

## Mark Kirouac

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**From:** Russell St.Pierre  
**Sent:** Tuesday, February 08, 2011 8:51 AM  
**To:** Allan Barrington; Melissa Provost; Mary Fox; Mark Kirouac; Brian Pike  
**Subject:** EMS Audit Information

Hey All,

Just to let you know that I have posted two items under G:\EMSAUDIT. The first is GZA's Audit Plan. It lays out in general detail what they are planning to do. It also contains a general schedule of anticipated activity dates. I am expecting a more detailed schedule later this week that should indicate specifics about the order in which the Bureaus will be audited, facilities that will be visited, and people to be interviewed.

The second item, something I think you already have, is the "manual" requirements from the AOC. The manual is a document required by the AOC, one for each Bureau, and subject to eventual DES approval. This manual, or something very similar to it, will also probably satisfy the anticipated request for documentation that GZA will be making to each Bureau prior to the audit.

If you have any questions, let me know.

Russ



## AOC to EIP Cross Reference Table

Administrative Order by Consent – EMS Manual Requirements <small>(Appendix B, Pages 4 - 10)</small>	NHDOT EIP #
10. The EMS Manuals shall address the following elements:	
<b>A. Management Policies and Procedures.</b>	
1) DOT's Environmental Policy - This policy must clearly communicate management commitment to achieving and maintaining compliance with applicable environmental requirements.	EIP-1
2) Site-specific Environmental Procedures and Practices.	
a. Includes a compilation of general principles, policies, rules, and procedures for site-specific environmental practices.	All EIPs, SOPs, and WIs collectively. Refer to EIP-9 and EIP-9 Forms for lists
b. Describes a process for developing, approving, and communicating standard operating practices for activities having potentially adverse environmental or regulatory compliance impacts.	EIP-11
c. Clearly identifies organizational responsibilities for maintaining regulatory compliance, including required reporting to regulatory agencies.	EIP-6
d. Includes a means of ongoing communication of duties and responsibilities under the EMS to employees, on-site service providers, and contractors, and for receiving and addressing their concerns.	EIP-8
e. Establishes and describes processes to ensure sustained interaction with regulatory agencies, as appropriate, and within the agency (e.g., between the various divisions, contractors, and officials and employees responsible for environmental, health and safety issues) regarding environmental requirements and regulatory compliance.	EIP-3, EIP-6, EIP-8
<b>B. Organization, Personnel, and Oversight of EMS.</b>	
1) Describes, organizationally, how the EMS is implemented and maintained.	EIP-6
2) Includes organization charts that identify units, line management, and other individuals having environmental performance and regulatory compliance responsibilities.	EIP-6
3) Identifies and defines duties, roles, responsibilities, and authorities of key environmental program personnel in implementing and sustaining the EMS (e.g., could include position descriptions and performance standards for all officials and employees responsible for environmental, health and safety issues, and excerpts from others having specific environmental program and regulatory compliance responsibilities.)	EIP-6
<b>C. Accountability and Responsibility.</b>	
1) Describes accountability and responsibilities of DOT's management, on-site service providers, and contractors for environmental protection practices, compliance, required reporting to regulatory agencies and to the public, and corrective actions implemented in their area(s) of responsibility.	EIP-6, EIP-8
2) Describes potential consequences for departure from specified operating procedures, including, but not limited to, liability for civil/administrative penalties imposed as a result of noncompliance.	EIP-6, EIP-11
<b>D. Environmental Requirements.</b>	
1) Describes process for identifying, interpreting, and effectively communicating environmental requirements to affected DOT personnel, on-site service providers, and contractors, and ensuring that facility activities conform to those requirements.	EIP-7, EIP-8
2) Establishes procedures for prospectively identifying and obtaining information about changes and proposed changes in environmental requirements that may be applicable to DOT's operations and facilities, and incorporating those changes into the EMS as appropriate.	EIP-3
<b>E. Assessment, Prevention, and Control.</b>	
1) Identifies an ongoing process for assessing operations for the purposes of preventing and controlling pollutant releases, ensuring environmental protection, and maintaining compliance with statutory and regulatory requirements. This section shall describe monitoring and measurements, as appropriate, to ensure sustained compliance.	EIP-2, EIP-4, EIP-5, EIP-10, EIP-13
2) Describes process for identifying those operations, activities and waste streams where equipment malfunctions and deterioration, operator errors, and discharges or emissions may be causing, or may lead to: (a) adverse environmental impacts and/or regulatory noncompliance; (b) releases of hazardous waste or other pollutants to the environment; or (c) a threat to human health or the environment. Identifies where documented standard operating practices need to be	EIP-2, EIP-4, EIP-5, EIP-10, EIP-11

## AOC to EIP Cross Reference Table

Administrative Order by Consent – EMS Manual Requirements (Appendix B, Pages 4 - 10)	NHDOT EIP #
10. The EMS Manuals shall address the following elements: developed (see element A.2.b. above).	
3) Describes a system for conducting and documenting routine, objective, self-inspections by designated and trained staff, especially at locations identified by the process described in E.2. above.	EIP-14, EIP-15
4) Describes a process for evaluating identified problems using root-cause analysis or other appropriate techniques in order to develop remedies and prevent recurring issues.	EIP-13
5) Describes a process for ensuring input of environmental requirements or other relevant considerations in planning, design, and operation of ongoing, new and/or changing buildings, processes, maintenance activities, and products.	EIP-11, EIP-12
<b>F. Environmental Incident and Noncompliance Investigations.</b>	
1) Describes standard procedures and requirements for incident and noncompliance reporting.	EIP-12, EIP-13
2) Establishes procedures for investigation of incidents and potential noncompliance.	EIP-12, EIP-13
3) Describes a system for development, tracking, and effectiveness verification of corrective and preventive actions.	EIP-13
4) Each of these procedures shall specify testing of such procedures, where applicable.	EIP-12
<b>G. Environmental Training, Awareness, and Competence.</b>	
1) Identifies specific environmental education and training required for DOT personnel, and a process for documenting the training provided.	EIP-7
2) Describes a program to ensure that DOT employees receive or have received the environmental education and training identified in G.1. above, are aware of its environmental policies and procedures, environmental requirements, and their roles and responsibilities within the environmental management system.	EIP-7
3) Describes a plan for ensuring that personnel responsible for meeting and maintaining compliance with environmental requirements are competent on the basis of appropriate education, training, and/or experience.	EIP-7
<b>H. Record Keeping and Document Control.</b>	
1) Describes a system of identification, control and maintenance of documents required under and in support of the EMS and a protocol for responding to inquiries and requests for release of information.	EIP-9
2) To the extent not encompassed within the system developed pursuant to H.1. above, specifies the data management systems for any internal waste tracking environmental data, and hazardous waste determinations.	EIP-9
<b>I. Pollution Prevention Policy.</b> Describes an internal policy for preventing, reducing, recycling, reusing, and minimizing waste and emissions, including procedures to encourage material substitutions, as appropriate.	EIP-1
<b>J. Continuing Program Evaluation and Improvement.</b>	
1) Describes a program for periodic (at least annually) evaluation of the EMS by management and appropriate trained personnel, including incorporating the results of the assessment into program improvements, revisions to the EMS Manual, and communicating findings and action plans to affected employees, on-site service providers, and contractors,	EIP-14, EIP-16
2) Describes a program for periodic audits of facility compliance with environmental requirements. Audit results are reported to upper management and potential violations are addressed through the process described in Element F. above. Such periodic audits shall take place at least once every three years. DOT shall provide to DES a copy of the audit report following its first periodic audit within 30 days of completion of the first periodic audit conducted after the Audit sequence describe in Appendix A.	EIP-15, EIP-16
<b>K. Annual Reporting.</b> Describes a plan for annual reporting to the general public, legislators, DES and other stakeholders about the progress made in implementing- the EMS and the environmental and other benefits achieved through EMS implementation.	EIP-8



**ENVIRONMENTAL MANAGEMENT  
SYSTEM AUDIT PLAN  
DIVISION OF OPERATIONS  
THE STATE OF NEW HAMPSHIRE -  
DEPARTMENT OF TRANSPORTATION**

**PREPARED FOR:**

New Hampshire Department of Transportation

*and*

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## 1.0 INTRODUCTION



GZA GeoEnvironmental, Inc. (GZA) has prepared this audit work plan and schedule to conduct comprehensive environmental management system (EMS) review and evaluation as outlined in Appendix B of the New Hampshire Department of Transportation's (NHDOT's) Administrative Order by Consent (AOC) with the New Hampshire Department of Environmental Services (NHDES). The work plan includes the following elements:

- Project background and objectives;
- Scope of work for on-site audits;
- Schedule and logistics; and
- Reporting.

The draft work plan will be submitted to NHDOT and NHDES for review and comment. NHDES will have sole discretion for final acceptance of the work plan and the scope of activities outlined herein.

## 2.0 PROJECT BACKGROUND AND OBJECTIVES

In June 2007, NHDES issued an AOC to NHDOT regarding compliance issues pertaining to hazardous materials management at its operations facilities. As part of the AOC, NHDOT agreed to develop and implement an EMS for each of the Bureaus with its Division of Operations, including the following:

- Bridge Maintenance;
- Highway Maintenance;
- Mechanical Services;
- Traffic; and
- Turnpikes.

The goals of the EMS are to assist in ensuring compliance with applicable environmental requirements, to improve overall environmental performance at NHDOT's Division of Operations facilities, and to promote employee awareness, education, and involvement in the environmental aspects of NHDOT operations.

Appendix B of the AOC, titled "Environmental Management System," outlined specific requirements and a schedule for development and implementation of the EMS. To date, NHDOT has completed Paragraphs 1 through 13 of Appendix B, which has encompassed selecting an EMS consulting firm, and, with their assistance and oversight from NHDES, developing and implementing an EMS.

As an additional requirement, Paragraph 14 of Appendix B requires that, within three years of the effective date of the AOC, NHDOT must select an independent environmental auditing firm to perform a comprehensive audit of EMS implementation. GZA was selected, retained, and approved by NHDES as NHDOT's independent auditing firm through a pre-qualification and competitive bidding process in 2010.



As an independent EMS audit firm, GZA is tasked with completing Paragraphs 15 through 20 of AOC Appendix B for each of the NHDOT Bureaus identified above. Specific details regarding GZA's EMS audit are outlined in the following section of this work plan. The overall objectives of the EMS audit are to determine the following for each NHDOT Division of Operations Bureau:

- Whether there is a defined system, subsystem, program, or planned task for the respective EMS element;
- To what extent the system, subsystem, program, or task has been implemented and is being maintained;
- Adequacy of each operation's internal self-assessment procedures for programs and tasks composing the EMS;
- Whether NHDOT is effectively communicating environmental requirements to affected parts of the organization, contractors, and on-site service providers;
- Whether further improvements should be made to the EMS;
- Whether there are observed deviations from NHDOT's written requirements or procedures; and
- Whether there is a system to ensure maintenance of compliance and environmental improvement objectives.

GZA's scope of work, schedule, and logistics for achieving these objectives is outlined in the following sections.

### **3.0 AUDIT SCOPE OF WORK**

GZA will complete an independent audit of NHDOT's Bridge Maintenance, Highway Maintenance, Mechanical Services, Traffic, and Turnpike Bureaus in accordance with the requirements outlined in AOC Appendix B. GZA's audit will be conducted in accordance with the requirements of ISO 19011, and will compare each Bureau's EMS to (a) the ISO 14001:2004 framework; and (b) the specific requirements of Paragraph 10, Elements A through J, of Appendix B (as presented above in Section 2). The following subsections provide a listing of the specific facilities to be audited within each Bureau, and the EMS audit methodology, including a description of the on-site agenda for each facility audit and the detailed checklist that will be used to complete each audit.

#### **3.1 FACILITIES TO BE AUDITED**

GZA will audit the following NHDOT facilities (listed by Bureau):



### Bridge Maintenance

- John O. Morton Building – Room 240;
- Portsmouth Crews 712 and 715;
- Franklin Crew 713F; and
- An additional three of the Bureau's 13 Maintenance Crews.

### Highway Maintenance

GZA will audit the headquarters operations of Highway Maintenance and facilities in all six of the districts operated by this Bureau:

- John O. Morton Building – Room 120;
- District 1 – Lancaster administrative office, six patrol sheds (of 23), and one gravel pit;
- District 2 – Enfield administrative office, five patrol sheds (of 17) and one gravel pit;
- District 3 – Gilford administrative office, five patrol sheds (of 16), one gravel pit, Moultonborough warehouse;
- District 4 – Swanzey administrative office, five patrol sheds (of 16), and one gravel pit;
- District 5 – Bedford administrative office, six patrol sheds (of 19), and one gravel pit; and
- District 6 – Durham administrative office, four patrol sheds (of 13), and one gravel pit.

### Mechanical Services

- Concord administrative office;
- Two of the Bureau's five satellite garages; and
- Stickney Avenue facility in Concord.

### Traffic

- All operations and administrative office at Smokey Bear Boulevard, Concord.

### Turnpikes

- Hooksett administrative office;
- Two of the Bureau's five patrol sheds; and
- Two of the Bureau's 10 toll plaza maintenance buildings.

Audits for all Bureaus and facilities will be scheduled as described in **Section 4.0** of this work plan.

## 3.2 AUDIT PROCEDURES AND AGENDA

GZA will complete the audit of each of the facilities noted above in accordance with the requirements of ISO 19011 and AOC Appendix B. GZA will utilize trained auditors who will follow specific audit protocols and checklists provided as part of this work plan.



### 3.2.1 Pre-Audit Activities

Once authorization to proceed (i.e., final approval of this work plan) has been received from NHDES and NHDOT, GZA will finalize the facility audit schedule for each NHDOT Bureau, and will provide timely notification to NHDES and the Attorney General's Office so that personnel from each of these agencies can accompany the GZA auditors on their site visits, if desired.

Prior to initiating the on-site audits, GZA auditors will review NHDOT's EMS Manual (April 2009), EMS Procedures (March 2010), and EMS Forms, and will request and review the EMS Manual for each of the Bureaus to be audited. GZA will also provide the Bureau with a listing of NHDOT key personnel that we will need to interview for each Bureau, including the Bureau Administrator and Safety & Environmental Coordinator. We will also provide a copy of the checklist that will be used to complete the audit, and listing of documentation that we would like to review during the audit.

GZA's pre-audit information request is intended to improve the efficiency of on-site audit activities by assisting the facility to plan and organize facility information and personnel schedules for the audit visit. However, the actual scope of the on-site audit will be guided by information gathered both during pre-audit and on-site audit activities, and based on their on-site findings, GZA auditors may request access to additional personnel and/or documentation that was not requested as part of the pre-audit information request.

### 3.2.2 On-Site Audits

GZA's on-site audit will include the following activities:

- A brief opening meeting with facility managers/supervisors (approximately 5 to 15 minutes) to discuss the overall approach for the on-site audit;
- Interviews with facility key personnel, including managers, supervisors, and personnel;
- File/records and documentation review, including training records;
- Spot observations of facility operations; and
- A brief closing conference with facility managers/supervisors (approximately 10 to 20 minutes) to provide a preliminary review of key findings.

GZA's on-site audit activities will be focused to address the key audit objectives outlined previously in **Section 2.0**, and will be guided by NHDOT Division of Operations EIP-14-form 14a, EMS Audit Checklist (included as **Appendix A** to this work plan). The specific 16 EMS elements that will be reviewed are:

- Environmental Policy;
- Environmental Aspects and Impacts;
- Legal and Other Requirements;
- Objectives, Targets, and Programs;
- Environmental Action Plan;
- Organization, Personnel, Accountability, and Responsibility;
- Competence, Training, and Awareness;
- Internal and External Communication and Reporting;



- Documentation, Document Control, and Records Management;
- Monitoring and Measurement;
- Operational Control;
- Emergency Preparedness and Response;
- Nonconformity, Preventive and Corrective Action;
- EMS Evaluation;
- Compliance Evaluation; and
- Management Review.

GZA will document its audit findings through completion of the Audit Checklist, utilizing the Findings Tracking Log that is included as an attachment to the Audit Checklist. We will maintain written records of interviews and will reference specific documents that are the basis for our findings, but will avoid extensive photocopying of records or documentation that can be readily accessed as part of the facility's EMS files. We will document observations of site operations, including EMS aspects and impacts, with digital photographs as needed to support our audit findings.

Audit reporting is described in **Section 5.0** of this work plan.

#### 4.0 AUDIT SCHEDULE AND LOGISTICS

GZA's anticipated schedule for this project, based on the overall project notice to proceed date provided by the NHDOT and the deadlines outlined in the AOC, is as follows:

- |   |                             |
|---|-----------------------------|
| • GZA Notice to Proceed from NHDOT                      | December 10, 2010           |
| • GZA Submittal of Draft Audit Work Plan to NHDOT/NHDES | January 18, 2011            |
| • NHDES Comments Received for Draft Audit Work Plan     | February 2, 2011            |
| • GZA/NHDOT Response to Comments/Final Work Plan        | February 17, 2011           |
| • Facility Audit Scheduling                             | February 17 – March 1, 2011 |
| • NHDES Notice to Proceed                               | March 1, 2011               |
| • Facility Audits                                       | March 7 – May 13, 2011      |
| • Draft Audit Reports Due to NHDOT/NHDES                | June 2, 2011                |
| • Comments on Draft Audit Reports Received by GZA       | June 16, 2011               |
| • Final Audit Reports Submitted to NHDOT/NHDES          | June 30, 2011               |

GZA proposes to begin arranging site visits with individual facilities during final review of the audit work plan by NHDES, but will not finalize the audit schedule until the scope of work has been approved by NHDES. As noted, GZA will ensure that NHDES and the Attorney General's Office are provided with sufficient notice regarding the schedule for facility audits to allow for personnel from these agencies to accompany the GZA auditors on their site visits.



GZA proposes to utilize a small team of two trained auditors to perform all of the audits for this project. Initial audits will be performed by both auditors and the project manager to provide on-site verification of audit protocols and procedures and ensure consistency. Following this initial phase, an individual GZA auditor will perform the audit at each site. GZA will audit the headquarters operation of each Bureau prior to beginning the audits of the Bureau's field operations. We anticipated auditing on average approximately six facilities per week.

## 5.0 REPORTING

GZA will prepare draft audit reports for each of the five NHDOT Division of Operations Bureaus that will be audited for this project. Draft reports will be submitted concurrently to NHDOT and to NHDES as required by Appendix B, Paragraph 19 of the AOC. GZA's reports will present the audit findings and will include the following information:

- Audit scope, including the period of time covered by the audit;
- The dates the on-site portion of the audit was conducted;
- Identification of audit team members;
- Identification of NHDOT representatives and regulatory agency personnel observing the audits;
- The distribution list for the EMS audit report;
- A summary of the audit process, including any obstacles encountered;
- Detailed audit findings, including the basis for each finding and each area of concern identified;
- Identification of any audit findings or areas of concern that were addressed during the audit, and a description of the corrective measures implemented;
- Recommendations for improvement to the EMS; and
- Certification by GZA that the audit was conducted in accordance with the provisions of the AOC.

In accordance with the requirements of the AOC and based on the anticipated notice to proceed from NHDES by March 1, 2011, GZA anticipates completion of draft audit reports for the five Bureaus by June 2, 2011, with NHDES comments received within 15 days of submittal and NHDOT/GZA response to comments and submittal of final reports within 15 days after receipt of comments from NHDES.

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**APPENDIX A**  
EMS AUDIT CHECKLIST

NHDOT Division of Operations  
EIP-14-Form 14a

Bureau/District \_\_\_\_\_  
Auditors \_\_\_\_\_

EMS Audit Checklist

Date \_\_\_\_\_

EIP-1. Environmental Policy		Conformance	
		Y	N
<b>Requirements</b>			
1.	Has the organization defined and documented its environmental policy?		
2.	Is the policy appropriate to the organization's activities and their potential environmental impacts?		
3.	Does the policy include commitments by management for the following? <ul style="list-style-type: none"> <li>• Continual environmental improvement</li> <li>• Prevention of pollution</li> <li>• Comply with environmental regulations, and other requirements to which the organization subscribes</li> </ul>		
4.	Does the policy provide a framework for setting environmental objectives and targets?		
5.	Is the policy implemented, maintained and communicated to all persons working for or on behalf of the organization, including suppliers and contractors?		
6.	Is the policy available to the public?		

**NHDOT Division of Operations  
EIP-14-Form 14a**

Bureau/District \_\_\_\_\_  
Auditors \_\_\_\_\_

Date \_\_\_\_\_

**EMS Audit Checklist**

<b>EIP-2. Environmental Aspects and Impacts</b>			
<b>Requirements</b>	<b>Conformance</b>		
	<b>Y</b>	<b>N</b>	<b>Comment</b>
1. Has a procedure been established, implemented and maintained to identify the environmental aspects of activities?			
2. Have real and potential impacts related to environmental aspects been considered in establishing and implementing the EMS?			
3. Are all environmental aspects and impacts considered in sufficient detail?			
4. Have the following operational aspects of activities been considered? <ul style="list-style-type: none"> <li>• Normal operating conditions</li> <li>• Abnormal operating conditions (e.g. start up and shut down conditions, maintenance, incidents)</li> <li>• Development of new or modified processes, products or services</li> <li>• Actual and potential emergency conditions and accidents</li> </ul>			
5. Have operations and activities having a potential for impacts stemming from equipment malfunction, operator error and/or environmental discharges or emissions been identified and evaluated?			
6. Have significant aspects and associated impacts been identified?			
7. Have aspects having legal and/or regulatory reporting, monitoring or operational requirements been identified as "significant" aspects?			

**NHDOT Division of Operations  
EIP-14-Form 14a**

Bureau/District \_\_\_\_\_

**EMS Audit Checklist**

Date \_\_\_\_\_

Auditors \_\_\_\_\_

<b>EIP-2. Environmental Aspects and Impacts</b>			<b>Conformance</b>		
			<b>Y</b>	<b>N</b>	<b>Comment</b>
<b>Requirements</b>					
8.	Have indirect aspects such as suppliers, contractors and transportation been considered, or have they been determined to be not applicable based on the EMS scope ("fenceline")?				
9.	Have environmental aspects been identified and evaluated for all planned or new developments, or for new or modified activities, products and services?				
10.	Are the significance evaluation criteria reasonable and adequate?				
11.	Are all significant environmental aspects and impacts adequately controlled by objectives, targets, and programs; or by monitoring and operational controls?				



**NHDOT Division of Operations  
EIP-14-Form 14a**

Bureau/District \_\_\_\_\_  
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**EMS Audit Checklist**

<b>EIP-3. Legal and Other Requirements</b>			
<b>Requirements</b>	<b>Conformance</b>		
	<b>Y</b>	<b>N</b>	<b>Comment</b>
1. Has a procedure been established, implemented and maintained to identify applicable regulatory, legal and other requirements?			
2. Does the procedure include a process to proactively identify and obtain information about changes and proposed changes in environmental requirements; and to incorporate those changes into the EMS as appropriate?			
3. Are current copies of all applicable regulatory and other requirements (permits, licenses, authorizations) accessible to personnel as necessary?			
4. Does the procedure or other policy describe a process to ensure sustained interaction with regulatory agencies, within the organization, and with contractors regarding environmental requirements and regulatory compliance?			
5. Have other commitments and agreements been integrated in the procedure? <ul style="list-style-type: none"> <li>• Business related agreements</li> <li>• Agreements with public authorities</li> <li>• Guideline other than legal requirements (e.g. policy, industry codes and practices)</li> </ul>			
6. Are regulatory requirements included in Standard Operating Procedures (SOPs) and written environmental plans?			

**NHDOT Division of Operations  
EIP-14-Form 14a**

Bureau/District \_\_\_\_\_

**EMS Audit Checklist**

Date \_\_\_\_\_

Auditors \_\_\_\_\_

<b>EIP-4 and EIP-5. Objectives, Targets and Programs</b>			
<b>Requirements</b>	<b>Conformance</b>		
	<b>Y</b>	<b>N</b>	<b>Comment</b>
1. Have environmental objectives and targets been established at each relevant function and level in the organization?			
2. Are objectives and targets documented?			
3. Are objectives and targets specific, measurable, concrete, understandable, and are timeframes for meeting them set?			
4. Do the objectives and targets take into consideration of the following? <ul style="list-style-type: none"> <li>• Compliance with relevant legal and other requirements</li> <li>• Potential for impacts due to equipment malfunction, operator error and environmental discharges or emissions</li> <li>• Significant environmental aspects and impacts</li> <li>• The criteria for selection of adequate technology, financial operation and business requirements</li> <li>• The views of interested parties</li> </ul>			
5. Are the objectives and targets consistent with the environmental policy commitments?			
6. Are evaluation criteria or meeting records available to determine what significant environmental aspects become objectives and targets?			
7. Have Environmental Action Plans (EAPs) or programs for the achievement of environmental objectives and targets been established and implemented?			

**NHDOT Division of Operations  
EIP-14-Form 14a**

Bureau/District \_\_\_\_\_  
Auditors \_\_\_\_\_

EMS Audit Checklist  
Date \_\_\_\_\_

<b>EIP-4 and EIP-5. Objectives, Targets and Programs</b>				
	<b>Requirements</b>	<b>Conformance</b>		<b>Comment</b>
		<b>Y</b>	<b>N</b>	
8.	Have responsibilities been assigned for EAPs at each appropriate function and level?			
9.	Do the EAPs include the following elements? <ul style="list-style-type: none"> <li>• Designation of responsibility for achieving objectives and targets at each relevant function and level of the organization.</li> <li>• The means and time-frame by which the plans are to be achieved.</li> <li>• A method to revise EAPs in response to new developments, or new or modified activities, products or services.</li> </ul>			
10.	Has a method been established to periodically measure and report progress toward achievement of the objectives and targets, and the EAPs?			
11.	Is documentation available to demonstrate progress toward achievement of the objectives and targets?			

**NHDOT Division of Operations  
EIP-14-Form 14a**

Bureau/District \_\_\_\_\_

**EMS Audit Checklist**

Date \_\_\_\_\_

Auditors \_\_\_\_\_

<b>EIP-6. Organization, Personnel, Accountability and Responsibility</b>			
<b>Requirements</b>	<b>Conformance</b>		
	<b>Y</b>	<b>N</b>	<b>Comment</b>
1. Is an environmental organizational chart available and current?			
2. Have responsibilities and authorities for environmental management and regulatory compliance (within the organization and as applicable to suppliers, contractors) been defined and documented?			
3. Are the potential consequences for departure from specified operating procedures described (e.g., disciplinary action, liability for civil/administrative penalties resulting from regulatory non-compliance)?			
4. Has an EMS Coordinator been assigned?			
5. Has an EMS Team been designated?			
6. Have roles, responsibilities, and authorities for the EMS Coordinator and EMS Team been defined?			
7. Are adequate resources (e.g. personnel, technology, finance) for implementation and control of the EMS and regulatory compliance provided by management?			
8. Is documentation available to demonstrate the EMS Team is active (e.g., meeting notes, progress reports)?			

**NHDOT Division of Operations  
EIP-14-Form 14a**

Bureau/District \_\_\_\_\_  
Auditors \_\_\_\_\_

**EMS Audit Checklist**

Date \_\_\_\_\_

<b>EIP-7. Competence, Training, and Awareness</b>			
<b>Requirements</b>	<b>Conformance</b>		
	<b>Y</b>	<b>N</b>	<b>Comment</b>
1. Have all specific environmental regulatory and EMS awareness training needs for all employees been identified?			
2. Has a method been developed and implemented to assure that all required training is scheduled and given (including refresher training) for all required employees?			
3. Has a method been developed and implemented to assure that all personnel (including temporary employees and contractors) performing environmental tasks (including those related to regulatory compliance and emergency response) have the required knowledge (e.g. education, training, experience)?			
4. Are all personnel trained on the consequences of deviating from Standard Operating Procedures, Work Instructions, regulatory requirements, and EMS procedures?			
5. Has a procedure been established, implemented and maintained to assure that all personnel, suppliers and contractors are aware of the Environmental Policy, actual and potential impacts related to their work, and their responsibilities related to the EMS?			
6. Do contractors working on site have the requisite knowledge, skills, and training to perform their work in an environmentally responsible manner?			
7. Are training records, certificates and licenses available to demonstrate training and competence?			

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<b>EIP-8. Internal and External Communication and Reporting</b>			
<b>Requirements</b>	<b>Conformance</b>		
	<b>Y</b>	<b>N</b>	<b>Comment</b>
1. Has a procedure been established, implemented and maintained for communication of environmental issues, regulatory requirements and EMS matters within and between various levels of the organization?			
2. Are roles and responsibilities for managing internal and external communication clearly delineated?			
3. Does the communication process ensure that suppliers and contractors are aware of the relevant requirements of the organization's EMS and regulatory requirements?			
4. Does the communication process provide a method to receive and address environmental concerns of employees, suppliers and contractors?			
5. Has a procedure been established, implemented and maintained for receiving, documenting and responding to communications from external interested parties?			
6. Is documentation available to demonstrate internal and external communication activities?			
7. Does the communication process address annual reporting requirements under the AOC?			

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<b>EIP-9. Documentation, Document Control and Records Management</b>			
<b>Requirements</b>	<b>Conformance</b>		
	<b>Y</b>	<b>N</b>	<b>Comment</b>
1. Have the core elements of the EMS and their interaction been described (e.g., in the EMS manual)?			
2. Does documentation of core EMS elements provide reference to related EMS documents and their location?			
3. Are the core EMS elements documented? <ul style="list-style-type: none"> <li>• Policy</li> <li>• Scope of the EMS</li> <li>• Regulatory requirements</li> <li>• Objectives, targets and programs</li> <li>• Site-specific procedures, practices and operational controls</li> <li>• Organizational roles, responsibilities and accountability</li> <li>• Training</li> <li>• Communication</li> <li>• Monitoring and measurement</li> <li>• EMS and compliance evaluation</li> <li>• Management review</li> </ul>			
4. Has a procedure been established, implemented and maintained for the creation, modification and appropriate approval of controlled documents?			
5. Is all controlled documentation identified by revision level or date?			

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<b>EIP-9. Documentation, Document Control and Records Management</b>			
<b>Requirements</b>	<b>Conformance</b>		
	<b>Y</b>	<b>N</b>	<b>Comment</b>
6. Has a procedure been established, implemented and maintained to ensure periodic review and appropriate revision of all controlled documents?			
7. Is a master list of all controlled documents available?			
8. Are current versions of all required documents available at all essential locations?			
9. Are obsolete documents promptly removed, or otherwise assured against unintended use?			
10. Has a procedure been established, implemented and maintained to identify and manage EMS and regulatory compliance records?			
11. Have responsibilities for records management been established?			
12. Have records retention times been specified?			
13. Are environmental records legible, readily retrievable, and protected against damage?			
14. Is a master list of all environmental records available?			
15. Have the data management systems used for internal tracking of environmental data (e.g., waste disposal, waste determination) been specified and included in the records list?			



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EIP-10. Monitoring and measurement			
Requirements	Conformance		
	Y	N	Comment
1. Has a procedure been established, implemented and maintained to identify and monitor the key characteristics of operations having significant aspects and impacts?			
2. Does the procedure address monitoring operations for potential equipment malfunctions, operator error and/or environmental discharges or emissions that could lead to adverse environmental impacts or regulatory noncompliance?			
3. Have environmental performance indicators related to objectives and targets been established?			
4. Are records available to track performance and conformity with the EMS and with objectives and targets?			
5. Is all monitoring equipment related to significant aspects and impacts appropriately maintained and calibrated?			
6. Are calibration and maintenance records available and included with environmental records?			
7. Have methods been developed and implemented to monitor and measure applicable operations for purposes of preventing and controlling pollutant releases, ensuring environmental protection, and maintaining regulatory compliance?			

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<b>EIP-11. Operational Controls</b>			
<b>Requirements</b>	<b>Conformance</b>		
	<b>Y</b>	<b>N</b>	<b>Comment</b>
1. Has a procedure been established, implemented and maintained to identify and control activities associated with significant environmental aspects, environmental policy, objectives and targets, and regulatory requirements?			
2. Are these activities planned and carried out under specified conditions?			
3. Have the following been considered? <ul style="list-style-type: none"> <li>• Activities where the absence of controls could cause deviation from environmental policy, objectives and targets, or regulatory compliance</li> <li>• Activities having specific operating criteria or operating limits</li> <li>• Control processes for new or modified products and services</li> <li>• Emergency situations and start up/shut down procedures for equipment and systems</li> <li>• Activities that are planned, new or changed (e.g., buildings, operations, maintenance activities)</li> </ul>			
4. Have Standard Operating Procedures, Work Instructions, and physical controls been evaluated for their effectiveness to prevent adverse environmental impacts, and to achieve objectives and targets?			
5. Have Standard Operating Procedures and Work Instructions been effectively communicated to all employees who would use them?			
6. Is a master list of implemented Standard Operating Procedures, Work Instructions and other controls available?			

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<b>EIP-12. Emergency Preparedness and Response</b>			
<b>Requirements</b>	<b>Conformance</b>		
	<b>Y</b>	<b>N</b>	<b>Comment</b>
1. Has a procedure been established, implemented and maintained to identify the potential for, and responses to, accidents and emergencies?			
2. Have procedures been established to prevent and mitigate environmental impacts of accidents and emergencies?			
3. Are emergency plans and procedures defined to ensure that environmental impacts of accidents and emergency situations are mitigated?			
4. Are responsibilities defined to review and revise, where necessary, the emergency preparedness and response plans and procedures?			
5. Are emergency procedures tested or are emergency drills conducted?			
6. Are personnel trained on their roles and responsibilities in emergency situations?			
7. Is a master list of emergency plans and procedures available?			

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<b>EIP-13. Nonconformity, Preventive and Corrective Action</b>			
<b>Requirements</b>	<b>Conformance</b>		
	<b>Y</b>	<b>N</b>	<b>Comment</b>
1. Has a procedure been established, implemented and maintained to define the responsibility for handling, investigating and controlling, and mitigating nonconformity with the EMS and with regulatory compliance?			
2. Are the root causes of incidents investigated and addressed?			
3. Is the status of corrective and preventive actions tracked?			
4. Are corrective and preventive actions timely, appropriate and effective?			
5. Are facility or organizational procedures changed or updated as a result of corrective and preventive action? Are those changes communicated to all affected parties (employees, contractors, regulatory agencies)			
6. Is documentation available to demonstrate that corrective and preventive actions were implemented, tracked and verified?			

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Requirements	Conformance		
	Y	N	Comment
<b>EIP-14. EMS Evaluation</b>			
1. Has a procedure been established, implemented and maintained to conduct internal EMS audits?			
2. Are EMS audit frequencies and scope based on the EMS scope and the results of prior audits?			
3. Do audit procedures cover how results are reported and provided to management?			
4. Do audit procedures adequately define audit scope, frequency, methods and responsibilities?			
5. Has the audit system been fully and effectively implemented, including corrective and preventive action?			
6. Are the auditors conducting the audits competent and in a position to conduct the audits objectively and impartially?			
7. Are needed changes to the EMS made and documented as a result of the audits?			

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<b>EIP-15. Compliance Evaluation</b>				
	<b>Requirements</b>	<b>Conformance</b>		
		<b>Y</b>	<b>N</b>	<b>Comment</b>
1.	Has a procedure been established, implemented, and maintained to periodically evaluate compliance with relevant environmental regulatory requirements?			
2.	Has monitoring and measurement data been reviewed to evaluate compliance with relevant environmental regulatory requirements?			
8.	Are compliance audit frequencies and scope based on the potential for noncompliance and the results of prior audits?			
9.	Do audit procedures adequately define audit scope, frequency, methods and responsibilities?			
10.	Do audit procedures cover how results are reported and provided to management?			
11.	Do audit procedures cover how potential compliance violations are addressed and corrected?			
12.	Has the audit system been fully and effectively implemented?			
13.	Are the auditors conducting the audits competent and in a position to conduct the audits objectively and impartially?			

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16. Management Review			
Requirements	Conformance		
	Y	N	Comment
1. Do periodic management reviews take place to ensure the continuing suitability and effectiveness of the EMS?			
2. Does the management review result in changes, as appropriate, to the policy, objectives and targets or to other EMS elements?			
3. Are management reviews based on the following documents or information? <ul style="list-style-type: none"> <li>• Audit reports</li> <li>• Evaluations of compliance with legal requirements and other requirements</li> <li>• Achievement of objectives and targets</li> <li>• Communications and complaints from relevant interested parties</li> <li>• Overall environmental performance</li> <li>• Status of corrective and preventive actions</li> <li>• Follow-up actions from previous management reviews</li> <li>• Changing circumstances, including developments in legal and other requirements related to its environmental aspects, and</li> <li>• Recommendations for improvement</li> </ul>			
4. Are records of management reviews retained and available?			

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Findings Tracking Log

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EMS Evaluation \_\_\_\_\_ Compliance Audit \_\_\_\_\_ Scope of Audit: \_\_\_\_\_

<i>Finding No.</i>	<i>Description</i>	<i>Priority</i>	<i>Responsible Party</i>	<i>Due Date</i>	<i>Status/Notes</i>

Add additional pages as necessary

Date on which all Findings were closed: \_\_\_\_\_