Health and Safety Beyond Incident Management

by Matt Noth
Introduction

Managing occupational incident and accident reporting are the focal points of most EH&S management efforts. However, by applying the same management controls and disciplines to additional related areas, the effectiveness of overall health & safety programs can be improved and risks better managed. The correct focus in these five areas:

- Audits and Self Inspections
- Industrial Hygiene
- Occupational Medicine
- Emergency Response
- Training Management

can lead to dramatic improvements in overall EH&S performance and ensure that organizational goals for operational excellence are met.

ABOUT MATT NOTH

Matt Noth, Environmental Sales Specialist with SAI Global, has 15 years experience in engineering and EH&S compliance management enabling him to provide guidance to organizations trying to bridge a gap between federal, state, and local regulatory obligations and their organization’s business requirements. Matt holds a B.S. Mechanical Engineering from University of Texas at Austin and an M.S. Environmental Management from Samford University.
AUDITS AND SELF INSPECTIONS

Organizations need to measure the effectiveness of their health and safety policies by assessing (a) how effectively risk are controlled (b) how deeply a positive health and safety culture is embedded in the organization and (c) how well policies are understood and followed by the workforce. Increasingly, an organization’s EH&S audit program will directly input into standards-based programs such as ISO14001, ISO18001 & ISO50001 as well as corporate sustainability reporting initiatives.

A low accident rate, even over a period of years, is no guarantee that risks are being effectively controlled and will not lead to injuries, ill health or loss in the future. This is particularly true in organizations where there is a low probability of accidents but where major hazards are present. Here the historical record can be an unreliable or even deceptive indicator of safety performance.1

Periodic reviews and audits of the health and safety management system elements are needed to ensure that operational policies and related management controls are working correctly and are effective.2 Such a review should include:

- A full audit of all safety systems of the organization
- A comparison of the standards established during planning and implementing - and in current use - to the latest issued standards
- Other information that can help determine whether or not the initial strategy is working or whether change is needed to achieve the desired objectives
- A survey or other measure to confirm that the workforce understands the policy and has confidence in its completeness and effectiveness

Health & Safety Audit programs may also include behavior-based safety observations since these can provide important frontline feedback on the effectiveness of your overall policies.

Especially with the growing acceptance of the required collaboration between Compliance and Audit functions, periodic auditing of each component is a critical step. For multi-site organizations auditing should include the management health and safety systems as well as the linkage to systems at the business unit and site levels. In practice, many audit systems fail to include this.

The aims of auditing should be to establish that:

- Appropriate management arrangements are in place
- Adequate risk control systems exist which both reflect the hazard profile of the organization and are properly implemented
- Appropriate workplace precautions are in place

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History suggests that any organization undertaking auditing will gain benefits providing they answer the questions truthfully and understand the system’s limitations. The very process of undertaking an audit can itself improve a health and safety management system, if only because of increased awareness and involvement of senior management.

**INDUSTRIAL HYGIENE**

Industrial Hygiene (IH) is the practice of protecting and enhancing the health and safety of people at work and in their communities. Health and safety hazards cover a wide range of chemical, physical, biological and ergonomic stressors. Anticipation, recognition, evaluation and control of these hazards have always been the prime goal for industrial hygiene programs. The knowledge from the IH program is used to anticipate when a hazardous condition may occur and then take corrective actions as needed to mitigate the discovered hazards.

Effective Industrial Hygiene programs address five key areas:

- Health hazard recognition
- Health hazard evaluation
- Health hazard control
- Employee education and training
- Audit of the program’s effectiveness and update of the program for continuous improvement

How the industrial hygiene program proposes to address these elements must be contained in a written plan. In addition, an organized, centralized system, which effectively documents and records the associated information, must be put into place. Especially important is a computerized data management system to store, retrieve, treat and review the industrial hygiene data.

Establishing a comprehensive industrial hygiene program can be a formidable task even when many of the basic elements are available. The growth of an organization often requires a change in industrial hygiene operational methods, as well as increases in resources to manage the program. Needed components of successful programs includes: 1) learning the management system; 2) defining IH concerns; 3) establishing IH priorities, goals and objectives; 4) defining the business needs; 5) communicating the business needs; and 6) managing the program and measuring progress.

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**OCCUPATIONAL MEDICINE**

Occupational Medicine (OccMed) is designed to minimize personnel health risks from working with hazardous materials through monitoring and prevention. Occupational Medicine programs are intended to enhance the efficiency of existing safety and health programs and keep the organization/company in compliance with all applicable regulations.7

Occupational Medicine programs generally include:

- Workplace safety history and hazard evaluation
- Periodic medical review
- Re-examination for specific problems
- Specific workplace hazards with special requirements
- Injury medical care
- Exposure monitoring (evaluation of results from IH)
- Regulatory and internal performance reporting requirements
- PPE usage including respirators

**EMERGENCY PLANNING AND RESPONSE**

A comprehensive emergency management program encompasses all hazards and all related planning areas including emergency and disaster planning and preparedness, hazard identification and mitigation, emergency response, disaster recovery, business continuity and resumption, crisis management, continuity of operations, and related areas. An Emergency Management Program is an overarching process that includes mitigation, preparedness, response, and recovery.8

Essential elements of emergency preparedness9 planning include:

- Identify hazards and assess risk
- Assess capabilities and resources
- Develop an emergency plan and procedures
- Integrate the plan with the community plan
- Conduct training
- Public relations
- Conduct Drills and Exercises
- Develop Plan Audit Procedures
- Documenting meetings and outcomes
- Assigning following Actions & Tasks
TRAINING MANAGEMENT
Key elements of training management include:¹⁰

- Competence management
- Content management
- Learning management
- Compliance with standards

Effectively managing the required skills and qualifications of your staff, including identifying and remediating when these skills or qualifications need updating, ensures that individuals understand their responsibilities and accountability to achieve workplace compliance and ensure a hazard free environment.

When workforce training data is included in an integrated management system, it becomes a powerful tool when on-boarding staff, moving staff between operational areas and as an input when conducting causal analysis as part of your investigations process.

CITATIONS / REFERENCES
2. Management of Health & Safety; Joe McNicholas; July 2000
3. Auditing health and safety management systems: a regulator’s view; A. S. Gay and N. H. New; Health and Safety Executive Operations Unit, UK
4. American Board of Industrial Hygiene
5. The Industrial Hygiene Process: Managing the Occupational Health of Employees to Contribute to the Health of the Steel Industry; Bernard J. Quinn - Iron & Steel Technology; March 2009
6. Developing and managing an industrial hygiene program; American Industrial Hygiene Association Journal; Lichtenstein ME, Buchanan TG, Nohrden JC.
7. Introduction to Occupational Medicine; Department of Environmental Health and Safety, Iowa State University
8. Emergency Planning and Management: Ensuring Your Company’s Survival in the Event of a Disaster; Stringfield, William; 1995
9. Emergency Response - 2005 SWRI Annual Meeting; Jose A. Carpena, PE; OSHA
10. Modelling Requirements and Architecting Large-Scale On Line Competence-Based Learning Systems; Geoffrey Darnton; Bournemouth University Business School and Meta Modelling Ltd.; 2002
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