

# The Insurance Industry as a Qualified Third-Party Auditor

*A proposal to improve environmental safety*

**By Larry Collins, James C. Belke, Marc Halpern, Ruth A. Katz, Howard C. Kunreuther and Patrick J. McNulty**

ALL SAFETY, HEALTH, ENVIRONMENTAL and risk management professionals are stakeholders in issues involving safety, health and environmental protection. The insurance industry, in particular, is a major participant in the modern safety movement. As such, it exerts substantial influence on SH&E protection and regulatory compliance in various industrial, nonindustrial and commercial areas (including boiler and machinery safety, fire safety, building and construction safety, and security). Many would argue that the insurance industry's influence through underwriting criteria—especially premium credits for good safety performance and premium surcharges for increases in risks—has been a primary societal influence on improving overall community safety (Collins "A Proposal"; Halpern and Splain).

In today's complex world, the ability of government agencies such as OSHA and EPA to monitor and audit the safety practices of companies that use environmentally sensitive processes and materials is limited. Budgetary and resource constraints, as well as the large number of potential sites and facil-

ities to monitor make this task virtually impossible to fully carry out.

The insurance industry can effectively fill this gap using its existing infrastructure. Currently, some 7,500 loss prevention field representatives work in the insurance industry (Collins). These individuals are actively engaged in safety assessment and risk improvement activities for insured customers. This cadre of seasoned professionals already works in areas similar to those of concern to agencies such as

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EPA, OSHA and the Dept. of Transportation (DOT). Their work simply needs to be extended to this new area as a way of improving a customer's overall environmental safety record while simultaneously providing a credible evaluation of compliance with existing regulations and standards.

This article is the result of research sponsored by EPA's Chemical Emergency Prevention and Pre-

paredness Office (CEPPO), through a grant to the Risk Management and Decision Processes Center at the University of Pennsylvania's Wharton School. The research involved a series of roundtable meetings at which representatives of CEPPO, several insurance companies, public interest groups and academia discussed ways to supplement EPA's enforcement activity by utilizing private-sector

organizations. Many federal agencies do not have the staffing needed to ensure compliance in all areas where they have responsibility. A proposal for utilizing third-party inspections and insurance to promote environmental safety, and this article on that topic, are the result of that effort.

The idea of using third parties as auditors was extensively tested and reviewed during two pilot studies at both water chlorination and ammonia refrigeration facilities. The first study was conducted in 1999 by Delaware's Dept. of Natural Resources and Environmental Control (Barrish and Antoff). EPA Region III completed the second study in Pennsylvania in 2000 (U.S. EPA). Final reports clearly show the value that third parties could bring to environmental safety, and highlight the extensive experience insurance industry loss prevention specialists would bring to the process.

This article suggests that the insurance industry adapt the same risk assessment and risk reduction processes used for other insurance lines of business to these ends. It also proposes a method by which this can be accomplished. A description of the insurance industry's existing risk assessment and risk reduction process helps explain how this might occur. Indeed, much of the success of the two pilot studies can be attributed to the participation of the insurance industry in Delaware and Pennsylvania. Its representatives completed more than half of the site visits, a task facilitated by their ability to translate existing audit experience to these pilot projects.

### **The Process Today**

No insurance underwriter wants to bind coverage on an account that is likely to result in significant losses for the insurer. To avoid this, insurance companies employ loss prevention specialists who have three major functions: risk assessment, risk reduction and relationship development.

### **Risk Assessment**

Before coverage is bound, a loss prevention specialist visits a customer's site, audits its safety programs, reviews accident records, tours the facility and prepares a risk assessment report about the prospective client's safety-related strengths and weaknesses. These reports are a major factor in the risk selection process for the insurance company.

Not all clients come through this process unblemished. In fact, most have safety-related issues that must be resolved. As part of the assessment process, the loss prevention specialist makes recommendations to reduce the customer's overall loss potential. When coverage is bound, a recommendation letter that outlines specific actions a customer must take to resolve these deficiencies is issued.

These recommendations can be very specific or very high level. For example, a specific recommendation could include the need to guard particular machines. High-level suggestions could include the need to implement programs (e.g., accident investigation) or the need to implement management-related

controls (e.g., hiring a safety director). Recommendations are issued to help customers reduce the number or severity of actual losses; implement good safety practices; and/or comply with existing (or proposed) safety regulations.

These recommendations are placed in a diary for follow up. After 30 days, the insurance representative contacts the customer to determine what corrective action has been taken. Usually, no more than an additional 30 days is allowed as a second follow-up period for receiving information regarding actions taken.

If, after 60 days, no completion information has been received, an underwriter may issue a notice of policy cancellation. In most states, a customer's policy can be cancelled mid-term for one of three reasons: 1) failure to pay the premium; 2) material misrepresentation on the nature of the risk (difficult to prove); or 3) failure to comply with loss prevention recommendations (Webb, et al 5+).

### **Risk Reduction**

It can take considerable consulting time and effort to teach customers how to implement loss prevention recommendations. Many simply do not know what makes up a good quality environmental management or accident investigation program. Here, the second function of the loss control specialist—risk reduction—comes to the fore.

Through a combination of audit and analysis, significant potential or actual losses are analyzed for trends, safety programs are explored and gaps in control measures are identified. The most-critical improvement needs are identified, and service plans and programs implemented to address these problem areas. The idea is that losses can be reduced over time. By serving as loss prevention consultants, insurers help clients reduce potential and actual losses. The example in Table 1 demonstrates this process.

Other areas where such consulting commonly occurs include self-inspection, forklift training, sprinkler system maintenance and testing, warranty literature (for product liability) and driver training. Environmental loss prevention service is also provided. The goal is to reduce, over time, the frequency and severity of accidents that a customer experiences. The technique has proven successful, producing frequency reductions of up to 40 percent over a two-year period for customers willing to implement improvements.

While the insurance industry wants to provide coverage for those companies not likely to have accidents, it also wants to provide coverage for cus-

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**Table 1**

## Reducing Risk Potential

Assume a customer is experiencing the following frequency of claims for different types of losses. Assume that the losses follow the same percentage. In other words, 50 percent are due to materials handling/back injuries, 25 percent are due to machine guarding, hand injuries, etc.

Loss Type	# of Claims This Year	% of Total Claims
Materials handling/back injuries	20	50
Machine guarding, hand injuries	10	25
Slips, trips and falls, soft-tissue injuries	6	15
Cuts, hand injuries	2	5
Dust-related injuries, particles in eyes	2	5

Assume also that machine guarding is not adequate; significant ergonomic and lifting-related problems exist; the client has no accident investigation program; and no materials handling hazard assessment or lifting-related education has been completed. While the last three accident types in the table will eventually require attention, the loss prevention specialist would likely first assess materials handling tasks and machine guarding, and provide recommendations for improvement in those categories since they are the most costly. Follow-up activities would then focus on implementing an accident investigation program and conducting relevant employee and supervisor training. At the end of the service period, the client's operation will be safer than before.

tomers willing to improve their performance and thus reduce the potential for accidents.

### Relationship Building

A third principal objective of the loss prevention representative is to develop a relationship with the insured. During this process, thorough knowledge of the insured's operation as well as specifics of that industry are developed. Over time, the specialist develops a keen sense for issues that might go unnoticed by someone unfamiliar with this customer/industry. This familiarity promotes further safety improvement. And, because the customer trusts the specialist and his/her advice, recommendations are more likely to be acted on than if they came from someone visiting the facility for the first time.

### The Changing Face of the Insurance Industry Consultant

The role of insurance field representatives has changed dramatically in the last 20 years. Today, many have advanced degrees in safety-related disciplines and wide experience with auditing and consulting. Internal training programs have also shifted their focus from detailed "inspections" to helping upper management achieve long-term control over their facilities. In addition, consulting techniques are also taught; as a result, when confronted with problems, representatives are more likely to succeed in convincing upper management that problems need resolution rather than short-term fixes.

### The Proposal

The same process that works well for the insur-

ance industry can be readily adapted to the environmental loss prevention process in general. In short, it is proposed that insurance industry loss prevention reports, when properly constructed, administered and delivered, would be acceptable to the environmental authority having jurisdiction as evidence of compliance with current regulations. The system would work as follows.

A customer would apply for environmental liability insurance from its insurance carrier. A loss prevention representative would visit the customer's site, assess its environmental loss prevention efforts against a set of standards provided by the appropriate regulatory authority and issue a report to the insurer's underwriter.

These requirements would include those prescribed for

risk management plans in Section 112(r) of the Clean Air Act, which are designed to reduce the potential for accidental releases. Specific requirements include the need for loss reviews, hazard analysis, offsite consequence analysis, emergency planning and safety management, as well as the need for improved communication with the affected public through meetings, published safety management plans and required sharing of these plans with the regulatory community. Loss prevention representatives are already familiar with such issues through their work with OSHA's Process Safety Management (PSM) standard.

If the loss prevention report and other insurance-related issues are acceptable, the policy would be issued and the report sent to the customer. The customer could then send this report to the appropriate environmental authority, which would accept it as *prima facie* evidence of a facility's compliance with current regulations. The regulator would then hold in abeyance further inspections of that facility.

Through such a process, environmental regulators would obtain credible reports of a site's compliance without a government inspector ever visiting the facility. The customer would receive advice from a well-trained professional and the insurance industry would acquire a new service to offer customers in partnership with the government.

A key point to note: Until the company passes the risk assessment process and submits a report to the appropriate environmental authority, it remains on the same level of regulatory inspection scrutiny as any other company that has decided not to be inspected by the insurer. This process has significant

benefits for regulatory agencies. It creates a broader base of survey data and helps the agencies focus limited resources on those companies that do not demonstrate regulatory compliance.

Now consider the case of a customer that does not pass the risk assessment process but is keenly interested in doing so in order to reduce its potential for losses and regulatory scrutiny, as well as to receive a premium credit. This customer would work with the loss prevention specialist to improve safety practices and achieve compliance. Again, the worst problems would be addressed before lesser ones.

In summary, the insurance industry would focus its resources on the high-quality, cooperative companies. EPA would then redeploy its resources to target those companies that have not submitted an acceptable report. As more firms elect to be inspected through their insurance companies, those not participating increase their likelihood of being inspected by EPA. Rather than facing this potential government scrutiny, they, too, will lean toward the insurance company option, thus creating a virtuous cycle. The more customers inspected by their insurers—instead of EPA—the more others will choose this path (Kunreuther, et al).

### The Risk Management Program

Section 112(r) of the Clean Air Act establishes a system of risk management for specific substances. Owners or operators of a stationary source with more than a threshold quantity of a regulated substance (one of 140 toxic and flammable substances listed in 40 CFR Section 68.130) in a process, as determined under Section 68.115, must submit a risk management plan (RMP). These plans cover three elements: hazard assessment, accident prevention and emergency response.

EPA estimates that some 15,000 stationary sources are potentially subject to RMP requirements. Covered facilities include most manufacturing sectors; cold-storage facilities that use ammonia for refrigeration; public drinking water and wastewater treatment systems; chemical wholesalers; utilities; and a limited number of service industries, such as janitorial services and commercial laundries.

To ensure that individual processes are subject to requirements appropriate to their size and the risks they may pose, EPA created three categories or “programs.” Program 1 processes are those that meet specific conditions establishing that they do not present a substantial hazard to people or the environment offsite. These processes are subject to minimal requirements, such as a hazard assessment and submission of an abbreviated RMP, but are excluded from compliance with prevention and emergency response elements.

At the other extreme, processes classified as Program 3 are subject to the most-stringent requirements; these include hazard assessments, a prevention program modeled after the PSM standard, an emergency response program and a management system. All other processes fall into Program 2 and are subject

to most Program 3 requirements, with a streamlined version of the prevention program requirement.

### Rationale

EPA’s primary directive is to ensure environmental safety in order to protect the health and well-being of U.S. citizens. This mandate is extraordinarily strong. The agency also has a financial interest. Here, the insurance industry has a major self-regulating interest in promoting environmental safety. Each time a covered loss occurs, an insurer writes the claim check to pay for the damages. Again, perhaps an example is the best way to illustrate how this process works.

Several years ago, a company that used hexane in its process suffered a leak. The hexane trail traveled to a nearby interstate highway where, it is believed, a passing car’s engine heat ignited the gas. Witnesses saw a blue flame travel the several hundred yards back to the hexane tank, which exploded. The explosion caused:

- customer property damage, which impacted the fire insurance policy;
- worker deaths and injuries, which affected the workers’ compensation policy;
- residential property damage for a considerable distance around the facility, which impacted the liability policy;
- vehicle damage, which impacted the auto policy;
- a temporary shutdown, which impacted the business interruption policy;
- a pollution incident, which impacted the environmental policy.

The claims department issued checks to fulfill the insurance company’s financial responsibility for each separate coverage.

As this example illustrates, the insurance industry has a significant financial interest in preventing accidents. This vested self-interest also works to society’s benefit by encouraging—and often mandating as a condition of retaining insurance coverage—safe operations by insureds. Insurance companies exercise this financial power through credits/debits to the premium—or, in extreme cases, the threat of policy cancellation should the customer be unwilling to improve its operations. This financial incentive can be an extraordinarily powerful motivating factor.

In short, although the government may have the public interest in mind, the insurance industry has its own financial interests at stake. These two interests complement each other for the benefit for all concerned. Often, customers prefer to respond to market forces rather than to regulatory forces—

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particularly financial considerations they already understand rather than to a command-and-control regulatory process. Therefore, the insurance industry system of loss prevention surveys and consultations provides an alternative method for improving environmental safety and verifying regulatory compliance.

A second benefit is that this process is generally self-funded. Loss prevention representatives are already visiting customer sites regularly for other coverage assessments, including environmental issues. No governmental funding is needed to pay for this survey process. All that is needed is recognition and acceptance by the appropriate authorities of the credibility of reports already being generated. By granting such acceptance, some 7,500 insurance industry field representatives instantly become available to help monitor regulatory compliance while continuing their ongoing efforts to assess risk and improve safety.

Therefore, from an insurance industry point of view, the costs of such a program are no higher than today, with the exception of minor expenses involved in distributing actual reports. The risk assessments are already being paid for through the underwriting process.

A third benefit is that this process would enable a unique kind of government/public/industry partnership. To date, the trust between the various parties has simply been insufficient to allow such cooperation. This proposal breaks new ground in bringing the various groups together to pursue the common goal of improving environmental safety.

To fully understand this proposal, one must understand that the customer sends the risk assessment report to the environmental authorities. Insurers conduct their studies and risk improvement visits for their own underwriting purposes; thus, they are under no duty or obligation to share these reports with anyone. In fact, it is the confidentiality of the visits and reports that makes the system feasible. In most cases, customers do not want insurers to reveal negative findings to any government policing agency. They would be reluctant to let insurance industry representatives conduct surveys if they believed problems were being reported to the regulators. Therefore, the ability to continue conducting these visits confidentially, without reporting any results (other than conditions immediately dangerous to life and health) to anyone is critical to the success of this proposal.

#### **Legal Liability**

A key concern raised by this proposal is how

much legal liability third-party auditors would acquire by participating in such a program. While this proposal does not represent a legal opinion, several issues would need to be addressed. First, the insurance industry would continue to develop underwriting risk assessment reports as it does now. The primary purpose of these reports would be to underwrite various policies. As noted, insurers are under no obligation to distribute the reports to anyone. In addition, the reports only reflect information provided by a client. As such, the customer/client retains the primary responsibility for their accuracy.

Second, the insurance industry would only distribute reports to the actual customer, which then reviews the information, ensures its accuracy and, if desired, submits the reports to the appropriate regulator. Thus, the regulatory body only receives the reports if the customer sends them to the agency. If it does, the reports become part of a company's supporting documentation for inspection relief.

This is a critical issue. No one but company management should have responsibility for the results of its environmental safety management system. Only the client can create the risk and successfully manage it. No third party should dilute that responsibility.

However, once a contract is signed on an unbundled basis (meaning services are being provided on a fee basis, not as part of the services provided under a standard insurance policy), normal contract rules apply. Even here, the third-party auditor should have the right to limit its liability through the use of disclaimer letterhead.

One possible conflict of interest would arise if an auditor observes a condition that is immediately dangerous to life and the client is unable (or unwilling) to take immediate corrective action. This is an issue that safety professionals often face today. While the authors are aware of no formal requirement that safety professionals report such findings to any regulatory body, common sense and professional ethics would suggest such action. As such, while assumed that these conditions would be discovered rarely, when they are, some type of formal reporting must be considered.

#### **RMP Third-Party Audit Pilot Project**

The idea of using third parties as independent auditors was extensively investigated through a series of roundtable meetings at the University of Pennsylvania's Wharton School. These meetings explored the use of third-party auditors and led to two field pilot tests of the concept. Participants included CEPPPO, the Wharton School, Delaware's Dept. of Natural Resources and Environmental Control, EPA Region III, loss prevention representatives, private companies, trade and professional associations, other government agencies and consultants.

The pilot experiment was conducted in two phases during 1999 and 2000. In these studies, third-party auditors were used to evaluate RMP compliance at 21 chemical facilities in Delaware and Pennsylvania. Through the experiment, EPA wanted to test the con-

cept of third-party inspectors for RMP compliance audits in two different regulatory environments.

Following a two-day training program, Phase I of the pilot was conducted in Delaware, where a state-level accident prevention law similar to section 112(r) already existed (Barrish and Antoff). Phase II was conducted in Pennsylvania, which had no state-level law (U.S. EPA "Third-Party").

Study participants hoped to answer several questions:

- Could third parties conduct comprehensive risk management program audits?
- Would these audits be as rigorous as audits conducted by government inspectors?
- What background and experience would best prepare a third party to conduct RMP audits?
- What additional training would be necessary to prepare prospective third-party auditors?
- How would facilities react to the presence of auditors? Would facilities see value in the audit?
- How much time would an audit take?
- Would facilities in states without previous accident prevention laws in place be less compliant with the RMP rule and, therefore, more difficult for a third party to audit?

In summary, the two pilot projects conclusively demonstrated that:

- 1) third parties could successfully conduct compliance audits at RMP facilities with adequate rigor;
- 2) previously existing state regulatory environment had little effect on the ability of third parties to conduct adequate audits;
- 3) facilities reacted favorably to the presence of third-party auditors and found third-party audits to have value.

The pilot studies and roundtable meetings also provided valuable insight into other critical issues, such as necessary training and experience for third-party auditors; costs; incentives needed to encourage facilities to volunteer for an audit; and the potential role of insurance companies in third-party audits.

From an insurance industry perspective, the pilot studies were also successful. Key findings:

- Prior auditing experience translates well into the environmental arena.
- Auditor training was key to the success of the pilot studies.
- The report format used, while successful during the pilot, might be too extensive for use on an ongoing basis. Some reports were more than 100 pages for simple assessments.
- Client cooperation was key. Without their active participation, successful interviews and surveys could not be completed.

### Quality Control

To satisfy itself that high-quality levels of participation and practice are being conducted, the environmental regulator would have the right to audit insurance companies that provide such services. As with any large group, the industry's field representatives range widely in skill. While many have excellent

abilities as field auditors, some junior representatives have limited experience and others simply lack the necessary capabilities. An audit conducted by the appropriate government representatives would ensure quality by identifying both "best practices" approaches and substandard performance.

In the authors' opinion, this process could be undertaken fairly easily and inexpensively. First, the regulatory agencies would have copies of the written reports submitted by clients as evidence of compliance. A statistical sample of these facilities could be resurveyed by government inspectors each year in order to verify that facts reported are the same as facts observed.

A resurveyed company should have a reasonable period of time to correct any problems found. That time period would vary depending on the severity of the problem identified. Imminent hazards

to life, property or the environment would require immediate action, while less-threatening issues could be given greater leeway. The point is that some significant consideration would be given to those customers that participate in the program in terms of allowing them time to comply with a regulation or standard without being penalized or fined.

Loss prevention practitioners would also receive audit results, along with recommendations for the individual field representative on how to improve his/her performance. Through this process, the environmental agency would provide on-the-job training to those conducting field surveys. Over time, this would produce a strengthened insurance industry field force.

A remediation or discipline process would be needed to address any certified insurance inspector found to be performing at unacceptable levels. For example, reports of these inspectors would no longer be accepted as evidence of regulatory compliance. This process would help assure the public that reports are accurate and that poor performers are identified and dealt with appropriately.

### Implementing This Proposal

Implementing such a far-reaching philosophical change in government and industry policy will be a challenge. However, with strong commitment from all stakeholders, this new partnership among government, insurance companies and regulated industry can be achieved.

The effort could begin with a conference to bring together key parties in order to obtain their agreement and public commitment to participate. These key players could include:

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- the Wharton Risk Management and Decision Processes Center at the University of Pennsylvania;
- U.S. EPA and appropriate regional offices;
- professional societies such as ASSE, American Industrial Hygiene Assn. (AIHA) and American Institute of Chemical Engineers (AIChE);

- certification bodies such as the Board of Certified Safety Professionals (BCSP) and the American Board of Industrial Hygienists (ABIH);
- appropriate public interest groups and industry trade groups;
- representatives of insurance company loss prevention groups.

What might their roles be? The Wharton School is critical to organizing and coordinating the proposed effort. Various pieces of anti-trust and anti-price-fixing legislation prevent insurance companies from directly talking to each other except at a round-

table-type conference. The Wharton School provides an excellent forum for such a gathering.

EPA and appropriate regional offices must provide the legal framework permitting such a program. They need to create the regulatory environment where the cooperative program becomes possible.

Professional societies such as ASSE, AIHA and AIChE need to inform their members (many of whom would perform the actual surveys) about the new program. They would also need to train and educate their members on how to work successfully with clients and regulatory agencies. Their journals can publicize the proposal, letting members know of the expanded area of potential involvement. In addition, through training and professional development programs, these groups need to educate members in the areas of environmental safety auditing and safe practice.

BCSP, ABIH and AIChE would be needed to create a certification and testing program for accredited environmental auditors. These organizations have experience administering certification exams and programs.

Loss prevention divisions of insurance companies, along with their underwriters, need to agree to participate. They would become the front line in providing a credible, independent third-party system.

Industry trade groups need to accept this program as a viable option. In many ways, they have the most at stake and must be willing to participate. Otherwise, the program would likely fail under the weight of the inevitable lawsuits that would occur.

Public interest groups, such as the Clean Air Council, need to understand the proposal and participate in its design and layout requirements. They need to be involved in studies to assess the general public's perceptions; communicate the features of the pro-

posed program; and share concerns with other key parties. They also need to see the potential benefits of having an additional 7,500 field representatives from the private sector working in environmental safety.

All interested parties need to help design an acceptable quality control program to ensure that what is reported in the audits accurately reflects actual conditions.

**Conclusion**

The system proposed would enable environmental regulators to accept qualified loss prevention reports from certified insurance industry representatives. Such reports are a normal part of the underwriting process and would be undertaken at no additional cost to the regulatory community. In addition, they allow the insurance industry to identify acceptable insurance candidates and, by doing so, help EPA focus its energies on noncompliant businesses.

The public interest guarded by the EPA is a powerful motivator. However, the financial self-interest of the insurance industry is an equally powerful force. If initiated, this new partnership could be a significant, positive influence on environmental safety throughout the U.S. ■

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