

US EPA ARCHIVE DOCUMENT

EMS AUDITS

Background and Exhibits

Once your facility has established its EMS, it is crucial to assess whether it is suitable and adequate and to ensure planned arrangements for the EMS are being followed. It is relatively easy to create a system that works well in the absence of change; the more difficult challenge is to have in place a system that meets its commitments when faced with dynamic business conditions. EMS audits are pivotal to maintaining a viable system in the face of accidents, emergencies, changing rules, staff turnover, etc.

For your EMS audit program to be effective, you should:

- Develop audit procedures and protocols;
- Determine an appropriate audit frequency;
- Select and train your auditors; and
- Maintain audit records.

Audit procedures should describe:

- Audit planning;
- Audit scope (areas and activities covered);
- Audit frequency;
- Audit methods;
- Key responsibilities for the audits;
- Reporting mechanisms for the audits; and
- Record keeping for audit results.

Results of your EMS audits should be linked to the corrective and preventive action process, as described in *Module 15*.

While they can be time-consuming, EMS audits are critical to EMS effectiveness. Systematic identification and reporting of EMS deficiencies to management provides a great opportunity to:

- Maintain management focus on the environment;
- Improve the EMS and its performance; and
- Ensure the system's cost-effectiveness.

Getting Started

Determine the Frequency of Your Audits

To determine an appropriate frequency for your EMS audits, consider the following factors:

- The nature of your operations and activities;
- Your significant environmental aspects/impacts that you identified earlier;
- The results of your monitoring processes; and

- The results of previous audits.

As a rule of thumb, all parts of the EMS should be audited at least annually. You can audit the entire EMS at one time or break it down into discrete elements for more frequent audits.

Identify What You Need to Audit

As part of your audits, it is critical that you regularly review your facility's environmental aspects and objectives. Over time, you will probably add to the list of environmental aspects and you may need to re-rank the aspects as your activities change and as new information becomes available. Here are some things to check:

- New process reviews—have any changes introduced new environmental aspects?
- Worksheets from the most recent environmental aspect identification and significance determination—is there new information on chemical effects?
- Communication received from external stakeholders—do any comments suggest a need for you to reevaluate your aspects?
- Environmental objectives and targets—what new ones will your facility set for this time period? Which are now accomplished and can be closed out or maintained?
- Pollution prevention program—has information become available from this effort that would add aspects or objectives?
- Audit program—have your audits revealed areas of your EMS and environmental programs that could be improved? Would this information be useful in your aspect identification process or in redesigning your objectives?

Determine Who Will Perform the Audits

You should select and train EMS auditors. Auditor training should be both initial and ongoing. Commercial EMS auditor training is available, but it might be more cost-effective to coordinate with businesses or other organizations in your area (perhaps through a trade association) to sponsor an auditor training course. Some local community colleges also offer EMS auditor training courses.

Auditors should be trained in auditing techniques and management system concepts. Familiarity with environmental regulations, facility operations, and environmental science can be a big plus, and in some cases may be essential to adequately assess the EMS.

Some auditor training can be obtained on the job. Your facility's first few EMS audits can be considered part of auditor training, but make sure that an experienced auditor leads or takes part in those "training" audits.

Auditors should be independent of the activities being audited. This can be a challenge for small facilities.

If your facility has a quality management system in place, consider using your internal quality auditors as EMS auditors. While some additional training might be needed for EMS auditing, many of the required skills are the same.

Determine How Management Should Use Audit Results

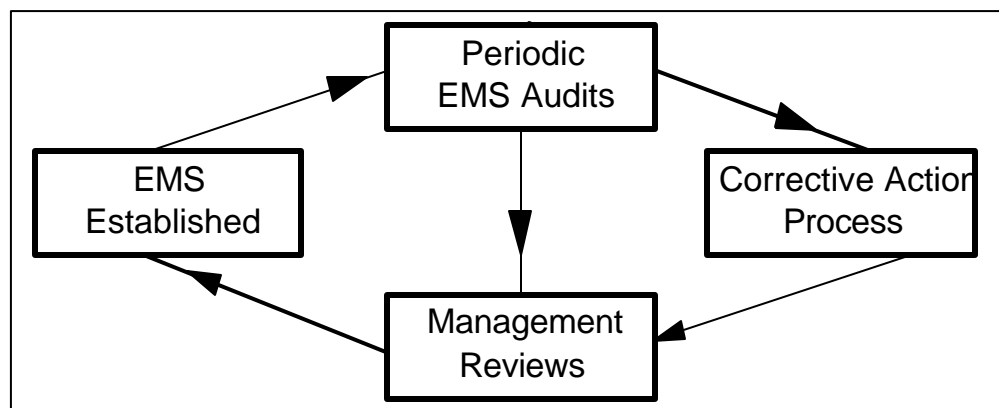
Management can use EMS audit results to identify trends or patterns in EMS deficiencies.

Exhibit 17-1: Linkages Among EMS Audits, Corrective Action, and Management Reviews shows the interconnected relationship between EMS audits, the EMS itself, corrective action, and management reviews. The facility also should ensure that identified system gaps or deficiencies are corrected in a timely fashion and that corrective actions are documented. Management review of the EMS can use these results, as discussed in *Module 18*.

Here are some things to think about to expedite the determination of your facility's audit procedure:

- Focus your EMS audits on objective evidence of conformance. During an audit, auditors should resist the temptation to evaluate, for example, why a procedure was not followed—that step comes later.
- Ensure that auditors review identified deficiencies during the audit with people who work in the relevant area(s). This will help the auditors verify that their audit findings are correct. This also can reinforce employee awareness of EMS requirements.
- Train at least two people as internal auditors, if possible. This will allow your auditors to work as a team. It will also allow audits to take place when one auditor has a scheduling conflict, which is often unavoidable in a smaller facility.
- Communicate the audit scope, criteria, schedule, and other pertinent information to the people in the affected area(s) before you start an audit. This helps to avoid confusion and facilitate the audit process.
- Consider integrating your EMS and regulatory compliance audit processes, but keep in mind that these audit processes have different purposes. While you might want to communicate the results of EMS audits widely within your facility, the results of compliance audits might need to be communicated in a more limited fashion.
- Judge audits on the quality of findings rather than on the number of findings. An EMS audit is a check on how well your system meets your own established EMS requirements. An EMS audit is not an audit of how well employees do their jobs. Auditors should avoid the “gotcha” mentality.

Exhibit 17-1: Linkages Among EMS Audits, Corrective Action, and Management Reviews



Refer to *Exhibit 17-2: Summary Checklist* for a set of steps that can help you develop and maintain your facility's audit processes.

Exhibit 17-3: Procedure for EMS and Regulatory Compliance Audits (EP-017) defines a mechanism for the planning and implementation of internal EMS and regulatory compliance audits that you can use at your facility. It includes two forms: a checklist (EF-017.01) and a schedule (EF-017.02). This procedure provides detailed instructions for checking compliance with regulations and other requirements and complements *Exhibit 14-3: Procedure for Monitoring and Measurement (EP-009)*.

Exhibit 17-2: Summary Checklist

EMS AUDIT

- Step 1: EMS audits are required to assess whether the EMS is suitable and adequate and to ensure planned arrangements for the EMS are being followed. To ensure an effective EMS audit program, you must develop audit procedures and protocols, determine audit frequency, select and train auditors, and maintain audit records. Capture the approach used to plan and implement internal EMS and regulatory compliance audits in a written procedure. *Exhibit 17-3: Procedure for EMS and Regulatory Compliance Audits (EP-017)* provides a template. Include this customized procedure in your EMS manual (see *Exhibit 10-3: EMS Manual*). Results of the EMS audit should be linked to the corrective and preventive action process, as described in *Module 15*.
- Step 2: The frequency of your audits should be defined within your procedure. Frequency is dependent upon the following factors: nature of operations and activities; significant environmental aspects/impacts; results of monitoring processes; and results of previous audits. Use Form EF-017.02, Internal EMS Audit Schedule Form, to develop and record your audit schedule.
- Step 3: Form EF-017.01, Internal EMS Audit Checklist, provides auditors with a sample checklist for use in evaluating whether planned arrangements for the EMS are being properly implemented. Customize a set of checklists to be used at your facility in conjunction with your audit procedure (see *Example 17-1: General Facility Population Checklist for EMS Internal Audits*). The procedure developed in *Module 14* provides detailed instructions for checking compliance with regulations and other requirements.

Exhibit 17-3: Procedure for EMS and Regulatory Compliance Audits (EP-017)**1.0 Purpose/Scope**

This procedure defines the mechanism for the planning and implementation of internal environmental management system and regulatory compliance audits at [Facility's Name].

2.0 Activities Affected

All areas and departments

3.0 Forms Used

- 3.1 Internal EMS Audit Checklist (EF-017.01)
- 3.2 Corrective and Preventive Action Request (CAR) (EF-015.01)
- 3.3 Corrective and Preventive Action Tracking Log (EF-015.02)
- 3.4 Internal EMS Audit Schedule Form (EF-017.02)

4.0 References

- 4.1 Procedure for Corrective and Preventive Action (EP-015)
- 4.2 Procedure for Environmental Management System Management Review (EP-006)
- 4.3 ISO 14001: 1996, Elements 4.5.1 and 4.5.4
- 4.4 Compliance Assurance Program Guidelines

5.0 Definitions

- 5.1 Auditee: individual audited.
- 5.2 Auditor: audit team member performing the audit.
- 5.3 Audit Criteria: policies, practices, procedures, or other requirements against which the auditor compares objective evidence about the subject matter.
- 5.4 Audit Program Leader: individual responsible for maintaining the Environmental Audit Program.
- 5.5 CAR: corrective and preventive action request that identifies observed non-conformances.
- 5.6 Finding: an existing condition supported by objective evidence.
- 5.7 Non-conformance: the non-fulfillment of specified system requirements.
- 5.8 Objective Evidence: qualitative or quantitative information, records, or statements of fact pertaining to the existence and implementation of an EMS element that is based on measurement or test and which can be verified.

6.0 Exclusions

None

7.0 Procedure

- 7.1 Conducting the Internal EMS Audit

- 7.1.1 The Quality Manager, or designee, shall plan, schedule, and implement internal environmental management system audits. The audit schedule, developed on the Internal EMS Audit Schedule Form (EF-017.02), will be used to identify the frequency and location of internal environmental management system audits and will be revised as necessary. Revisions to the audit schedule may be based on the results of prior audits.
- 7.1.2 Audit frequency will be established on a priority basis, taking into account previous audit results and the relative importance of the area or department, and will not be less than once per year for each location. Each area or department will be audited at least once every three years on all system elements.
- 7.1.3 For each area or department within the facility, an audit team will be formed whose membership has no responsibility within the area or department to be audited. This independence will be documented by indicating on the audit report or other audit record the organization to which the auditors belong.
- 7.1.4 Competent audit teams shall perform internal environmental audits.
- 7.1.4.1 At least one member of the team shall be competent in the environmental auditing process through either training and/or experience.
- 7.1.4.2 All members of the audit team shall have an awareness and understanding of the **[Facility's Name]** environmental management system by virtue of formal and informal training.
- 7.1.5 Audit scope and criteria will be established for each area or department prior to each audit. Audit criteria may be documented by the audit team on Internal EMS Audit Checklist (EF-017.01) and the checklist used during the audits.
- 7.1.6 During the audit, the audit team will record audit information, such as: items checked; individuals interviewed; any concerns identified; and any corrective or preventive actions completed during the audit. The audit team shall promptly notify the Environmental Management Representative (EMR), or designee, of any possible regulatory non-compliance. Upon verification of non-compliance, the EMR shall notify facility management.
- 7.1.7 Upon completion of the internal audit, the audit team will review their findings with the auditee and responsible and accountable area or department representative. The team will then initiate a CAR for each finding of non-conformance (Note: a non-compliance is a non-conformance) using the Corrective Action Request form.
- 7.1.8 The Quality Manager or designee will track the status of all outstanding CAR's using the Corrective and Preventive Action Tracking Log (EF-015.02).

- 7.1.9 The responsible and accountable area or department representative will identify the root cause of the non-conformance (where applicable), corrective and preventive actions to be undertaken, and the dates by which these actions will be completed. This information will be documented on the original CAR and the CAR sent to the applicable area or department manager. A copy of the CAR will also be provided to the Quality Manager, or designee, within the time frame established during the audit review meeting.
- 7.1.10 Upon completion of the corrective and preventive actions, the area or department manager will acknowledge completion of these actions by signing the original CAR and returning it to the Quality Manager or designee.
- 7.1.11 Corrective and preventive actions will be verified during the next internal audit or the area or department manager may contact the Quality Manager to schedule verification of actions prior to the next audit.
- 7.1.12 When full conformance is determined or corrective and preventive actions accepted, the audit team leader will sign the original CAR and return it to the Quality Manager, or designee, for closure and filing.
- 7.1.13 At least annually, the EMR, or designee, will summarize system audit results with facility management as specified in the Procedure for Environmental Management System Management Review (EP-006).
- 7.2 Conducting the Compliance Assessment Audit
- 7.2.1 The EMR, or designee, is responsible for planning, scheduling, and implementing internal environmental regulatory compliance assessment audits, including the identification of required resources.
- 7.2.2 The EMR, or designee, develops and maintains the environmental compliance assurance program and issues program support documents, based on facility environmental compliance assurance guidelines, where available.
- 7.2.3 During a compliance assessment audit, assessment team members will record information, such as: items checked; individuals interviewed; and any possible regulatory non-compliance issues. The assessment team shall promptly notify the EMR, or designee, of any possible regulatory non-compliance. Upon verification of non-compliance, the EMR shall notify facility management.
- 7.2.4 The assessment team reviews possible regulatory non-compliance issues with the responsible and accountable area or department representative. The team also prepares a CAR identifying the issues, corrective and preventive actions required, and the individuals responsible for completing the actions. The EMR, or designee, and area or department manager will concur with the CAR before its issuance.
- 7.2.5 Upon completion of the corrective and preventive actions, the area or department manager will acknowledge completion of these actions by signing the original CAR and returning it to the EMR, or designee.

7.2.6 Corrective and preventive actions will be verified in a timely manner by a member of the assessment team. When full compliance is determined or corrective and preventive actions accepted, the assessment team member will sign the original CAR and return it to the EMR or designee for closure and filing.

7.2.7 Each calendar quarter, the EMR or designee will present a summary of open CAR's that are based on regulatory non-compliance to facility management for review.

8.0 Frequency

At least annually

9.0 Records

Records shall be retained consistent with the Procedure for Environmental Records (EP-005).

Record of Revisions

| Revision Date | Description | Sections Affected |
|---------------|-------------|-------------------|
| | | |
| | | |
| | | |
| | | |

Internal EMS Audit Checklist (EF-017.01)

Date:

Area/Department:

| Auditee: | Audit Date: | Audit Criteria: |
|---------------------|--------------------|------------------------------|
| Requirements | Questions | Findings/Observations |
| | | |

Audit Team Leader Signature: _____

Date: _____

Examples

Example 17-1: General Facility Population Checklist for EMS Internal Audits, Example 17-2: Top Management Checklist for EMS Internal Audits, and Example 17-3: Questionnaire for General Facility Population in Spanish may be useful in developing questions for your internal audit process.

Example 17-1: General Facility Population Checklist for EMS Internal Audits

Environmental Policy

| Questions | Findings/Observations |
|--|-----------------------|
| (Look for documentation of planning/evidence of implementation) | |
| 1. Do you know the facility's Environmental Policy? | |
| 2. What are the keywords of the Policy? | |
| 3. How does the Policy relate to your job? | |
| 4. What is your understanding of the facility's EMS and your role? | |
| ADDITIONAL QUESTIONS: | |
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| | |

Environmental Aspects

| Questions | Findings/Observations |
|--|-----------------------|
| (Look for documentation of planning/evidence of implementation) | |
| 1. Are you aware of the aspects and the significant environmental aspect in your department? | |
| 2. What are they? | |
| 3. Where can they be found? | |
| ADDITIONAL QUESTIONS: | |
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Example 17-1: General Facility Population Checklist for EMS Internal Audits (continued)

Objectives and Targets

| Questions | Findings/Observations |
|---|------------------------------|
| (Look for documentation of planning/evidence of implementation) | |
| 1. Do you know what the objectives and targets for the significant environmental aspects are? | |
| 2. Where can these be found? | |
| 3. What is the status or progress on the objectives with which your department is involved? | |
| ADDITIONAL QUESTIONS: | |
| | |
| | |

Training, Awareness, and Competence

| Questions | Findings/Observations |
|---|------------------------------|
| (Look for documentation of planning/evidence of implementation) | |
| 1. Have you received awareness training on the facility's environmental management system and the significant environmental aspects in your department? | |
| 2. Have you received training on your role and responsibility to conform with the facility's: a. Environmental Management System b. Emergency preparedness and response | |
| 3. Are you aware of the potential consequences of departure from your environmental work practices (environmental impact)? | |
| ADDITIONAL QUESTIONS: | |
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US EPA ARCHIVE DOCUMENT

Example 17-1: General Facility Population Checklist for EMS Internal Audits (continued)

Communication

| Questions | Findings/Observations |
|---|------------------------------|
| (Look for documentation of planning/evidence of implementation) | |
| 1. Have you received information on the facility's Environmental Management System and significant environmental aspects? | |
| 2. How (e.g., facility newsletter, department meetings, training, posters, pocket cards)? | |
| 3. Do you have an example? | |
| 4. If you had a concern about the EMS or any environmental concern, what would you do? | |
| ADDITIONAL QUESTIONS: | |
| | |
| | |

Document Control

| Questions | Findings/Observations |
|---|------------------------------|
| (Look for documentation of planning/evidence of implementation) | |
| 1. Do you have access to current versions of your department's environmental management programs, procedures, and/or environmental work instructions? | |
| 2. Where are they kept? | |
| 3. If there are any postings in the department check to see if they are current. | |
| ADDITIONAL QUESTIONS: | |
| | |
| | |

Example 17-1: General Facility Population Checklist for EMS Internal Audits (continued)

Operational Control

| Questions | Findings/Observations |
|--|-----------------------|
| (Look for documentation of planning/evidence of implementation) | |
| 1. Roles/instructions are clearly understood by querying against documentation that applies to your area(s). Record any findings/observations. | |
| 2. What are the ramifications if instructions are not followed? | |
| List documentation reviewed: | |
| | |
| | |
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| | |

Emergency Preparedness and Response

| Questions | Findings/Observations |
|--|-----------------------|
| (Look for documentation of planning/evidence of implementation) | |
| 1. Do you know the difference between an incidental release/spill versus one that requires an emergency response? | |
| 2. What types of spills/releases are you allowed to clean up? | |
| 3. What do you do if there is a spill/release that requires the services of personnel outside of your immediate work area (i.e., an emergency response)? | |
| ADDITIONAL QUESTIONS: | |
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US EPA ARCHIVE DOCUMENT

Example 17-1: General Facility Population Checklist for EMS Internal Audits (continued)

Monitoring and Measurement

| Questions | Findings/Observations |
|--|------------------------------|
| (Look for documentation of planning/evidence of implementation) | |
| 1. Do you have any monitoring equipment in your area? | |
| 2. What is monitored or measured? | |
| 3. Are there any calibration requirements? What is the frequency? Who performs them? | |
| ADDITIONAL QUESTIONS: | |
| | |
| | |
| | |

Nonconformance and Corrective and Preventive Action

| Questions | Findings/Observations |
|---|------------------------------|
| (Look for documentation of planning/evidence of implementation) | |
| 1. Do you know what to do if you get a CAR? | |
| ADDITIONAL QUESTIONS: | |
| | |
| | |
| | |

Example 17-1: General Facility Population Checklist for EMS Internal Audits (continued)

Records

| Questions | Findings/Observations |
|---|------------------------------|
| (Look for documentation of planning/evidence of implementation) | |
| 1. Does your area maintain any environmentally-related records (e.g., training records, monitoring equipment calibration records, completed forms)? | |
| 2. Do you have an index of those records with storage location and retention period? What is the retention period? | |
| 3. Show me those records (consistency with index and retention periods, readily retrievable and legible, stored to protect from damage, deterioration or loss). | |
| ADDITIONAL QUESTIONS: | |
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US EPA ARCHIVE DOCUMENT

Example 17-2: Top Management Checklist for EMS Internal Audits

Function: TOP MANAGEMENT

| Environmental Policy | |
|--|---------------------------|
| <i>Top Management</i> | <i>Objective Evidence</i> |
| a. Describe your role in the development of the environmental policy. | |
| b. How do you know that your policy is appropriate for your activities, products, and services? | |
| c. What is management's role in the review and revision of the policy? | |
| d. How does management ensure continued adherence to the policy throughout the facility? | |
| e. How does the policy help guide facility decisions? | |
| f. How are employees made aware of the environmental policy? | |
| g. How is the policy made available to the public? | |
| <i>Auditor Note: Is there evidence that the policy was issued by top management (e.g., Is the policy signed? By whom? At what level in the facility?)?</i> | |
| Notes: | |

| Objectives and Targets | |
|--|---------------------------|
| <i>Top Management</i> | <i>Objective Evidence</i> |
| a. What are the environmental objectives and targets for your facility? What is your role in approving them? What are the relevant functions and levels within your facility that support the attainment of each of the objectives and targets? | |
| b. How are the environmental objectives linked to other facility goals (and vice versa)? | |
| c. Are the objectives/targets consistent with the goals of the environmental policy for prevention of pollution and continual improvement? | |

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| Objectives and Targets | |
|---|---------------------------|
| <i>Top Management</i> | <i>Objective Evidence</i> |
| d. How were the objectives and targets developed by or communicated to management? | |
| e. How does management keep up with progress in meeting their objectives and targets throughout the year? | |
| f. How often are you informed of the status of the objectives and targets? | |
| g. On what basis are the objectives and targets reviewed and modified? | |
| Notes: | |

| Structure and Responsibility | |
|--|---------------------------|
| <i>Top Management</i> | <i>Objective Evidence</i> |
| a. At what level within the facility is the designated EMS Coordinator placed? <i>Auditor Note: Is the EMS Coordinator at a level within the facility to effectively implement an EMS for his/her facility?</i> | |
| b. What authority does the EMS Coordinator have to carry out his/her responsibilities? | |
| c. How does the facility assess its resource needs for environmental management? How are these factored into operating and strategic plans (and vice versa)? | |
| d. What resources (financial, technical personnel) has management provided to develop or maintain the EMS? | |
| e. How are you informed on the performance of the EMS? Do you receive routine reports? | |
| f. Are responsibilities for the environmental management of the facility documented? If so, where? Is an integrated structure in place in which accountability and responsibility are defined, understood, and carried out? | |
| g. How are these responsibilities communicated to all employees (including managers)? | |

| Structure and Responsibility | |
|-------------------------------------|---------------------------|
| <i>Top Management</i> | <i>Objective Evidence</i> |
| Notes: | |

| Communication | |
|---|---------------------------|
| <i>Top Management</i> | <i>Objective Evidence</i> |
| a. How are you informed of the environmental issues within your facility? How often does this take place? Does this include compliance issues? | |
| b. How are you kept up-to-date with progress in meeting your facility's environmental objectives and targets? How is this information passed on to your managers? | |
| c. How do you communicate with the facility on environmental issues? How frequently? | |
| d. How does the facility handle inquiries from interested parties (e.g., the public, regulators, other organizations) on environmental matters? Who has responsibility for responding to such inquiries? | |
| Notes: | |

| Management Review | |
|--|---------------------------|
| <i>Top Management</i> | <i>Objective Evidence</i> |
| a. Describe the facility's management review process. | |
| b. How often are management reviews performed? How was this frequency determined? | |
| c. Who is involved in the management review process? What are their roles in this process? | |
| d. What changes have been made to the EMS as a result of the last review? | |
| Notes: | |

Example 17-3: Questionnaire for General Facility Population in Spanish

PREGUNTAS CLAVE PARA ENTREVISTADOS

NOMBRE:

DEPARTAMENTO:

CARGO/FUNCION:

FECJIA:

- 1) Describa en sus propias palabras la Política Ambiental de la organización
- 2) Cuales son sus funciones habituales
- 3) Que entrenamiento ha recibido a la fecha en materia ambiental o del SAA
- 4) Cuales son sus roles y responsabilidades en el sistema ambiental
- 5) Mencione los aspectos ambientales más importantes de su área de trabajo
- 6) Que procedimientos del sistema ambiental están relacionados con su trabajo
- 7) Que registros ambientales son generados o controlados por su departamento
- 8) Cual es su responsabilidad en caso de emergencia / si Ud. es el primero en detectarla
- 9) Que hace Ud. en caso de detectar alguna actividad o hecho que le parezca anormal o incorrecto dentro del funcionamiento del sistema ambiental
- 10) Cuales son los principales Objetivos y Metas ambientales de su departamento y que programas están relacionados al cumplimiento de los mismos

COMENTARIOS GENERALES Y/O OBSERVACIONES DEL AUDITADO: