Companies first began to audit their activities for environmental, health, and safety issues in the 1970s. The goal was to provide assurance to their boards of directors that their operations complied fully with government regulations and company guidelines for environmental, health, and safety matters. Today, leading audit programs are mastering a new role: assessing the efficacy and value of environmental, health, and safety management systems. At the same time, these programs are adapting to a business climate in which every corporate function is under continuous pressure to deliver added value. Without slackening efforts to verify compliance, they must make the most of staff and other resources and better understand and serve the needs of audit program customers across the organization.

During Arthur D. Little’s Best of the Best Colloquium on EHS Auditing, industry participants from 11 leading companies discussed how they are enhancing the value of audit programs worldwide. They also identified three major thrusts in EHS auditing: Audit programs today are contributing to company efforts to drive decision-making and managerial control downward in the organization and create increasingly lean, flexible, customer-focused corporate functions; they are seeking a better fit with customer needs through approaches that measure and ensure program effectiveness and performance; and they are developing ways to increase their value by supporting organizational learning.

Pushing Compliance Audits Down to Line Organizations

As corporate audit program activities expand from ensuring compliance to assessing systems for environmental, health, and safety management, some companies are shifting part of the responsibility for compliance assessment to line organizations. This shift requires new kinds of expertise at the business level and new oversight responsibilities for the corporate audit program. As the experience of colloquium participants shows, pushing compliance audits down to the line can be successful if attention is paid to issues such as:

- Clearly defining requirements and guidelines, including laws, company standards, and industry practices
- Making best use of information technology to transfer lessons learned
- Placing responsibility and accountability for compliance with the facility
- Increasing the corporate audit group’s focus on management systems

Companies have also found that a formal structure for implementing the shift in some audit responsibilities is critical for maintaining, and improving upon, the audit program’s overall quality. Texaco offers one example of such a structure for managing audits at the corporate and line-of-business levels. To manage the audit process for its 60 organizations, 430 facilities, and many other smaller operations, Texaco uses a three-tiered structure for its audit program: EHS management systems assessments, EHS compliance audits, and EHS facility self-assessments. The divisional EHS audit group is now in the process of looking at whether it can create some synergy between the management systems audits and compliance audits to reduce the number of external visits.

WMX Technologies launched a self-audit program in 1988 when the corporate group provided the facilities with protocol summaries. Starting in 1990, WMX developed a tool called the „Compliance Management System,“ a database of applicable requirements with scheduling and tasking guidance. Ashland Chemical’s approach to achieving greater integration between the corporate audit program and facility self-assessment includes a „Facility Manager’s Regulatory Guidebook.“ The book provides a quick overview of key regulatory requirements and points out steps for properly handling difficult issues identified in previous audits.

A prime benefit of self-assessments or audits is that they allow facilities to examine compliance issues more often. Most companies find it impractical to schedule full, independent audits for each facility more often than every three to five years. Self-assessments help keep continuous, rather than cyclical or intermittent, focus on all aspects of compliance. The corporate audit group’s role in a successful self-assessment initiative focuses on ensuring the quality of self-assessment results, integrating key issues and findings into management systems, and making sure that knowledge and learning are captured and transferred to all relevant staff.
Ensuring Audit Effectiveness and Performance

As auditing has become increasingly sophisticated, organizations have also sought to know more about the performance of their audit programs. Are audits accomplishing their goals in the most effective, efficient way possible? Are they providing the information their stakeholders need, when they need it? Is the value provided by the audit program in line with the resources it requires from corporate and line organizations? To gather this information, companies have established channels for learning about specific concerns of audit program stakeholders, from plant managers to boards of directors, and have put together systems to measure the performance of audit programs.

Communicating with Stakeholders. The channels that audit program managers use to understand the needs of each of their stakeholders are tailored to those stakeholders. Meetings, surveys, and appraisal forms are among the methods companies have used effectively to pull in feedback from different levels of the organization.

WMX Technologies pays close attention to how its customers at the senior management and line management levels regard the audit program. The managers of the audit program meet quarterly with a senior management team. At the plant level, the auditors ask plant managers to send in customer satisfaction forms after an audit, and then follow up by telephone on very positive or negative comments.

For Avenor, external customers have emerged as important consumers of audit and environmental performance information. “Environmental auditing in the forestry industry is very market-driven,” said Wally Vrooman, Vice President, Environment, at Avenor. Vrooman prepares status reports and accompanies sales staff on customer visits to talk about the company’s environmental performance.

Measuring Effectiveness and Performance.

An audit program is, in many respects, a measurement effort. So how do companies measure the measurers? Participants at the Best of the Best colloquium cited audit efficiency, audit effectiveness, and audit value and learning as key measurement targets. Leading companies look at audit efficiency by considering factors such as staffing compared with industry best practices, audit report timeliness, and audit schedule changes. They assess effectiveness through means such as comparing audit program design and implementation, seeing how well audit results predict other EHS performance indicators, and tracking whether the program achieves a high level of closure on audit issues. They assess value and learning through approaches such as customer satisfaction surveys and follow-up on guest auditor programs, best practices meeting and databases, and other knowledge-sharing activities.

Ashland Chemical used a brainstorming session of internal auditors to develop an extensive set of measurement approaches. “Senior management drove the process,” said Jim Ball, Manager of the Operations Auditing Group in the EHS Department. “They were seeking ways to measure improvement. We also sought to respond to internal customer service satisfaction surveys and to satisfy our own desire for professional improvement.” In developing measures, the audit staff considered ways to develop expertise, improve the focus on customer needs, and build teamwork.

ARCO Chemical places the measurement of audit program effectiveness – and auditing as a whole – within the context of measuring and improving management systems effectiveness. “We started off from day one with a focus on management systems,” said ARCO Chemical’s Jim Garland, Director, Manufacturing Auditing. “We didn’t get into the question of compliance versus management systems.” ARCO Chemical has established four requirements for management systems effectiveness: “We assess whether the system is designed correctly, if it has been implemented as designed, if it is being executed by personnel with the requisite level of knowledge and understanding, and if it is producing the desired performance,” he added.

Enhancing the Value of the Audit Program

Like other corporate functions, from marketing to human resources, auditing programs today are being asked: “What do you do for the businesses that they can’t do for themselves?” Companies that have developed best practices in environmental, health, and safety auditing are answering this challenge by:

• Using audits to promote learning in the line organization
• Adding value within the audit process
• Expanding their coverage of management systems effectiveness

Using Audits to Promote Learning. Companies have recognized for some time that audit programs harbor a considerable pool of knowledge and expertise about environmental, health, and safety matters. It isn’t always easy to transfer that knowledge. The most effective auditors – and audit programs – have learned to communicate good (and bad) news from audits in compelling ways. They whet their customers’ appetite for more information.
Some practices developed at Alcoa show how companies can better communicate valuable audit information. For example, when Alcoa’s audit team finds an approach that exceeds requirements (a very difficult criterion to meet), the auditor writes up a “special situation.” Alcoa employees can then access this small group of highly positive write-ups of facility best practices through the company’s intranet. ARCO Chemical and WMX Technologies are among the other companies working to gain maximum advantage from good practices by posting them to a database that is widely accessible within the company.

As Jim Garland of ARCO Chemical cautioned: “You can record best practices. Getting them transferred is tougher. But that’s really where the payout is.” At ARCO Chemical, the practice of using staff from one facility to audit another is one way to increase what is learned from audits. Many other companies also find that guest auditor programs, in which line staff participate in corporate-led audits of facilities, are a highly effective way to expand audit capabilities in line organizations and at the facility level.

Describing the value of the established guest auditor program at AlliedSignal, Ralph Rhodes said that using guest auditors “helps build support for the program. People look at auditing in a professional way, instead of playing defense.” CF Industries’ Richard Ghent, Manager of the EHS Audit Group, commented that plant managers have welcomed the idea of training their staff as guest auditors. “They want people who see the things we see and see them before we see them. It’s to their benefit on a day-to-day basis – and we’re seeing more day-to-day compliance.”

**Adding Value Within the Audit Process.**

Companies are increasing the value of the audit program in part by finding new ways to share audit information. WMX Technologies has developed a database, the Compliance Action Reporting System (CARS), that generates reports in any form about the history and status of environmental, health, and safety compliance at WMX facilities. Alcoa is using a similar database, located on its intranet and accessed by employees through the company’s internal home page. “We keep the information that people want to know about EHS audits there,” said Alcoa’s Jim Boyt, Manager of Environmental Audits. “It provides schedules and benchmarks, as well as a preview of the facilities and processes, so that you can see if the findings are relevant to your facility.”

Avenor has found that facility managers see much greater value in the audit program when “we show them the things that are good, and encourage the mills when they are improving performance.” said Wally Vrooman. When facility managers see that the risk assessments included praise of what the mills were doing right, and contained good recommendations about addressing findings, they become much more willing customers for audit services.

**Expanding Coverage of Management Systems’ Effectiveness.** As companies gain experience with managing environmental, health, and safety issues through management systems, they turn to their audit programs to provide them with assurance about management systems’ effectiveness. Said Don Fraser, Manager of Auditing, Monitoring, and Reporting, Environment and Sustainable Development Division, Ontario Hydro, “We’re clearly moving away from compliance audits and going into audits that include the systems issues,” said Fraser. “Our plant managers are saying now, ‘Don’t just tell me I don’t have the label, tell me why, in my system, there’s a deficiency there.’”

As audit programs become more focused on management systems issues, companies are asking themselves whether the audit program can (or should) drive performance. and, if so, to what extent. “You could say it shouldn’t,” said ARCO’s Jim Garland. “But in our company, it is a major contributing factor. The linkage between the audit and performance improvement is embedded throughout our system. When people see what’s on the audits, they look at those systems. The workload changes as a function of what will be audited.”

At the same time, companies recognize that audits are not scheduled frequently enough to support continuous improvement. Ultimately, what audits do best is to verify or ensure that the company is moving in the right direction. If a company has a top-flight audit program but isn’t seeing improved performance, that’s evidence of a lack of integration and coordinated goals. The best chance to change behavior is through defined corporate targets and initiatives launched within the framework of a management system.

**The Pathway Forward**

Just as today’s audit programs are dramatically different from those of 15 years ago (Exhibit 1), the paradigms that shape auditing today may well seem outdated when companies look back on them 15 years from now. But no matter how the rules of the game change for audit programs in the next 15 years, today’s emphasis – on asking how audit programs add value to the business – will likely remain central.

An emphasis on value also brings with it specific mindsets about cost. Thinking in terms of a “value ladder” helps clarify the value-versus-cost choices companies make. The ladder begins with “less for less” and progresses through “more for less” and “more for the same” to “more for more.” Many companies are framing expectations for audit programs, and many other functions, in terms of “the same for less” – and that is not a
Audit programs will benefit from identifying a value proposition that works for the program and fits into the value proposition that drives the company. It’s equally important to be sure the program is ready to answer challenges from within the company about performance. Are companies doing things faster, better, smarter, cheaper, and more reliably? They need to know, because it’s only a matter of time until the audit program is going to be challenged.

For many companies, as environmental, health, and safety management grows more advanced, a strong value proposition may emerge as the audit function begins to converge with management systems assessments. The more advanced audits, whether they are financial or environmental, include confirmation – not merely assessment – of management systems’ effectiveness. As audit programs frame future value propositions, they will benefit from understanding how other internal audit functions, such as financial auditing, connect with and contribute to management systems.

You can also meet the value challenge by viewing your program as a “learning organization” – an organization that accelerates the pace of positive change and continually finds new ways to contribute value to the business through systematically gathering and retaining tangible learning from business and organizational experience. Few parts of the organization are more effectively positioned to be gatherers and retainers of significant learning than its audit program. If auditing is viewed as a source of insight and understanding that can accelerate environmental, health, and safety performance – and business performance – audit programs may well have a value proposition that will carry them far beyond the next 15 years.

1 The “Value Ladder” was introduced by Robert F. Tucker, Win the Value Revolution, Career Press, 1995.

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