How CSA Standard Can Help You Conduct an Environmental Compliance Audit

An environmental compliance audit can help your company assess its compliance with the environmental laws and the conditions of any approvals or permits as well as the overall effectiveness of its EHS program. An audit can also help you identify ways to reduce waste, save money, improve overall efficiency and minimize liability risks. But because the environmental laws don't specifically *require* companies to conduct compliance audits, many companies don't—and thus miss out on valuable opportunities.

We'll explain the benefits of conducting an environmental compliance audit and tell you how to conduct one based on the framework provided by a voluntary standard from the Canadian Standards Association (CSA), CSA Z773-03, *Environmental Compliance Auditing*.

Defining Our Terms

CSA Z773 can be used whether you conduct your environmental compliance audit in-house or hire an outside auditor to do it for you. But for purposes of this article, we'll assume you're doing the audit internally.

BENEFITS OF ENVIRONMENTAL COMPLIANCE AUDITS

No environmental law in Canada requires companies to conduct

environmental compliance audits in general. However, two jurisdictions *may* require a company to conduct an environmental audit in certain circumstances. Under the federal *CEPA*, a court may require a company to conduct an environmental audit after being convicted of an environmental offence. And under Alberta's *Environmental Enhancement and Protection Act*, an environmental protection order may require a company to conduct an audit.

But although your company may not be compelled to conduct an environmental compliance audit, doing so voluntarily will help it:

Prove due diligence. Due diligence requires companies to prove they took all reasonable efforts to address known risks, prevent violations and ensure compliance with the environmental laws. Environmental compliance audits are perfect for helping companies meet this burden because one of their purposes is to measure the company's compliance with the environmental laws and the effectiveness of its EHS program. So if your company ever gets prosecuted for an environmental offence, having conducted compliance audits will significantly improve your odds of successfully proving due diligence.

Avoid prosecution. Some environmental laws provide incentives for companies that conduct environmental compliance audits. For example, say your company undertakes an audit and discovers that it's not in compliance with a legal requirement. The environmental laws in NT, NS and NU specifically state that a company that voluntarily discloses non-compliance found through an environmental audit *can't be prosecuted* for that violation, provided that the government didn't already know about the violation on its own and that the company corrects the violation. So in these jurisdictions, audits can give your company a chance to resolve identified violations with the government without being prosecuted.

Of course, even if your company isn't in one of these

jurisdictions, it can still avoid prosecution by conducting environmental compliance audits. That's because, when done correctly, audits will help you identify compliance problems so you can correct them *before* the government gets involved and improve the company's EHS program to avoid such problems in the future.

Save money. Environmental compliance audits can also help the company's bottom line by identifying costly problems and inefficiencies in its operations so you can take steps to address these issues and thus save the company money.

ISO 14001

Many companies have implemented environmental management systems (EMSs) that are certified under ISO 14001, a standard for EMSs developed by the International Organization for Standardization. Others have informally adopted the ISO 14001 principles without getting certification. Environmental audits are an integral component of ISO 14001, which requires companies to have an internal audit program that covers:

- The activities and areas to be audited;
- The frequency of audits; and
- The responsibilities associated with managing and conducting audits.

HOW TO CONDUCT AN ENVIRONMENTAL AUDIT

Because the environmental laws don't require environmental compliance audits, the government agencies responsible for enforcing these laws generally don't provide a lot of guidance on how to conduct such audits. That's where a voluntary standard like CSA Z773 comes in handy. CSA Z773 was specifically designed to provide a framework and procedures for conducting environmental compliance audits.

According to CSA Z773, the basic steps in an environmental compliance audit are:

Step #1: Decide Audit's Objectives, Scope & Criteria

Before the company can begin the audit, it needs to decide the audit's:

Objectives. You do an environmental compliance audit for one or more reasons. For example, the goal could be to:

- Assess the company's compliance with the environmental laws and the terms of any permits or approvals it has;
- Comply with a regulatory order;
- Identify the need for preventive or corrective action; or
- Any combination of the above.

Scope. The company also needs to determine the scope of the audit, including the physical locations, organizational units, activities and processes to be audited as well as the time period to be covered by the audit. CSA Z773 notes that an audit typically covers the period since the last audit. This period should include a full cycle of the operation's processes, taking into account seasonal variations.

When determining the audit's scope, remember that it's an *environmental* compliance audit. So the audit should look at the how the company's operations interact with the environment and should include consideration of:

- Hazardous and non-hazardous waste generation;
- Materials transportation, storage and handling;
- Energy sources and uses;
- Start-up, shut-down and process upsets or potential emergencies;
- Prior spills and releases;
- Physical and chemical emissions and discharges;
- Planned process modifications; and
- Cross-border activities and emissions.

Criteria. CSA Z773 explains that the audit's criteria provide

a standard against which compliance is measured. The audit criteria can include:

- Applicable environmental statutes and regulations;
- Site-specific permits, approvals and licences;
- Statutes, regulations and local laws dealing with issues such as occupational health and safety, fire protection and emergency preparedness that relate to environmental issues; and
- Other requirements, including industry standards.

Step #2: Select Audit Team & Team Leader

The audit should be conducted by an audit team headed by a team leader. To ensure that the audit team is competent, CSA Z773 recommends that you identify the knowledge and skills needed to achieve the audit's objectives and then select team members so that all of the necessary knowledge and skills are covered. If you don't have someone in the company with a necessary knowledge or skill, include an appropriate technical expert.

Ideally, the audit team leader should be a Certified Environmental Auditor. But the team leader can also be someone familiar with auditing techniques, the applicable environmental law and the activities and processes being audited. Sometimes, the role of team leader falls to the EHS coordinator.

Step #3: Prepare Audit Plan & Protocol

Once formed, the audit team should prepare a plan for how the audit will be conducted. The level of detail in the plan will depend on the audit's complexity and scope. It should also be flexible and allow for changes once the audit gets underway. But in general, CSA Z773 suggests that the audit plan cover:

- The audit's objectives, criteria and any reference documents;

- The audit’s scope, including identification of the organizational and functional units and processes to be audited;
- The dates and places where the on-site audit activities will be conducted;
- The expected time and duration of on-site audit activities, including meetings with management and audit team meetings;
- The roles and responsibilities of the audit team members and anyone accompanying them;
- The allocation of appropriate resources;
- The topics to be covered in the audit report;
- Logistic arrangements, such as travel, on-site facilities, etc.;
- Matters related to confidentiality; and
- Any audit follow-up actions.

In addition, the audit team should prepare an audit protocol to be used to verify that audit is being conducted as required by the audit criteria. The protocol can be organized by environmental aspects or audit elements, such as:

- Air emissions;
- Emergency preparedness and response;
- Energy use and conservation;
- Reporting of releases;
- Materials handling and storage, including underground and aboveground storage tanks;
- Planning and process modification, including new chemical manufacture or import and approvals, licences, and permits;
- Specifically regulated materials, such as ozone-depleting substances, PCBs and pesticides;
- Transportation;
- Management of both hazardous and non-hazardous waste; and
- Water discharges and management, including storm sewers,

sanitary sewers and direct discharges to surface water or groundwater.

The protocol should include a checklist that's organized logically to facilitate analysis of the information and includes detailed questions, assertions and/or procedures for each of the environmental aspects or audit elements. (Annex B of CSA Z773 provides an example of an audit protocol procedure for regulated waste generation.)

Step #4: Conduct the Audit

The purpose of the audit is to collect "evidence" on the company's environmental compliance. There are three key ways to do so:

Observe operations. The audit team (or a part of it) should observe the company's operations, including production areas, physical plant and storage areas. Examples of some specific areas in which environmental compliance issues can arise:

- Hazardous waste generation, storage and handling;
- Unidentified materials;
- Storage tanks and secondary containment measures;
- Heating and cooling systems;
- Site drainage;
- Mechanical equipment, especially equipment using hydraulic oils or chemicals;
- Sewage disposal systems (including water discharge); and
- Any sources of air emissions.

While observing operations, team members should note any potential or actual non-compliance.

Review documents. The audit team should also review relevant documents that include data available since the last audit and any data on past activities that can present a current environmental compliance issue. According to Annex C of CSA Z773, the following types of records can be included in a

document review:

- Regulated reporting requirements on emission and discharges, such as NPRI;
- Records that can demonstrate compliance, such as manifests for waste generation and shipments;
- Reporting as required by a facility permit or approval, such as plant operation within certified emission limits;
- Documentation of preparedness, such as emergency response programs;
- EHS program documentation, including environmental policy statements;
- Training records; and
- Incident reporting and follow-up.

Interview key personnel. Interviews of key company personnel can help the audit team fill in any gaps and corroborate or refute information gathered from observations and the document review. The personnel the team interviews should be knowledgeable in the area of questioning and be able to enter relevant areas of the facility and access relevant records.

Step #5: Analyze Evidence Gathered

The audit team must then analyze the evidence it has gathered. It should do so by evaluating that evidence against the audit criteria to determine the company's level of compliance. It should also note any unsatisfied criteria. CSA Z773 recommends that the team's findings be expressed as statements of fact and not be accompanied by subjective statements. But the audit's findings can identify opportunities for improvement if consistent with the audit's objectives.

Step #6: Prepare & Present Report on Audit Findings

Lastly, the audit team leader must prepare the audit report. This report should provide a complete, accurate, concise and clear record of the audit, including a summary of the audit

process, its findings and any recommendations. The audit team leader should give the report to senior management and review it with them.

BOTTOM LINE

Environmental compliance audits can identify areas in which the company isn't meeting its compliance obligations *before* the environment is harmed and the company is exposed to liability and fines. But the audit will be a waste of time and money if you, as EHS coordinator, don't ensure that the company takes appropriate action based on its findings. After all, there's no point to identifying compliance problems if the company isn't going to do what's necessary to fix them.