Internal EMS Auditor Training
February 20, 2020

Environmental Management Systems
Definition

Audit means a planned, objective and documented Assessment, either done internally by the program participant or its designee or externally by an independent third party, to determine the performance of a planning or service area’s system in relation to the designation requirements.
Requirements from IAC

- **Internal Audit.** A copy of the result of the latest internal Audit that includes the date(s) it was conducted and the identity of the Auditor(s) shall be provided as part of the report. An internal Audit shall be conducted each state fiscal year.

- **External Audit.** An external Audit shall occur each state fiscal year. The date of the latest external Audit or the date the Audit will take place, along with the identity and pertinent qualifications of the independent, third party Auditor(s) shall be provided. The results of the external Audit shall be incorporated into the report. The department has a prequalification process for external Auditors.
EMS AUDIT IS THE WAY TO PROACTIVELY IDENTIFY WEAKNESS (AND STRENGTHS) IN THE EMS AND THE ASSOCIATED ROOT CAUSE
EMS Elements Essentials for Audit

“The organization must have documented procedures for assessing the function of each component and its effectiveness of and conformance with the EMS plan. Audit is the process of drawing conclusions from the performance measurements.”
Audit

- Generally, Two Types of Audits
  - Compliance Audits
    - Determine Compliance with Local, State and Federal Laws and Regulations
      - Primarily a Paperwork Review and Site Observations
    - Correct Findings
  - EMS Audits
    - Determine Conformance with the EMS
      - Interviews, Paperwork Review, and Site Observations
    - Findings are Evaluated for Their “Root Cause” and Corrective Action is Then Implemented
If You Are Used to Compliance Audits, What’s Different About an EMS Audit?

- An EMS Audit is a Conversation with Staff Members About the EMS and Their Views of the Environment
- An EMS Audit Seeks to Find Weaknesses and Strengths in the System
- An EMS Audit is Not “Find and Fix”...an EMS Audit Seeks to Identify the Root Cause

If You Develop an Effective EMS Audit Process It Will Drive Continual Improvement!
EMS Audit Process

1. EMR Identifies and Trains EMS Auditor
2. EMR/Lead Auditor Determine EMS Audit Scope and Frequency
3. EMR/Lead Auditor Develop EMS Audit Plan

3 Months Prior
EMS Audit Process

1. **EMS Auditor(s) Develop EMS Audit Checklist**
2. **EMS Auditor(s) Schedule and Conduct EMS Audit**
3. **Lead Auditor Produces Draft EMS Audit Report**

- **2 Weeks Prior**: DNR has a starter checklist available
- **1-2 Days**: 1 Week After
EMS Audit Process

2 Weeks After

EMR/EMS Core Team Reviews and Approves Draft Report and Documents Root Cause(s)

Lead EMS Auditor Finalizes Report

EMR/EMS Core Team Assigns Findings to Staff for Corrective Action with Due Dates

3 Weeks After
EMS Audit Process

- Staff Implement Corrective Action
- EMR Follows Up and Closes Out Findings
- ~3 Months After
Identify and Select Auditors

- The Selection of Auditors Must Ensure that Objectivity and Impartiality of the Audit Remains Intact!
  - Cannot Audit Your Own Work
    - No EMRs or EMS Core Team Members
- Traits of a Good Auditor
  - No Fear
  - Conversationalist
  - Some Environmental Knowledge or Concern
  - Tactful
Identify and Select Auditor(s)

- Selecting an Auditor Can be Problematic
  - Small Organizations with Limited Staff
  - Everyone with Environmental Knowledge or Knowledge of the EMS is on the EMS Core Team
  - Availability of Time for the Auditor to Train and Conduct the Audit

Remember, EMS is About Continual Improvement…Your EMS Audit Will Also Continually Improve
Identify and Select Auditor(s) - Suggestions

- Think Outside the Box
  - Is There Someone from Outside Your Organization That May be Willing to Conduct the Audit (Other EMS participants?)
- Consider Making it Prestigious to Be Selected as an Auditor
- Use a New Staff Person
- Consider Staff Outside the Fenceline
Developing the EMS Audit Plan
EMS Audit Plan

- The EMS Audit Plan Serves as a Planning Tool to Facilitate the Audit Process
- The EMS Audit Plan Should
  - Document the Schedule
    - 9:00 – 10:00 – Interview the EMR
    - 10:00 – 11:00 – Review Records
  - Identify the Interviews, Records, and Documents that Are Needed to Verify the EMS is in Place and Working Effectively
    - “Evidence”
- As Part of Audit Planning, Finalize Checklists
# Audit Checklist

<table>
<thead>
<tr>
<th>Facility:</th>
<th>Procedure</th>
<th>Other Annual Report document</th>
<th>Lead Auditor:</th>
<th>Audit Results</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Iowa EMS Element Description and Number</th>
<th>Interview Notes</th>
<th>Met</th>
<th>Partly Met</th>
<th>Not Met</th>
<th>Opportunity</th>
<th>Commendable</th>
</tr>
</thead>
</table>

1. Environmental Policy Statement

- Has management (or other relevant party) adopted an Environmental Policy Statement 567-111.6(2). Is Board approval required?

- Does the policy demonstrate the following:
  - (1) Commitment to environmental performance? IAC 567-111 Definitions
  - (2) Framework for action? IAC 567-111 Definitions
  - (3) Framework for setting objectives and targets? IAC 567-111 Definitions
  - (4) Commitment to continuous improvement? IAC 567-111 Definitions

- Is it visible and communicated to staff, Others? Is it posted? Internet? Other? IAC 567-111.6(5)c(1,2)

This form is available from DNR - see the final page of this presentation.
# Audit Plan Template

## Internal EMS Audit Plan

<table>
<thead>
<tr>
<th>Facility/ Department/Area</th>
<th>EMS Element</th>
<th>Auditor(s)</th>
<th>Auditee(s)</th>
<th>Date and Time</th>
<th>Special Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Audit Plan Example

## Internal EMS Audit Plan

**Date:** January 3, 2020  
**Preparer:** Tom Dietrich

**Facility:** Great Iowa Solid Waste Agency

<table>
<thead>
<tr>
<th>Facility/ Department/Area</th>
<th>EMS Element</th>
<th>Auditor(s)</th>
<th>Auditee(s)</th>
<th>Date and Time</th>
<th>Special Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS general</td>
<td>1 to 10</td>
<td>Tom Dietrich</td>
<td>EMR</td>
<td>8:30-10:00</td>
<td>Send documents 2 weeks prior to audit</td>
</tr>
<tr>
<td>Landfill</td>
<td>1 to 7</td>
<td>Tom Dietrich</td>
<td>Landfill Supervisor</td>
<td>10:00-11:00</td>
<td>Interview to be conducted during field visit</td>
</tr>
<tr>
<td>RCC</td>
<td>4 to 7</td>
<td>Tom Dietrich</td>
<td>HHM Supervisor</td>
<td>11:00-11:30</td>
<td>Interview to be conducted during field visit</td>
</tr>
<tr>
<td>Recycling Center</td>
<td>4 to 7</td>
<td>Tom Dietrich</td>
<td>Recycling Coordinator</td>
<td>11:30-12:00</td>
<td>Flexible timing to best fit Director's schedule between 8:30-10:00</td>
</tr>
<tr>
<td>Top Management</td>
<td>1, 9, 10</td>
<td>Tom Dietrich</td>
<td>Director</td>
<td>15 minutes</td>
<td></td>
</tr>
</tbody>
</table>
EMS Audit Plan Best Practices

- The EMS Auditor Should Work with the EMR to Determine the Schedule and Necessary Interviews
- Remember to Schedule Senior Management Interviews in Advance
- Allow Flexibility in the Schedule – You Never Know Where the Audit Will Take You
- The Flow of the Audit Plan is Up to the Auditor and EMR But Most Auditors:
  - Start with an Interview with the EMR and Document Review
  - The Site Observations and Interviews Confirm the Statements by the EMR and Commitments in the Documents
Conducting the EMS Audit
Overall EMS Audit Schedule

- Opening Meeting
  - Outline Schedule
  - Discuss Process and Expected Results
- Conduct the Audit According to the Plan
  - Interviews
  - Document/Record Review
  - Field Observations
- Closing Meeting
  - Disclose the Preliminary Findings of the Audit
- Audit Report

The Goal of the Audit is to Collect Objective Evidence to Demonstrate the EMS is Working
Assessing the 10 EMS Elements

- Each of the 10 EMS Elements should be audited for conformance each year.
  - Timing and schedule are up to you.

- Audits typically include:
  - Interviews with staff
  - Review of documents
  - Review of records
  - Evaluation of environmental improvement

Note: See Handout with 10 EMS Elements
Environmental Policy Statement

- Commitment to EMS and continuous improvement?
- Framework for action?
- Are staff aware of the policy statement?

Employees do not need to recite the policy. Rather, they should understand the organization’s environmental commitments and how it affects their job.
Environmental Aspects and Impacts

- Is there a Procedure and has the organization followed it?
- Does the Environmental Aspects and Impacts List capture relevant activities within the fenceline?
- Have the six plan components (HHM, Organics, GHG, Environmental Ed, Recycling, Water Quality) been considered significant?
- Are staff aware of how their job responsibilities may affect the environment?

**EMR needs to understand the process of identifying and selecting environmental aspects and impacts.**
Legal and Other Requirements

- Does the Procedure outline how Legal and Other Requirements are identified and tracked?
- How is the List updated?
- Check for OSHA (health and safety) requirements on the List.
- Speak with the compliance manager on how they manage requirements, keep records, and train staff.
- Are staff aware of environmental and safety requirements affecting their job?

Remember to audit conformance with EMS, not legal requirements.
Objectives and Targets

- How were the objectives and targets developed and how are they reviewed and updated?
- Are there objectives for all six plan components?
- Have objectives been set for significant aspects?
- Are targets quantifiable and include due dates?
- Are environmental impacts being reduced?

• Speak with at least one person managing an objective and target. Discuss process of carrying out this task.
• Objectives and targets need to be specific, measurable, achievable, realistic, and time bound.
Action Plan

- Review each action plan for each objective and target and determine if they can achieve the result desired.
- Are the action plans realistic?
- Have changes been made due to resource availability?
- If changes have been made, is the organization still on track to meet the objective?
- Are due dates being met?
- Are assigned staff aware and keeping track of progress?
- Procedure is strongly recommended.

An action plan should be developed into a step-by-step-process that rolls up to achieve the objective and target.
Identify Roles and Responsibilities

- Review the Roles and Responsibilities Matrix and ask about development.
- How is the matrix updated and communicated to staff?
- Does the matrix accurately reflect any changes in roles or responsibilities?
- Are staff aware of their EMS related roles and responsibilities?

Roles and responsibilities can be communicated to staff through a variety of ways (job training, posters, email, handouts).
Communication/Training/Awareness

- Review the Procedure. Does it outline internal, external communication and training?
- What types of communication are in place?
- Have requests, comments, and questions been responded to and addressed?
- Have employees had the required training?
- Are employees competent and aware of the EMS?
- Is training working for the organization?

• Tracking training can be difficult.
• Lack of awareness is an indicator of an ineffective training program.
Monitoring and Measurement

- How were metrics identified?
- Are metrics being tracked and recorded for objectives, targets, and action plans?
- Are there any gaps in the metrics?
- Do metrics align with targets’ environmental performance?
- Is monitoring equipment functioning properly?

The “gold star” of monitoring and measuring is when charts, graphs, tables, etc. are developed and show progress is being measured and tracked.
Audit

- Review the Audit process and verify steps are being followed in the Audit. It’s fine to take a “recorder” along to write while Auditor asks questions.
- Does the Audit process appear to be in place and functioning?
- Have all Audit reports been reviewed and finalized by the EMR/EMS Core Team?

Ask the EMR about the process and whether they think it is providing value.
Reevaluation and Modification

- Review previous Audit Report and ask about the process to follow up on any findings.
- Have all findings been addressed and completed through a root cause analysis?
- Is corrective action in place and effective?
- Are any findings “open” from previous Audit?
- Procedure is strongly recommended.

• Check to see that the root cause analysis has been conducted, is adequate and corrected.
• Ask EMR about management review.
• Review documentation from the latest management review.
Results of the EMS Audit

Are the EMS Elements Implemented as Designed and Providing Benefit to the Organization?
Conducting the EMS Audit - Best Practices

- Use Your EMS Checklist!
- Follow “Audit Trails”
- Look for Objective Evidence and Record Results
- Be Friendly and Patient
- Avoid Jargon and Adjust Terminology / Approach with Each Interview
- Generally Explain the Process to Staff
- Remember People Can be Nervous
- Communicate to the EMR During the Audit
Remember, the EMS is About Continual Improvement and So is the EMS Audit
Audit Reporting
Audit Reporting

- The Lead Auditor Will Prepare an Audit Report Documenting the Findings of the EMS
  - The results should also be discussed in the closing meeting
  - Each finding should be tied to one EMS element
- The Report Should be Issued as a Draft to the EMR to Allow for Comments
- The EMS Audit Report Should Document
  - The Audit Process
  - Evidence Collected
  - Findings of the EMS Audit
- Recommend Using a Tabular Format
## Example Audit Report

### Internal EMS Audit Results Summary Form

**Date:** January 3, 2020  
**Lead Auditor:** Tom Dietrich  
**Scope/Facility:** Great Iowa Solid Waste Agency

<table>
<thead>
<tr>
<th>Iowa EMS Element Description and Number</th>
<th>Audit Results/Findings</th>
</tr>
</thead>
</table>
| **1 Environmental Policy Statement**   | Policy document provided.  
Procedure posted on website.  
Posters onsite to communicate to staff.  
All staff interviewed were aware. | **Finding:** Commendable |
| **2 Environmental Impacts, including Significance** | Aspects list provided.  
Procedure provided.  
EMR interview confirmed process. | **Finding:** Met Requirements |
| **3 Legal and Other Requirements**     | Legal list provided.  
Procedure provided.  
List was not updated in past year. | **Finding:** Partly Met |
| **4 Objectives and Targets**           | Objectives and targets documents provided.  
One objective appears to have been used for several years without change or improvement. | **Finding:** Opportunity for Improvement |
# New Audit Notes Form

<table>
<thead>
<tr>
<th>Facility:</th>
<th>Auditor:</th>
<th>Audit Notes</th>
<th>Documentation</th>
<th>Follow-Up Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Iowa EMS Element Description and Number</strong></td>
<td>Interview Notes (Interviewee Name and Results of Interview)</td>
<td>(Indicate Files Reviewed and Results) Note: Some Common Docs Listed for Convenience. Add &quot;Other&quot; as Needed.</td>
<td>(Task, Responsibility, Due Date)</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>External Audit Findings/ Corrective Action Work Orders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Environmental Policy Statement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>Iowa EMS Element Number and Description</td>
<td>Evidence</td>
<td>Finding(s)</td>
<td>Iowa EMS Reference</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------</td>
<td>----------</td>
<td>------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>8</td>
<td>Monitoring and Measurement</td>
<td>Reviewed Provided Documentation and Procedure. Interviewed EMR.</td>
<td>Opportunity for Improvement</td>
<td>Does the organization have a documented process (procedure) for monitoring key activities and, at a minimum, measuring performance related to each Objective and Target? IAC 567-111.6(5)d.</td>
</tr>
</tbody>
</table>

Well defined, quantitative metrics that elicit progress are needed to effectively measure continuous improvement. Metrics must align directly with identified Objectives and Targets and performance indicators must be identified prior to program/project initiation. In reviewing Objectives and Targets during the Audit, this was not always the case.

An example includes the Objectives:

*Protect surface water and storm water, as well as surrounding waterways and tributaries from contamination due to loose litter.*

and

*Reduce the amount of HHM’s coming to the landfill as part of the regular waste stream.*

While the audit team realizes environmental benefits are being experienced through these projects, baselines have not
Reevaluation and Modification

- The Reevaluation of the EMS is conducted to address the findings from the Audit identified in the final report.
  - Identification of Which Element of the EMS Meets, Partially Meets, Failed to Meet, or Exceeded Expectations (Results of the EMS Audit)

- EMR Responsibilities
  - Identify the Root Cause of Each of These Outcomes
  - Implement Corrective Action to Prevent Reoccurrence

NOTE: Information of Root Cause and Corrective Action provided so the Auditor understands how the EMR will use the Audit for continual improvement
“To address this mistake we must use root-cause analysis. I’ll begin by saying it’s not my fault.”
Root Cause Analysis

- The Reevaluation Process Should Not Take a “Find and Fix” Approach

<table>
<thead>
<tr>
<th>Finding</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 Gallon Drum was Missing a Label</td>
<td>Place a Label on the Drum</td>
</tr>
</tbody>
</table>
## Root Cause Analysis

<table>
<thead>
<tr>
<th>Finding</th>
<th>Root Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
</table>
Root Cause Analysis/Corrective Action

- Usually Conducted by the EMR and/or Facility Manager
  - Five Why’s is a Popular Tool for Identification of the Root Cause in an EMS
- Receive Input on the Root Cause from Staff Knowledgeable About the Finding
- Corrective Action Should be Identified Immediately Following the Root Cause
  - Assign Responsibilities and Due Dates
  - Follow Up!
Recording and Tracking
The department developed a CPAR (Corrective/Preventative Action Request/Work Order) Form.

The form is available for use by EMS participants and others to record and track Audit Findings or notable occurrences at a facility any time during the year.

Some participants use software to assist with tracking non-conformances.
This form is available from DNR - see the final page of this presentation for information.

<table>
<thead>
<tr>
<th>ID # __________</th>
</tr>
</thead>
</table>

**Corrective/Preventive Action Request/Work Order**

<table>
<thead>
<tr>
<th>_____ Immediate Action</th>
<th>_____ Hold for Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Refer to:</strong></td>
<td><strong>Other:</strong></td>
</tr>
<tr>
<td><strong>Prepared by:</strong></td>
<td><strong>Date:</strong></td>
</tr>
<tr>
<td><strong>Describe Problem:</strong></td>
<td><strong>Possible Solutions:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**What is the suspected cause?**

**How was it discovered?**

**By whom?**

**Date of Discovery:**

**ACTION TAKEN**

<table>
<thead>
<tr>
<th><strong>What is the root cause?</strong> <em>(more room on back)</em></th>
<th><strong>Date started:</strong></th>
<th><strong>Date completed:</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Type:</strong></th>
<th><strong>Priority:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**How was the problem resolved?**

Attach map, reference points, coordinates, description on location.

**Significant Aspect:**

**Who performed the work?**

**Iowa EMS:**

<table>
<thead>
<tr>
<th>□ EMS Element</th>
<th>□ Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ #</td>
<td>□ GHG</td>
</tr>
<tr>
<td>□</td>
<td>□ HHW</td>
</tr>
<tr>
<td>□</td>
<td>□ Recycling</td>
</tr>
<tr>
<td>□</td>
<td>□ Water Quality</td>
</tr>
<tr>
<td>□</td>
<td>□ Yard Waste</td>
</tr>
<tr>
<td>□</td>
<td>□ Other</td>
</tr>
<tr>
<td></td>
<td>□ Health/Safety</td>
</tr>
</tbody>
</table>

**Future action necessary to prevent recurrence:**

**Benefit of compliance/Consequence of non-compliance:**

**Print Name and Initial:**

**Close Date:**

Return this form to ________
DNR and Gresham Smith have developed an Audit Guide

This Guide is available from DNR - see the final page of this presentation.
Questions?