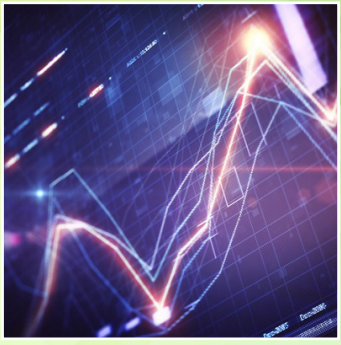
sphera™

Run an Efficient
EHS Audit Program






Focus on the Value Add and Let Technology Deal with the Mundane Aspects of Auditing

Internal audit teams are increasingly asked to execute more with less. Audit planning exercise becomes a balancing act between the organization's limited audit resources and the long list of priorities laid out by the board and its audit committee. Chief auditors and their senior staff are now relying on integrated audit solutions that help manage the full audit lifecycle from beginning to end, including audit planning, execution and wrap-up.

The Environmental Health & Safety Audit is just one category of many that needs to be addressed as part of the chief auditor's full plan. Depending on the size of the organization, these audits could be part of the same audit system or managed separately in an EHS-specific audit platform. Every organization is different, and there is no one-size-fits-all scenario. Larger organizations tend to have multiple audit platforms. With manufacturing and industrial firms, the EHS auditor will likely have a stronger voice and may influence the selection of the audit platform for its group or for the enterprise.

From an EHS audit efficiency standpoint, the identified audit platform technology, its interface, integrations, content and reports should resonate well with EHS audits and inspections methodology. A generic setup abstracted to support all audits may not work well and might drive the EHS auditor to look for alternate platforms or use the centralized audit system merely as a document management system.

EHS Audit Scoping – Risk Perspective

First, let's understand the scope of EHS audits and what factors influence the preparation of the multiyear audit plan. Risks relevant to the company's business and actual events, either internal or external that affect the company, play a significant role in the planning process. A few of the many elements of the risk universe that come into play for companies, in industries such as Chemicals, Manufacturing, Metals & Mining, Oil & Gas, Power & Utilities, Consumer Products, Government and Life Sciences, are listed here along with the typical checklist questions and metrics from the auditor:

Chemical Inventory
Is there an accurate record of all chemicals stored in the company's facility? Is that in line with permits as well as local and federal requirements?

Industrial Hygiene
Is the company collecting all relevant metrics and tracking well against Occupational Exposure Limits (OEL)?

Hazardous Waste
Is there cradle-to-grave accountability of the waste? Are procedures in place to identify and segregate hazardous waste? Are hazardous solid waste materials properly placed in permitted treatment, storage or disposal facilities?

Oil/Chemical Spill Control (Business Continuity and Disaster Recovery)
Are procedures well-documented and tested periodically? Are contingency plans in place to clean up and remediate oil and chemicals? Are spill control and prevention plans and procedures in place to prevent them from being released into the environment?

Toxic Substances
Are pesticides, asbestos, lead and other toxic substances properly managed?

Drinking Water
Are drinking water systems monitored for chemical contamination like lead, arsenic, chromium and bacteria? Are backflow prevention systems installed and tested?

Underground Storage Tanks
Are underground tanks installed and managed to prevent leaks of chemical substances to groundwater aquifers? Are tanks inspected, monitored and tested for leaks?

Community Right-to-Know
Are local communities kept informed of the quantities and hazards of chemical substances stored in nearby facilities? Are Risk Management plans in place to prevent toxic releases to the local environment?

Employee Safety Programs
Are there written programs and procedures in place for hazardous energy, confined spaces, hot work, electrical safety and safeguarding machines to protect employees from injuries?

Employee Training Programs
Are employees trained in proper safety procedures for operation and maintenance of powered industrial trucks, cranes, hoisting equipment, slings, ladders, laser equipment, drill presses, welding, grinding and scaffolding?

Air Quality
Is the facility in compliance with air permit conditions? Are air pollution controls working properly? Are air pollutants more than permitted quantities or concentrations? Are they being discharged to the ambient air without treatment?

Wastewater Discharges
Are wastewaters from your organization contaminated? Do they contain toxic or hazardous substances? Are they discharged into rivers, streams or other bodies of water without treatment?

Product Quality
Are company products meeting client specifications? Have you looked at all the recall risks including any health and safety risks associated with the user or consumer?

To add to above, several newer implementations of Internet of Things (IoT) technologies are in the process of being rolled out at various industries to manage the above risks, making the job of the auditor more sophisticated. Therefore, Technology risk, overlaid with the previously listed risks, is now an EHS auditor's responsibility as well.

EHS Audit Scoping – Compliance Perspective

Audit programs include validation of both internal and external compliance initiatives. While the U.S. Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA) and state EHS regulations fall under external compliance, internal initiatives, based on International Organization for Standardization (ISO) frameworks or otherwise, such as policies and procedures, training, awareness guidelines, fall under internal compliance. Financial liabilities, in terms of penalties and the required installation of expensive pollution control equipment, can have a huge impact on a company's bottom line. It is important to not only stay on top of external regulations but also to "do the right thing" internally so that situations don't gravitate to the point where external compliance costs become too excessive in the future. In other words, waiting for the external regulator to spot and report the violation may not be the best strategy for the organization.

Several insights published on Sphera's website (spherasolutions.com/blog/), and other external sources cover the nature of inspections and list of fines from OSHA, the EPA and others. Suffice it to say, internal auditors are the last line of defense before the regulator, which makes the auditor's job so important for the company.

EHS Audit Framework

Audit committees establish a company's audit charter and methodology based on internal preference and guidance provided by external organizations such as The Institute of Internal Auditors (IIA) and ISO. In most cases, from an audit system implementation standpoint, audit methodology components include a multi-year audit plan; audit universe or audited entities; audit work paper or audit templates with phases such as Pre-Audit, On-site Audit, Post Audit, Wrap Up and Reporting among others; audit procedures; findings or observations; and remediation activity. Keep in mind that terms may vary from one company to another.

Example EHS Audit Methodology

PHASE	ACTIVITY
Audit Plan and Setup (Annual)	Document audit objectives Establish and update audit universe Prepare and/or update a multiyear audit plan Allocate budget, including hours and expenses Assign auditors and responsibilities Prepare audit protocols, checklists and tools Establish and/or update audit library of work papers, procedures or tests, risks, controls and other templates
Pre-audit (Per Audit)	Establish audit dates and logistics with auditees Document and set up audit procedures, tests, risks and controls Update planned or scheduled hours and expenses
On-site Audit (Per Audit)	Execute kickoff meetings, orientations with facilities Review EHS plans and procedures and documents Review compliance records for previous years Interview key EHS and operational personnel Conduct physical inspection of site operations Conduct daily briefings and final closing meeting
Post-audit (Per Audit)	Prepare draft audit report Send audit report to the auditee for comments Submit final audit report Document and log findings, collaboratively prepare remediation plan and monitor for completion Conduct customer satisfaction survey
Audit Plan Tracking (year end and ongoing)	Review progress against audit objectives and coverage, and update plan for following years

Case for Integrated EHS Management System

Most industry accepted audit platforms provide a mechanism to manage the list of identified audits along with the detailed audit procedures associated with the audits. These audit systems support audit methodologies, such as the one outlined in the example, providing built-in navigation linkages between the various components of the company's audit framework.

These technology underpinnings make it easier to inventory and cross link (as appropriate):

1. The individual rules and regulations relevant to the company across all jurisdictions.
2. Risk and controls associated with the company's EHS risk universe outlined above.
3. Checklists, audit and test procedures to confirm operating effectiveness and compliance.
4. Audit universe elements such as businesses, processes, IT systems, vendors, policies and procedures.
5. Source systems and metrics that provide the testing evidence.
6. Auditee information including relevant tasks and invites sent to manage the audits.

The above list is not comprehensive, but it drives home the point that managing all of that information in spreadsheets or something along those lines can be a futile undertaking. Additionally, the audit trail, an important requirement, can be very difficult to maintain without an automated platform.

To provide a seamless experience, large EHS audit system providers have purchased or developed technologies to provide all EHS automation needs from a single vendor. From an auditor's point of view, it has become easier to pull incidents, metrics (e.g., total recordable incident rates), remediation action plan status, control evaluations, risk assessment results (e.g., Process Hazard Analysis, or PHA; Hazard and Operability, or HAZOP; Layer or Protection Analysis, or LOPA; or Failure Mode and Effects Analysis, or FMEA,) from one integrated system.

EHS Auditor – A Crucial Link for the Enterprise

Most auditors are well-received when they present themselves as an independent consultant working in the interest of the auditees' organization. Auditees—the first and second lines of defense, which include plant personnel, EHS managers etc.—look for constructive feedback and value-added advisory services from auditors. Auditors therefore need to move beyond a checklist approach of managing audits.

Accordingly, the EHS audit profession demands a high degree of specialization compared with other audits such as financial controls where it is easier to work with new hires. PHA, HAZOP, LOPA, FMEA, Management of Change (MoC), Maintenance and Repair Operations (MRO) and Industrial Hygiene are just a few of the many EHS areas that demand a solid understanding of site operations to be effective in the audit profession.

This level of expertise has enabled auditors to independently analyze EHS metrics—such as wastewater composition, air emissions, etc.—and identify improper environmental controls. Their reviews of lock-out, tag-out programs, personal protective equipment and chemical storage practices have saved many lives and prevented many injuries. Their due diligence on MOC and PHA procedures have helped keep communities safe from untoward incidents.

After many years of service, several of these auditors are now close to retirement. Employers should make sure that this knowledge and experience is retained within the company, when these resourceful employees leave the workplace.

An institutionalized audit platform that captures all activities followed by these practitioners may help a company manage its transition plan from one generation to the next.

Conclusion

Audit departments are measured by the number of audits performed, number of audits performed vs. plan, comprehensive audits performed and audit universe coverage vis-à-vis incurred audit hours and expenses. Operational efficiency in executing the audit functions is always looked at favorably by senior management. The core expertise of EHS auditors is best served in creating unique value and providing insights to the enterprise. The mundane aspects of auditing such as project planning, work paper management, spreadsheet management, collaboration with auditees and drafting audit reports are best left to audit platforms that have increasingly become better at taking on these opportunities. Cloud deployments of audit platforms have removed dependency on companies' internal IT departments as well. EHS auditors have many justifying factors now to implement secure, scalable, cost effective and maintenance-free cloud-based audit platform deployments from integrated EHS platform vendors.

About Sphera

For more than 30 years, Sphera has been committed to creating a safer, more sustainable and productive world by advancing operational excellence. Sphera is the largest global provider of Operational Excellence software and information services with a focus on Environmental Health & Safety (EH&S), Operational Risk and Product Stewardship. The Chicago-based company serves more than 2,500 customers and over 1 million individual users across 70 countries. Sphera is a portfolio company of Genstar Capital, a leading middle-market private equity firm focused on the software, industrial technology, financial services and healthcare industries.

sphera™

www.spherasolutions.com

For more information email us at:
operationalexcellence@spherasolutions.com