be provided if it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples are taken during a period with a measurable discharge from the site once snow melt has occurred.

For storm events, the sample should be from a storm event in which there were no previous stormwater events in the previous 72 hours (3 days) from the previous discharge. The 72-hour (3-day) storm interval does not apply if MATEP documents that less than a 72-hour (3-day) interval is representative for local storm events during the sampling period.

Visually inspect the sample for the following water quality characteristics:

- Color
- Odor
- Clarity
- Floating solids
- Settled solids
- Suspended solids
- Foam
- Oil sheen
- Other obvious indicators of stormwater pollution

Once the visual assessment has taken place, document the results of the visual assessments and maintain this documentation in Appendix G. Do not submit visual assessment findings to the EPA or the Massachusetts Department of Environmental Protection, unless specifically requested to do so. At a minimum, documentation of the visual assessment must include:

- Sample location(s)
- Sample collection date and time, and visual assessment date and time for each sample
- Personnel collecting the sample and performing visual assessment, and their signatures
- Nature of the discharge (i.e., runoff or snowmelt)
- Results of observations of the stormwater discharge
- Probable sources of any observed stormwater contamination
- If applicable, why it was not possible to take samples within the first 30 minutes
- Any corrective action required as a result of the visual assessment

As with any other activity onsite, health and safety are of utmost importance. Quarterly Visual Assessment Procedures and Inspection Forms are available and will be maintained in Appendix G.

4.6 Stormwater Monitoring and Reporting

In addition to the benchmark and indicator monitoring requirements detailed in this section, Sector O Facilities are also subject to Effluent Limitations based on Effluent Limitations Guidelines as defined in the MSGP for discharges from coal storage piles at Steam Electric Generating Facilities. MATEP does not employ the use of coal or store coal at the facility, and therefore, MATEP is not subject to effluent limitations based on effluent guidelines for discharges from coal storage piles.

4.6.1 Benchmark Stormwater Monitoring and Reporting for Sector O Facilities

The MSGP stipulates pollutant benchmark concentrations that may be applicable to a discharge. The benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are primarily for the site's use to determine the overall effectiveness of the control measures and to assist in knowing when additional corrective action(s) may be necessary to comply with the effluent limitations.

The facility is covered under "Sector O – Steam Electric Generating Facilities" of the MSGP. As indicated in Part 8, Sector-Specific Requirements for industry Activity, of the MSGP, facilities in this sector are no longer required to perform benchmark monitoring.

4.6.2 Indicator Monitoring

This permit requires indicator monitoring of stormwater discharges for three parameters – pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD) – for certain

sectors/subsectors and for polycyclic aromatic hydrocarbons (PAHs) for Subsector O1. Indicator monitoring data will provide the facility and EPA with a baseline and comparable understanding of industrial stormwater discharge quality and potential water quality problems. The indicator monitoring parameters are “report-only” and do not have thresholds or baseline values for comparison. Therefore, no follow-up action is triggered or required under this part. The facility may find it useful to evaluate and compare its indicator monitoring data over time to identify any fluctuating values and why they may be occurring, and to further inform any revisions to your SWPPP and stormwater control measures if necessary. Indicator monitoring is report-only and is neither benchmark monitoring nor an effluent limitation. Instead, it is a permit condition. Thus, failure to conduct indicator monitoring is a permit violation.

4.6.3 Schedule of Indicator Monitoring (pH, TSS, and COD)

The facility must conduct indicator monitoring of stormwater discharges for pH, TSS, and COD each quarter, beginning in your first full quarter of permit coverage.

4.6.4 Schedule of Indicator Monitoring (PAHs)

The facility must conduct indicator monitoring of stormwater discharges for PAHs bi-annually (i.e., sample twice per year) in the first and fourth years of permit coverage. The first year of permit coverage begins in the first full quarter of permit coverage, commencing no earlier than May 30, 2021, followed by two years of no monitoring. Bi-annual monitoring resumes in the fourth year of permit coverage for another year, after which the facility may discontinue bi-annual PAH monitoring for the remainder of your permit coverage.

4.6.5 Monitoring Periods

Refer to Section 4.2 for monitoring locations and descriptions. MATEP shall conduct indicator monitoring at Outfalls 001, 003 and 004. There is no industrial activity in Drainage Area 002. The monitoring requirements in this permit begin in the first full quarter following either May 30, 2021 or the date of discharge authorization, whichever date comes later.

- January 1 – March 31
- April 1 – June 30
- July 1 – September 30
- October 1 – December 31

The first monitoring quarter for benchmark monitoring was July 1, 2021 – September 30, 2021 and the first monitoring year for discharges to impaired waters or discharges subject to an effluent limitation guideline was July 1, 2021 – June 30, 2022. This monitoring schedule may be modified in accordance with Part 4.1.6 of the MSGP if the facility documents the revised schedule in the SWPPP. However, the facility must indicate in Net-DMR any 3-month interval during which the facility did not take a sample.

4.6.6 Sampling Parameters

All facilities covered under the MSGP that fall into Sector O are required to conduct quarterly sampling.

4.6.7 Sampling Procedure

Stormwater discharge from an outfall does not normally begin at the same instant that the rainfall begins. The lag time between the start of rainfall and the start of discharge flow depends on many factors. Such factors include the rainfall intensity, the size of the drainage area and the types of surface area drained. For example, it will take longer for discharge to begin during a light rainfall over a flat, grassy area than during a hard rain on a steep, paved parking lot. Obviously, stormwater sampling cannot begin until after the discharge has started. Sampling team members should be at the sampling point as soon as possible after the rainfall begins. It is desirable if they are ready to begin before the rainfall starts. The first samples should be taken in relation to the start of discharge, rather than the start of rainfall.

At the sampling location, stormwater runoff can be collected directly into the sample bottle, or if preferred, into a larger container. Excess solid material that may be floating on the surface or may be deposited on the bottom of the sampling port should be avoided. Usually, such materials are not representative. Solid materials floating in the column of the stormwater outfall may be collected if they are under one-half inch in size. The grab sample must be transferred from the large collection container to the sample bottle(s) simply by pouring the sample directly into the sample bottle(s) from the larger container. The sample must be kept well mixed during the transfer process.

4.6.8 Required Sample Bottles

The samples for pH, TSS, COD, and PAH are collected in the following bottles with the proper preservation:

- pH – Plastic 60mL unpreserved
- TSS – Plastic 950 mL unpreserved
- COD – Plastic 120 mL sulfuric acid preservative
- PAH – Two VOA unpreserved

Sampling personnel should have extra bottles on hand in case one is damaged upon receipt. The plastic bottles should be preserved with the preservation indicated above, which can be provided by a contracted analytical laboratory in the form of pre-preserved bottles. Unpreserved bottles may be used, but the laboratory must be notified upon submission of the samples that the samples will need to be treated prior to analysis.

4.6.9 Sample Preservation

Once a sample is collected, the plastic bottles should be preserved with the preservation in Section 4.6.8, and steps taken to preserve the chemical and physical integrity during its storage and transport to an analytical laboratory. All samples should be immediately cooled to a

temperature of 4°C (39.2°F) or less using ice (obtained before sampling). The cooled samples are then transported promptly to the designated laboratory.

As discussed above, some bottles may already contain small amounts of sulfuric acid preservative. The preservatives must be left in the containers. Pre-preserved containers should be handled with care, as the preservative is a strong acid.

Sample transfer should be kept to a minimum, as each transfer presents the potential to change the characteristics of the sample. Samples should be accompanied by an appropriate Chain of Custody form, available from the laboratory, while they are being stored or transported to a contracted analytical laboratory.

4.6.10 Sample Analysis

The facility must send the samples to a qualified laboratory for analysis. The laboratory must use an approved EPA method consistent with 40 CFR Part 136 analytical methods and use test procedures with quantitation limits at or below benchmark values for all benchmark parameters for which the facility is required to sample.

4.6.11 Sampling Waivers

The Multi-Sector General Permit allows for temporary waivers from performing sampling based on adverse climatic conditions and where a facility is both inactive and unstaffed. It also allows a waiver if a pollutant does not exist at the facility that is exposed to stormwater. Requirements for the Adverse Climatic Conditions and Inactive and Unstaffed Site can be found in Section 8.3.

4.6.12 Reporting Requirements

All monitoring data collected must be submitted to EPA using EPA's NetDMR system (available at www.epa.gov/netdmr), unless a waiver from electronic reporting has been granted (in which case a paper DMR form may be submitted) no later than 30 days after the complete laboratory results are received for all monitoring outfalls for the reporting period. The monitoring requirements (i.e., parameters required to be monitored and sample frequency) will be prepopulated on the electronic Discharge Monitoring Report (DMR) form based on the information that was reported on the NOI form (through the NDPES eReporting tool (NeT)). Accordingly, the following changes to the monitoring frequency must be reported to EPA through the submittal of a "Change NOI" form in NeT, which will trigger changes to the monitoring requirements in NetDMR:

- All indicator monitoring requirements have been fulfilled for the permit term.
- All impaired waters monitoring requirements have been fulfilled for the permit term.
- Indicator and/or impaired monitoring requirements no longer apply because the facility is inactive and unstaffed.
- Indicator and/or impaired monitoring requirements now apply because the facility has changed from inactive and unstaffed to active and staffed.
- A numeric effluent limitation guideline has been exceeded.

- A numeric effluent limitation guideline exceedance is back in compliance.

Once monitoring requirements have been completely fulfilled, the facility is no longer required to report monitoring results using NetDMR. If the facility has only partially fulfilled the indicator monitoring and/or impaired waters monitoring requirements (e.g., four quarterly average is below the benchmark for some, but not all, parameters; did not detect some, but not all, impairment pollutants), the facility must continue to use NetDMR to report the results but must report a “no data” or “NODI” code for any monitoring parameters that have been fulfilled. Analytical laboratory report will be maintained in Appendix H and DMRs will be maintained in Appendix J.

For indicator monitoring, submit sampling results to EPA no later than 30 days after receiving the complete laboratory results for all monitored outfalls for each quarter that you are required to collect samples, per Part 6.2.1.2. If samples are collected during multiple storm events in a single quarter (e.g., due to adverse weather conditions, climates with irregular stormwater runoff, or areas subject to snow), the facility is required to submit all sampling results for each storm event to EPA within 30 days of receiving all laboratory results for the event. Or, for any of the monitored outfalls that did not have a discharge within the reporting period, using NetDMR you must report using a “no data” or “NODI” code for that outfall no later than 30 days after the end of the reporting period.

As described in Section 4.8, the results of any monitoring required by this permit must also be sent to the appropriate Regional Office of the Massachusetts Department of Environmental Protection [attention: Bureau of Waste Prevention] if there is an exceedance of the benchmark. (Note: the facility is not subject to benchmark monitoring.)

4.6.13 Data Not Exceeding Benchmarks

As indicated in Section 4.6, benchmark monitoring is no longer required for Subsector O1.

4.6.14 Data Exceeding Benchmarks

As indicated in Section 4.6, benchmark monitoring is no longer required for Subsector O1.

4.7 Monitoring and Reporting for Discharges to Impaired Waters

Monitoring is required for all direct and indirect discharges to impaired waters in addition to the monitoring discussed in the previous sections. A review of the discharge locations for each outfall at the MATEP facility indicates that MATEP’s stormwater is discharged to the Francis Street and Brookline Avenue storm drainage system via Outfalls 001, 002, 003 and 004, and the BWSC system discharges to the Muddy River via BWSC storm drain outfall number 161. The Muddy River is an “impaired water” as defined by Section 303(d) of the Clean Water Act as it applies to Massachusetts. The location code of the Muddy River is “MA72-11, Muddy River.” The Muddy River has been determined to be impaired for the following pollutants as of March 2021:

- Aesthetic
- Odor
- Oil & Grease

- Turbidly
- Fish Consumption
- Pesticides (DDT) in Fish Tissue
- PCB in Fish Tissue
- Fish, Other Aquatic Life and Wildlife
- Bottom Deposits
- Dissolved Oxygen
- Flow Regime Modification
- Non-Native Aquatic Plants
- Oil and Grease
- Phosphorus, Total
- Physical Substrate Habitat Alterations
- Unspecified Metals in Sediment
- Primary Contact Recreation
- Escherichia Coli (E. coli)
- Odor
- Oil and Grease
- Turbidity
- Secondary Contact Recreation
- Odor
- Oil and Grease
- Turbidity

Monitoring is required annually in the first year of permit coverage and again in the fourth year of permit coverage, unless there is a detection of a pollutant causing an impairment, in which case annual monitoring must continue.

Since the site discharges to an impaired water (Muddy River), monitor for all pollutants for which the water body is impaired and for which a standard analytical method exists, once at each discharge point, stormwater discharging to impaired waters without an EPA-approved or established TMDL.

If sampling results indicate the monitored pollutant is detected in the discharge, but the facility has determined that its presence is caused solely by natural background sources, the facility may discontinue monitoring for that pollutant for the duration of your permit coverage.

To support a determination that the pollutant's presence is caused solely by natural background sources, the facility must document and maintain with your SWPPP, as required by Part 6.5 in the 2021 MSGP:

- An explanation of why the facility believes that the presence of the pollutant of concern in the discharge is not related to the activities or materials at your facility.
- Data and/or studies that tie the presence of the pollutant of concern in the discharge to natural background sources in the watershed.

Natural background pollutants include those that occur naturally as a result of native soils, and vegetation, wildlife, or ground water. Natural background pollutants do not include legacy pollutants from earlier activity on the site, or pollutants in run-on from neighboring sources that are not naturally occurring. However, the facility may be eligible to discontinue annual monitoring for pollutants that occur solely from these sources and should consult the applicable EPA Regional Office for related guidance.

4.7.1 Sampling Parameters and Requirements

Beginning in the first full quarter following May 30, 2021 or the date of EPA discharge authorization, whichever date comes later, the facility must conduct impaired waters monitoring at Outfalls 001, 003, and 004 for the pollutant(s) causing the impairment of the facility's receiving waters (Outfall 002 will not be monitored as there is no industrial activity occurring in Drainage Area 002).

4.7.1.1 Established TMDL Requirements

For receiving waters with an EPA approved TMDL, the facility is not required to monitor for the pollutant with an established TMDL unless the EPA informs the facility to do so. EPA should inform a facility as a part of the NOI review and permit issuance process. The facility will receive specifications on monitoring and frequency directly from the EPA. Of the list above, only the following pollutant has an established TMDL:

- Pathogens (*Escherichia coli*) – EPA Method 1103.1 and/or 1603

4.7.1.2 Non-Established TMDL Requirements

For pollutants causing an impairment without an approved TMDL, the facility is required to sample using a standard analytical method. TMDLs have not been established for the pollutants listed below. MATEP must perform sampling for the listed pollutants of concern for which a standard analytical method exists at each outfall as described in Section 4.2 of this Plan. Samples must be taken for the following pollutants and analyzed as indicated:

- Oil & Grease – There is currently no analysis required for this impairment.
- Taste and Odor – There is currently no analysis required for this impairment.
- Phosphorus (Total) – EPA Method 365.1, 365.2, 365.3, SM 4500-P-E.
- Turbidity – EPA Method 180.1.
- Oxygen, Dissolved – There is currently no analysis required for this impairment.
- PCB in Fish Tissue – There is currently no analysis required for this impairment.
- DDT in Fish Tissue – There is currently no analysis required for this impairment.

For any changes required in the SWPPP to meet the requirements of the MSGP, the facility must undertake additional monitoring within 30 days of corrective action implementation or during the next qualifying runoff event to verify that the modified BMPs are effectively protecting water quality. Only the pollutants with prior exceedances need to be monitored unless there is reason to believe that the modifications may adversely affect the other pollutants of concern.

All documentation pertaining to discharges to impaired waters monitoring shall be maintained within the SWPPP at the facility.

4.7.2 Sampling Procedure

Stormwater discharge from an outfall does not normally begin at the same instant that the rainfall begins. The lag time between the start of rainfall and the start of discharge flow depends on many factors such as the rainfall intensity, size of the drainage area, and the types of surface area drained. For example, it will take longer for discharge to begin during a light rainfall over a flat, grassy area than during a hard rain on a steep, paved parking lot. Obviously, stormwater sampling cannot begin until after the discharge has begun. Sampling team members should be at the sampling point as soon as possible after the rainfall begins, prior to the start of rainfall is preferable. The first samples should be taken in relation to the start of discharge, rather than the start of rainfall.

At the sampling location, stormwater runoff can be collected directly into the sample bottle, or if preferred, into a larger container. Excess solid material that may be floating on the surface or deposited on the bottom of the channel should be avoided. Solid materials floating in the column of the stormwater outfall may be collected if they are under one-half inch in size. The grab sample must be transferred from the large collection container to the sample bottle(s) simply by pouring the sample directly into the sample bottle(s) from the larger container. The sample must be kept well mixed during the transfer process.

4.7.3 Required Sampling Bottles

The samples for Pathogens, Siltation, Metals, and Nutrients must be collected in separate sample bottles at each sampling location. Sampling personnel should have at least one spare sample bottle of each type on hand in case of damage. The following sampling containers and applicable preservatives are required:

- Pathogens (E. Coli) – 125ml sterile container, not preserved (max. sample holding time is 6 hrs.)
- Phosphorus, total – 500 mL plastic, sulfuric acid preservative
- Turbidity – 100 mL plastic

4.7.4 Sample Preservation

Once a sample is collected, steps will be taken to preserve the chemical and physical integrity during its storage and transport to an analytical laboratory. All samples should be immediately

cooled to a temperature of 4°C (39.2°F) or less using ice (obtained before sampling). The cooled samples are then transported promptly to the designated laboratory.

Sample transfer should be kept to a minimum, as each transfer presents the potential to change the characteristics of the sample. Samples should be accompanied by an appropriate Chain of Custody form, available from the laboratory, while they are being stored and/or transported to the laboratory.

Sampling for E. Coli requires that the sample be taken to the Laboratory and analyzed within 6 hours of collection. The sample MUST be kept on ice from the time it is taken until analysis.

4.7.5 Sample Analysis

The facility must send the samples to a qualified laboratory for analysis. The laboratory must use an approved EPA method consistent with 40 CFR Part 136 analytical methods and use test procedures with standard quantitation limits.

4.7.6 Reporting Requirements

Reporting requirements for impaired water discharge monitoring are described in Section 4.6.8.

4.7.7 Data Not Exceeding TMDL

If the pollutant monitoring results for TMDLs, as presented in Section 4.7.1, are not detected in any of the first-year outfall samples, no further sampling is required, unless the TMDL has specific instructions to the contrary, in which case the facility must follow these instructions and requirements. The facility must keep records of this finding onsite with its SWPPP.

As noted in Section 4.7.1, the Muddy River has one established TMDL. TMDL requirements, will be provided by EPA.

4.7.8 Data Exceeding TMDL

If the pollutant monitoring results for TMDLs, as presented in Section 4.7.1, are detected in any of the first-year outfall samples, the facility must continue monitoring annually throughout the term of this permit, unless the TMDL specifies more frequent monitoring, in which case you must follow the TMDL requirements.

As noted in Section 4.7.1, the Muddy River has one established TMDL. TMDL requirements, will be provided by EPA.

4.7.9 Data Not Exceeding Background Levels

If the monitoring results for the pollutant without a written TMDL, as presented in Section 4.7.1, is not detected and not expected to be present in your discharge, or it is detected but the facility has determined that its presence is caused solely by natural background sources, the facility may discontinue monitoring for that pollutant until the fourth year of the permit term. To support a

determination that the pollutant's presence is caused solely by natural background sources, the facility must document and maintain with the SWPPP, as required by Part 6.5 of the 2021 MSGP:

- An explanation of why the presence of the pollutant of concern in the discharge is not related to the activities or materials at the facility.
- Data and/or studies that tie the presence of the pollutant of concern in the in the discharge to natural background sources in the watershed.

Natural background pollutants include those that occur naturally as a result of native soils, and vegetation, wildlife, or ground water. Natural background pollutants do not include legacy pollutants from earlier activity on your site, or pollutants in run-on from neighboring sources that are not naturally occurring. The facility must determine and document what the background level concentrations are for the pollutants without approved TMDLs listed in Section 4.7.1.

4.7.10 Data Exceeding Natural Background Levels

If the pollutant monitoring results for pollutants without written TMDLs, as presented in Section 4.7.1, are above the natural background levels, the facility must continue to monitor once per year at each outfall discharging stormwater to impaired waters without an EPA approved or established TMDL.

The facility must determine and document what the background level concentrations are for the pollutants without approved TMDLs listed in Section 4.7.1.

4.8 State or Tribal Monitoring Requirements

As required in Section 9.1.2.4 of the 2021 MSGP, the results of any monitoring [four samples required in the first year of the permit] required by this permit must be sent to the appropriate Regional Office of the MassDEP [attention: Bureau of Waste Prevention] if the monitoring identifies violations of any effluent limits or benchmarks for any parameter for which monitoring is required under this permit. In addition, any follow-up monitoring and a description of the corrective actions required and undertaken to meet the effluent limits or benchmarks must be sent to the appropriate MassDEP Regional Office [Attn: Bureau of Waste Prevention] (Note: the facility is no longer subject to benchmark monitoring.).

4.9 Significant Spill History

The facility must document all significant spills and leaks of toxic or hazardous pollutants that actually occurred at exposed areas or that drained to a stormwater conveyance on the property within the three years prior to the preparation of this SWPPP. Relevant spills of note are described below.

On December 15, 2016 at approximately 5:30 PM, a combustion turbine generator (CTG) air inlet heating coil vent valve was accidentally opened by a contractor, which allowed approximately 120 gallons of a 41% solution of propylene glycol to be released on the roof of the building. The solution was discharged through a nearby roof drain into the facility's stormwater drain system. Facility personnel visually inspected the storm drain outlet to the Muddy River outfall that serves

the area in which the facility is located and did not observe any signs of flow or other discharge. Boston Water and Sewer Commission (BWSC) was notified and responded to the incident on the same day as the release at approximately 7:15 PM. BWSC inspected the storm drain manhole potentially impacted by the release. Based on the elevation of the manhole outlet drain, it was determined that the release did not actually enter the BWSC system. As a result, any released material would have been contained in the dedicated storm drain and could not have impacted the environment. Clean Harbors responded to the release on December 16th at approximately 6:00AM and removed approximately 365 gallons from the affected stormwater manhole.

The CTG air inlet heating coil vent valves were not equipped with caps to prevent a discharge in the event a valve was to be opened inadvertently. As a corrective action, caps were initially installed on all vent lines and then replaced in 2017 with vent discharge lines that empty into 55-gallon drums, so as to prevent releases due to an inadvertent movement of the vent line valve position. Additionally, at the time of incident contractors communicated to foremen the importance of being aware of their surroundings and the need for prompt and accurate reporting of any action that may impact plant operations.

On March 29, 2017 at approximately 11:30 AM, a combustion turbine generator (CTG) air inlet heating coil vent was accidentally damaged by a contractor, which allowed approximately 90 gallons of a solution of propylene glycol to be released on the roof of the building. Approximately 50 gallons of the solution was discharged through a nearby roof drain into the facility's stormwater drain system. Facility personnel visually inspected the storm drain manhole that collects discharge from the facility and did not observe any signs of flow or other discharge. There was no precipitation immediately preceding, or at the time of, the incident. BWSC inspected the storm drain manhole potentially impacted by the release. Based on the elevation of the manhole outlet drain, it was determined that the release did not actually enter the BWSC system. As a result, any released material would have been contained in the dedicated storm drain and could not have impacted the environment. Clean Harbors responded to the release at approximately 3 PM and removed approximately 365 gallons of water and propylene glycol from the affected stormwater manhole.

Contractors involved in the incident were retrained in Hazard Recognition and Ladder Placement and Use and reviewed Critical Safety Devices. A communications plan for area specific hazards was also developed for construction-specific tasks.

On March 15, 2019 a failed pressure relief valve on the fuel gas compressor cooling system (FGC-1, 100 and 200) was leaking well under the pressure relief set point. This caused the cooling system lag pump to auto start. Make up water was added to the system manually in response to the low pressure event but did not increase system pressure. Upon further investigation, it was observed that the 50% ethylene glycol cooling solution was discharging to the roof drain system from the relief valve discharge outlet, which is at an elevated location on the 82' Level (roof). Spill absorbent pads were used to soak up spill in the immediate vicinity of the roof drain. Clean Harbors responded to the release on March 5th at approximately 6:30PM and removed approximately 273 gallons of water and trace amounts of ethylene glycol from the affected stormwater drain manhole.

BWSC inspected the storm drain manhole potentially impacted by the release. Based on the elevation of the manhole outlet drain, it was determined that the release did not actually enter the

BWSC system. As a result, any released material would have been contained in the dedicated storm drain and could not have impacted the environment.

The failed relief valve responsible for the release was isolated from the system and its discharge pipe rerouted into the building on the 64' Level. A containment drum was placed under the pipe outlet to capture any releases. The containment drum is located across from the PSG-3 economizer.

On April 29, 2022, MATEP's Cooling Towers 9 and 10 overflowed due to operator error and release around 16,000 gallons of cooling water to adjacent roof drains. The building roof drain discharges to a drain line under the Francis Street sidewalk, which then discharges to the Boston Water & Sewer Commission (BW&SC).

BW&SC was informed as required by regulation and they arrived at MATEP after approximately an hour to investigate the catch basins and Muddy River outfall. There were no immediate release clean-up activities required.

Operations will develop and train Operators on a new Standing Order which details changing source of cooling water for Chillers 4 and 5 from the Main Cooling Water System to the Seasonal Cooling Water System (Cooling Towers 9 and 10).

5.0 Endangered Species and Historic Places

5.1 National Historic Preservation Act Certification

Facilities with eligible industrial activities seeking coverage under the Stormwater Multi-Sector General Permit (MSGP) must certify that their industrial stormwater discharge, or the construction of Best Management Practices (BMPs) to control such discharge, either does not have the potential to affect a property that is either listed or eligible for listing on the National Register of Historic Places, or is eligible for coverage because of a previous agreement under the National Historic Preservation Act.

5.1.1 National Historic Preservation Act Eligibility Assessment

The MATEP facility has been in operation since 1980 under the direction of Advanced Energy Systems or another power provider, and neither the industrial activity onsite, nor the stormwater controls have changed significantly since that time. MATEP has been covered under the NPDES Multi-Sector General Permit since the origination of the permit in 1995 and is not expected to make any significant changes to the stormwater system at the facility.

A review of the National Register of Historic Places web site, <https://www.nps.gov/subjects/nationalregister/index.htm>, maintained by the National Register Information System on the Internet, was conducted in March 2021. Based on MATEP's coverage under a previous NPDES Industrial Multi-Sector Stormwater General Permit, and the lack of expected change to the facility's stormwater drainage system, MATEP is eligible for coverage under the MSGP 2021. Documentation of eligibility for coverage under the General Permit with regard to the National Historic Preservation Act is provided in Figure 2.

5.2 Endangered Species Act

Based on a review of data available from the National Marine Fisheries Service (NMFS) species New England map (<https://www.epa.gov/sites/production/files/2015-10/documents/new-england-map-nmfs.pdf>) and the U.S. Fish and Wildlife Service (USFWS) online mapping tool (<https://ecos.fws.gov/ipac/>), there are federally listed endangered / threatened species identified within the “action area” of the Facility. According to a review of the NMFS species New England map conducted in March 2021, the action area is located within a sturgeon-accessible watershed, which includes the shortnose sturgeon and Atlantic sturgeon. The action area is also within a subwatershed affecting coastal water quality. The ranges of leatherback, loggerhead, Kemp’s ridley, hawksbill, and green sea turtles include coastal waters of Massachusetts. According to a review of the USFWS online mapping tool conducted in March 2021, the Northern Long-eared Bat is included within the action area. No critical habitats for these species have been designated in the action area. Based on the current review of the USFWS and the NMFS resources and the similar research that was conducted in July 2015, there have been no changes to the ESA-listed species, critical habitat, or action area. The NMFS species New England map and the USFWS online mapping tool report that identify the endangered / threatened species are included in Appendix B.

6.0 SWPPP Availability

A copy of the current SWPPP must be retained as required by the MSGP at the facility in an accessible format. A complete SWPPP includes any documents incorporated by reference and all documentation supporting the facility’s permit eligibility, as well as the signed and dated certification page. Regardless of the format, the SWPPP must be immediately available to facility employees, EPA, state agency, the operator of an MS4 into which the facility discharges to, and representatives of the USFWS, or the NMFS at the time of an onsite inspection. The current SWPPP must also be made available to the public (except any confidential business information (CBI) or restricted information).

A hardcopy of the SWPPP is to be maintained at the facility and an electronic copy of the SWPPP will be available to the public at the following internet URL: <https://www.matep.com/chp-facility-information/>

Additionally, a sign has been posted as required at a safe, publicly accessible location in close proximity to the facility. The font is large enough to be readily viewed from a public right-of-way and the facility will perform periodic maintenance on the sign to ensure that it remains legible, visible, and factually correct. The sign conforms to the requirements detailed in the MSGP:

- The following statement: “[Name of facility] is permitted for industrial stormwater discharges under the U.S. EPA’s Multi-Sector General Permit (MSGP)”.
- The facility NPDES ID number.
- A contact phone number for obtaining additional facility information.
- One of the following:
 - The Uniform Resource Locator (URL) for the SWPPP (if available), and the following statement: “To report observed indicators of stormwater pollution, contact

[optional: include facility point of contact and] EPA at: [include the applicable MSGP Regional Office contact information found at <https://www.epa.gov/npdes/contact-us-stormwater#regional>].

- The following statement: “To obtain the Stormwater Pollution Prevention Plan (SWPPP) for this facility or to report observed indicators of stormwater pollution, contact [optional: include facility point of contact and] EPA at [include the applicable MSGP Regional Office contact information found at <https://www.epa.gov/npdes/contact-us-stormwater#regional>].

7.0 Corrective Actions and Additional Implementation Measures

7.1 Corrective Actions

When any of the following conditions occur or are detected during an inspection, monitoring or other means, or EPA or the operator of the MS4 through which you discharge informs you that any of the following conditions have occurred, you must review and revise, as appropriate, your SWPPP (e.g., sources of pollution; spill and leak procedures; non-stormwater discharges; the selection, design, installation and implementation of your stormwater control measures) so that this permit’s effluent limits are met and pollutant discharges are minimized:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by this or another NPDES permit to a water of the United States) occurs at your facility.
- A required control measure was never installed, was installed incorrectly, or is not being properly operated or maintained.
- Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).

If corrective action is needed, all reasonable steps to minimize or prevent the discharge of pollutants will be taken on the same day a condition is found if possible but no later than the following day. Document the existence of any conditions requiring corrective action within 24 hours of becoming aware of such condition. Corrective actions will be completed before the next storm event if possible and within 14 calendar days from the time of discovery (i.e., lab results). If the 14-day timeframe is not feasible, document why it is infeasible, prepare a schedule to complete the corrective action and complete within 45 days of discovery. If the completion of corrective action will exceed 45 days, EPA must be notified of the intention to exceed 45 days, the rationale for the extension and a completion date.

7.2 Additional Implementation Measures (AIM)

Note that since MATEP no longer has any benchmark monitoring requirements, the AIM requirements do not apply to MATEP. Sections 7.2 through 7.4 are included for reference only. Generally, for facilities that are affected by AIMs, after collection of 4 quarterly benchmark samples, if the average of the 4 monitoring values for any parameter does not exceed the benchmark, the monitoring requirements for that parameter have been fulfilled until the next required monitoring year. If, after the collection of 4 quarterly samples, the average of the 4

monitoring values for any parameter exceeds the benchmark, or if fewer than four quarterly samples are collected but a single sample or the sum of the samples exceeds the benchmark by more than four times the parameter, the Additional Implementation Measures (AIM) are triggered. There are three AIM levels:

- AIM Level 1
- AIM Level 2
- AIM Level 3

7.3 Baseline Status

Once the facility receives discharge authorization, the facility is in a baseline status for all applicable benchmark parameters. If an AIM triggering event occurs and the facility has proceeded sequentially to AIM Level 1, 2 or 3, the facility may return directly to baseline status once the corresponding AIM-level response and conditions are met.

7.4 AIM Triggering Events

If an annual average exceeds an applicable benchmark threshold based on the following events, the AIM requirements have been triggered for that benchmark parameter. The facility must follow the corresponding AIM-level responses and deadlines described in Section 5.2 of the MSGP unless the facility qualifies for an exception as described in Section 5.2.6.

8.0 Signature Requirements

8.1 Facility Management Certification

For a corporation, Plan certifications must be signed by a responsible corporate officer. A responsible corporate officer is a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or the manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Facility Management Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Scott Manning

Name (printed)

Plant Manager, MATEP

Title

Date

This page intentionally left blank

8.2 Non-Stormwater Discharge Evaluation Certification

I certify that all discharges (i.e., outfalls) have been tested or evaluated for the presence of non-storm water. Non-storm water discharges are not authorized under the General Permit, other than the following:

- Discharges from fire-fighting activities.
- Fire hydrant flushings.
- Potable water, including water line flushings.
- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids.
- Irrigation drainage.
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling.
- Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed).
- Routine external building washdown that does not use detergents.
- Uncontaminated ground water or spring water.
- Foundation or footing drains where flows are not contaminated with process materials.
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of your facility, but not intentional discharges from the cooling tower (e.g., “piped” cooling tower blowdown or drains).

Date of Test or Evaluation:	March 9, 2021
Method Used to Test or Evaluate Discharge:	Visual Inspection
Discharge Point/Drainage Area:	All Discharge Points and Drainage Areas
Describe Results from Test for the Presence of Non-Storm Water Discharge:	No Unauthorized Discharges or Connections Observed
Identify Potential Significant Sources:	Listed in Table 1
Name of Person Who Conducted the Test or Evaluation:	Roger Gosciminski, ESS Group, Inc.

Notes: 1) These results reflect only evaluations conducted by TRC personnel during site evaluations on the dates specified. All outfalls were evaluated for non-stormwater discharges. Refer to Figure 3 for the locations of these outfalls. 2) The visual inspections included observations of the discharge outfall for flow during dry weather and inspections of the outfall for visible pollutants or non-stormwater flows

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Title
Name (printed)	Date

This page intentionally left blank

8.3 Assessment Waivers

8.3.1 Waivers for Unstaffed and Inactive Sites

The Multi-Sector General Permit allows for a waiver from visual examination for facilities that are both inactive and unstaffed. The waiver is only intended to apply to these types of facilities when the ability to conduct the examination is severely hindered and results in the inability to meet the time and representative rainfall event specifications. The waiver is not intended to apply to remote facilities that are inactive and staffed, or typical logistical restraints, which may be difficult in nature. Whenever a facility is unable to perform visual examinations, a certification shall be maintained on site with the SWPPP stating that the facility is inactive and unstaffed and the ability to perform visual examinations within the required specifications is not possible. Advance approval from the EPA is not required for visual examination waivers.

8.3.2 Waivers for Adverse Climatic Conditions

The waiver for adverse climatic conditions is a temporary waiver and is only intended to apply to insurmountable weather conditions such as drought or dangerous conditions such as lightning, flash flooding or hurricanes. These events tend to be isolated incidents and are not to be construed as an excuse for not performing the visual examinations. The waiver is not intended to apply to difficult logistical conditions, such as remote facilities with few employees or discharge locations which are difficult to access. Whenever visual examinations cannot be performed within the specified quarterly period due to adverse climatic conditions, a substitute examination must be performed during a separate qualifying event in the next quarter, in addition to the examination already required for that quarter.

8.3.3 Alternate Certifications for Sampling Waiver

A discharger is not subject to the analytical monitoring requirements provided the discharger makes a certification for a given outfall or on a pollutant-by-pollutant basis in lieu of monitoring reports, under penalty of law, signed in accordance with signatory requirements, that material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, industrial machinery or operations or significant materials from past industrial activity that are located in areas of the facility within the drainage area of the outfall are not presently exposed to stormwater and are not expected to be exposed to stormwater for the certification period. The Alternative Certification for Sampling Waiver is found on the last page of this document.

The certification must be retained in the SWPPP and submitted to the EPA in accordance with the permit. In the case of certifying that a pollutant is not present, the permittee must submit the certification along with the monitoring reports. If the permittee cannot certify for an entire period, they must submit the date that exposure was eliminated and any monitoring requirements up until that date. The certification option is not applicable to compliance monitoring requirements associated with effluent limitations.

Waiver for Quarterly Visual Assessment Inactive and Unstaffed Site Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Name (printed)

Title

Date

Waiver for Quarterly Visual Assessment Adverse Climatic Conditions Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Name (printed)

Title

Date

Waiver for Alternate Certification for Sampling

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Outfall No. _____

Pollutant _____

Signature

Name (printed)

Title

Date

Appendix A: Copy of Notice of Intent (NOI)

Appendix B: Endangered Species Determination

Appendix C: Multi-Sector General Permit

Appendix D: Annual Reports

Appendix E: Corrective Actions

Appendix F: Routine Facility Inspections

Appendix G: Quarterly Visual Assessment Forms

Appendix H: Stormwater Analytical Data

Appendix I: Description of Reportable Quantity (RQ) Releases

Appendix J: Discharge Monitoring Reports

Appendix K: Training Records

Appendix L: Industrial Activity Exposure Documentation

Appendix M: Punch List

Appendix N: SWPPP Modification Log