



Division of Operations Environmental Implementation Procedure

Date: 2/10/11

Bureau: Highway Maintenance

Procedure EIP-10

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Monitoring and Measurement

Revision: 3.1

PURPOSE:

The purpose of this Environmental Implementation Procedure (EIP) is to establish, document, and implement methods to monitor and measure the key activities related to the Bureau's significant environmental aspects and impacts. Monitoring and measurement allows staff to track progress toward meeting objectives and targets (see EIP-5: Environmental Action Plans).

Monitoring and measurement are also important for verifying the Bureau's environmental performance, maintaining regulatory compliance, and assessing effectiveness of the EMS as a whole.

RESPONSIBILITY:

Office of Stewardship and Compliance (OSC):

- Provide oversight and assist Bureaus establish, document, and implement effective methods to monitor and measure key activities, systems, and regulatory compliance requirements applicable to Bureau operations.

Director/Bureau Administrator:

- Advocate that: 1) personnel under his/her supervision are trained in the importance of monitoring and measurement, and 2) adequate resources are available to support effective monitoring and measurement methods.

Bureau EMS Coordinator:

- Lead Bureau efforts to establish, document, implement, and review methods to monitor and measure key activities, systems, and regulatory compliance requirements applicable to Bureau operations.

Bureau Employees:

- Understand the Bureau's key activities that are being monitored/measured and the methods used to monitor/measure those activities.
- Provide information to the EMS team about any changes in Bureau activities that could change how they are monitored or measured.

DOCUMENTS AND RECORDS:

- EIP-10-Form 10a Monitoring and Measurement Matrix



PROCEDURE:

1. The Bureau EMS Team reviews the list of activities and operations having significant aspects and impacts.
2. The Bureau EMS Team identifies the key characteristic(s) of the activity or operation that are, or can be, monitored or measured and incorporate into a matrix. For example, fuel storage operations may have been identified as having a significant environmental impact due to the potential for fuel spills from overfilling a tank. One of several key characteristics of fuel storage operations would be the quantity of fuel in the tank at any time.
3. The Bureau EMS Team use the Monitoring and Measurement Matrix (EIP-10-Form 10a) to track the method(s) currently in place to monitor and measure those key characteristics, such as:
 - Equipment and systems checks and routine inspections.
 - Preventative maintenance records.
 - Calibration checks of equipment or devices.
 - Regulatory compliance aspects and compliance monitoring records.
 - Data and records associated with environmental permits.
 - Findings from internal and external compliance and EMS audits.
 - Data collected to track progress on objectives and targets (PIs, metrics).

In the fuel tank example, identify how fuel levels in the tank are being measured or monitored (i.e., via a continuous monitoring system, manually by sticking the tank). Also identify the legal and regulatory requirements applicable to tank inventory control.

4. OSC and the Bureau EMS Coordinator identify and review the key documents and records, regulatory requirements, and procedures or work instructions associated with monitoring and measurement methods. If none exist, or they are inadequate, develop and implement procedures and recordkeeping methods that provide effective monitoring and measurement. In the fuel tank example, a written procedure should specify that fuel levels in the tank must be checked by a certain method prior to fuel deliveries. A key record would document the level of fuel in the tank at the time of fuel delivery.



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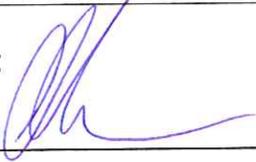
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- 5. The Bureau EMS Coordinator maintains all documentation and key records generated as part of this EIP in accordance EIP-9: Documentation, Document Control, and Records Management.

Approved: 	Revision #: <u>3.1</u>
Name _____	Revision Date: <u>2/10/11</u>
Title <u>State Maint Engineer</u>	Supersedes
Date <u>2/15/11</u>	Revision #: <u>3.0</u>

**New Hampshire Department of Transportation
Bureau Of Highway Maintenance**

**Monitoring and Measurement Matrix
EIP-10-Form 10a**

Activity and Key Characteristic(s)	Monitoring Method	Frequency	Person Responsible	Metrics / Performance Indicators
Fuel Storage – UST	Visual Inspection	Visual check weekly and during monthly inspection checklist.	Patrol Foreman	IMP past due notifications
Chemical Storage -				
Regulated Substance			Patrol Foreman	Weekly Inspection Checklist Records.
Hazardous Waste (storage)	SQG Accumulation Log	90 Days	SEC Coordinator	Weekly Inspection Checklist Records.
Universal Waste	Inventory & Removal	Annual	SEC Coordinator	Annual Facility Inspections and Bill of Lading Records
Used Oil for Recycling	Weekly Inspections	Weekly	Patrol Foreman	Bill of Lading Records

