

## Regulatory Compliance and Risk Management: Relevancy of Both in Environmental, Health, and Safety (EH&S) Management Programs

*Monday, September 13, 2010: 11:05 AM-11:45 AM*

*Tuesday, September 14, 2010: 4:00 PM-4:40 PM*

In an ongoing effort to maximize resources, companies are emphasizing and designing programs around the concept of environmental, health and safety (EH&S) risk management. Risk management systems can allow for more inclusive program ownership, comprehensive program design and implementation, and innovative monitoring activities focused on risk avoidance and reduction. However, by incorporating a risk management strategy, the role of regulatory compliance in the EH&S program may become diminished. Management may accept noncompliance, overlooking the fundamental duty to comply. The primary objective of this technical session is to explore the importance of both regulatory compliance and risk management in EH&S program design, implementation and monitoring through the use of industry examples and the sharing of concepts identified through global auditing activities.

Authors: *Stacey A. Nunn, CHMM, CSP and Carrie F. Ramirez, CHMM, CIA*

## Beyond the Checklist: Risk-based EHS Compliance Process Audits

*Monday, September 13, 2010: 2:00 PM-2:40 PM*

Compliance auditing is a commonly used, highly relied upon practice within the EHS management world. The outcome is a list of noncompliance observations that management can learn from and address. Clearly, standard compliance audits assist management in assessing compliance, allocating resources, and decision-making. However, the audit report does not identify why compliance did or did not occur. Plant management is left to make this determination or face the likelihood of repeated compliance failures during future EHS audits.

A risk-based, process audit is a better approach. It includes a compliance component, but does not end with the list of noncompliance observations. Auditors provide a prioritization of findings based upon the associated risks. In addition, auditors become more involved in root-cause and program gap analysis providing plant management with a valuable tool - the ability to apply long-term corrective actions to address the root causes for the compliance failures identified. This results in increasingly more compliant facilities, and systematic and sustainable compliance programs. Laureen McMurray will focus on key considerations when designing, implementing, and executing risk-based EHS audits including tried-and-tested tools, tricks and lessons-learned. Questions and interactive dialogue welcome.

Author: *Laureen A. McMurray, CHMM, CPEA*

## General Stormwater Permitting: State-by-State and Federal Initiatives

*Tuesday, September 14, 2010: 2:35 PM-3:15 PM*

The EPA issued a revised multi-sector general industrial stormwater permit last year, along with numerous online resources. However, across the US there is still significant variability in the requirements of general stormwater industrial permits, both among the states, and between the states and the EPA. As part of the technical session, I will provide a handout which summarizes the requirements of each state's permit as compared to the federal permit (including analytical and visual sampling requirements, stormwater pollution prevention plan requirements, reporting requirements, and inspection requirements). Trends in state permits will be discussed in comparison to the federal permit.

Additionally, there are several stormwater initiatives at the federal level which have either been recently promulgated or are in the process of being developed. A new construction general stormwater permit with numerical effluent limitations was recently issued, and the EPA has embarked on a process to broaden the scope of permit requirements for municipal separate storm sewer systems (MS4s) and possibly establish specific requirements to control stormwater from new development and redevelopment. These new initiatives will be summarized and discussed.

Author: *Jennifer M. Schuch, CPEA, CHMM*

## Sustainable Groundwater Remediation Reduces Municipal Burden

*Tuesday, September 14, 2010: 4:00 PM-4:40 PM*

This presentation will describe the beneficial reuse of treated groundwater from a Superfund site for potable water supply. Contaminated groundwater from Superfund sites is usually treated and discharged to a stream or

storm sewer or conveyed to a wastewater treatment plant. Reuse of treated water as potable water is an attractive alternative if community stakeholders are assured of the quality of the treated water and if the treatment meets regulatory requirements.

The U.S. EPA and Nebraska state agencies collaborated in reviewing the groundwater extraction and treatment (GET) system design and construction. The state approved potable use of treated groundwater only after the system's effectiveness in treating contaminants of concern had been demonstrated. Residents have made no complaints about the quality of the potable water. This is the first instance of groundwater reuse from a Superfund site in a Nebraska municipal potable water system.

The City of Columbus reuses more than 70 percent of the treated flow as potable water, reducing withdrawals from the aquifer and conserving energy. Excess treated water is discharged to the storm sewer system. Because components of the GET system are powered by electricity generated by a nearby hydroelectric dam, the system's carbon footprint is relatively small.

The project exemplifies sustainable reuse of groundwater from a remedial system, which can be continued as long as the GET system is needed to remediate groundwater contaminants. This project's success arose from the collaboration between EPA, the city, and state regulatory agencies to conserve valuable water resources.

Authors: *Laura Splichal, CPEA, CHMM and Marc Schlebusch, P.E.*