AECON Delivering a better world

2022 Environmental

Webinar Series

Innovative Environmental Solutions in Our New World



EHS & Air



EHS Auditor Competency - A Fresh Look

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Section 313 of the Emergency Planning and Community Rightto-Know Act (EPCRA) requires reporting of releases of toxic chemicals on the EPA Form R or Form A. Commonly referred to as Toxics Release Inventory (TRI) reporting, this annual report requires a detailed calculation to determine which toxic chemicals must be reported and then a second detailed calculation to estimate releases to all environmental media and transfers off site. Since the TRI reports are submitted once each year, many of us are relearning the requirements as we work on the calculations. Depending on the facility, company, or industry, different aspects of the TRI program are critical. In this discussion, we look at the basics of TRI compliance efforts and focus on those pitfalls and issues that can impact compliance or slow down a compliance effort.

This webinar reviewed the qualities of a competent EHS auditor, including gualifications, skills, behaviors, and knowledge. We also looked at the value proposition and training aspects, as well as improvements and measurements of EHS auditor competency. Technology has been further introduced into various aspects of auditing and remote auditing became essential for many organizations over the past two years and likely to stay in some form. This webinar assists EHS directors/managers in the identification, selection, and continuing development of qualified and competent EHS auditors.



Mitigating Disease Spread in the Workplace: Lessons from the COVID-19 Pandemic

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Root Causes

Process Safety Accidents &

This webinar provides a summary of five seemingly different accidents that happened in the past 4 years, and what the root cause investigations ultimately tell us about how to improve process safety in general and process hazard analyses specifically.

Even before COVID-19, infectious diseases led to millions of worker absences every year. This webinar discusses disease-causing microbes and the best practices to mitigate their spread as we move into our new normal in a world with endemic COVID. Many workplaces are ending their remote working and requiring workers to return to in-office work. It is important to implement infectious disease policies and procedures to protect workers and include those policies in return-to-work plans.

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OSHA Heat Stress Standard – How Things are Heating Up

View Recording



In September 2021 the Occupational Safety and Health Administration (OSHA) announced their intentions to enhance and expand measures to protect workers from hazards of extreme heat, indoors and out. This was followed by the initiation of the rulemaking process and an increased focus on heat stress hazards in the workplace by enforcement officials. Learn what you can do to prepare for this hotly anticipated regulatory change.



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Environmental Permitting & Planning



Submarine Cable Routing: Navigating Competing Uses of the Ocean

NO RECORDING AVAILABLE Slides Available Upon Request

Net Zero Accounting: Wholistic Digital Impact Assessment

View Recording

Experts demonstrate, through the wholistic lens of PlanEngage, the federal Impact Assessment requirements for the accounting of GHGs (Net Zero) under the strategic assessment of climate change, air emissions, and constraints mapping.

Building low-risk submarine cable routes requires a detailed study of the human uses of ocean space and the marine environment to account for a variety of external risks that could pose a threat to the cables. The presenter discusses the methodology and importance of performing detailed, desktop study constraint analyses prior to starting marine construction survey work. Deep-dive, frontend research can identify risks early on in a marine construction program, which helps to identify the optimal footprint and saves resources in the long run.

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Supporting Indigenomics through Partnerships

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Advancing Wildlife Permitting & Conservation with Quantitative Tools



Quantitative tools, such as statistics, modeling, and geospatial analysis, are integral to wildlife conservation. These tools are regularly applied in the permitting, assessment, and impact-avoidance processes that form the basis of much of AECOM's Environmental Permitting and Planning (EPP) project work.

In this webinar, ecology and wildlife permitting experts discuss diverse topics and describe examples of how they have applied their ecological and quantitative skillsets to create innovative solutions within a variety of projects. Discussion includes:

 Geospatial modeling of California Condor movements to assess potential impacts of wind energy projects



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Indigenomics is the study of modern Indigenous economic design and the development of Indigenous spaces across industries. Partnerships that support Indigenous companies build economic portfolios that consider both the potential opportunities and hurdles of Indigenous-led projects.

The Henvey Inlet First Nation and Pattern Canada partnership is an example of such an affiliation in the renewable energy sector. A 300 MW wind energy centre with a 104 KM transmission line was realized through this 10-year project. Consideration of many issues led to project success: jurisdictional, financial, cultural, and geographical. AECOM undertook the environmental assessments and environmental monitoring during construction and, importantly, integrated the community's Environmental Stewardship Regime with Canadian and provincial environmental regulations.

The Henvey Inlet Wind Energy Centre has been online since October 2019.

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Frank Davis / Canada Country Head, Pattern Energy Group LP • Marine spatial planning for offshore energy development

 Applications of modeling tools used to predict and document impacts of land-based wind energy projects on eagles

• Evaluations of technologies designed to detect or deter birds and bats at wind turbines





Remediation



Global Perspectives and Industry Trends on Naturebased Solutions

View Recording

Natural Source Zone Depletion: Incorporating Nature-based Solutions into Petroleum Site Management

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Natural source zone depletion (NSZD) refers to the reduction in mass of hydrocarbons within light nonaqueous phase liquid (LNAPL) source zones through naturally occurring processes. Improved understanding of NSZD processes and refinement of measurement methods in recent years has shown that microbial activity within the LNAPL source zones is typically much higher than previously thought. As a result, NSZD measurements are more frequently included in the characterization and remediation of

Nature-based Solutions refers to a management approach that uses natural processes to solve socio-economic environmental challenges. While various iterations have appeared throughout history, in different cultures, NBS as an ideology was not formally embraced until approximately 2013 (European Commission) and then in 2019, with additional global support and NBS initiatives from several nations. NBS typology is examined with a focus on concepts, approaches, and stakeholder engagement in context with societal benefits and evolving industry trends. A forthcoming webinar will examine various case studies and success stories.

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LNAPL sites to achieve a variety of objectives, from evaluating the relative benefit of engineered remedies to mapping LNAPL distribution and demonstrating source zone stability. The presentation provides an overview of NSZD concepts and a description of current measurement methods. Case studies are presented to highlight potential strengths and weaknesses of different techniques, and to provide example scenarios where NSZD has been successfully incorporated into site management.



Gazing into the Crystal Ball: PFAS Regulations in Our Future

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Are Nature-Based Solutions Possible for PFAS?

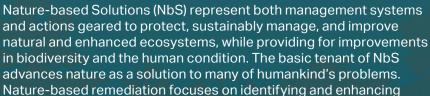
AECOM will discuss per- and polyfluoroalkyl substances (PFAS), a group of emerging contaminants that are receiving increased regulatory scrutiny because of their ubiguity, persistence, and toxicity. This presentation focuses on the current and evolving policies and regulations for PFAS in North America that drive investigations and treatment strategies for environmental media, drinking water, and wastewater. We share anticipated future regulatory developments, their timing and where the population may be affected by PFAS.

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natural and enhanced ecosystems, while providing for improvements in biodiversity and the human condition. The basic tenant of NbS advances nature as a solution to many of humankind's problems. Nature-based remediation focuses on identifying and enhancing existing systems, including biological systems, to help foster contaminant degradation. Per- and Polyfluoroalkyl Substances (PFAS) are problematic chemicals due to their recalcitrance and persistence in nature, combined with very low parts-per-trillion level toxicological thresholds for many of the compounds. Transference of PFAS into vegetation and other biota is well-documented. Recent bench-scale level studies have suggested that microbe-induced degradation of PFAS is possible. This presentation provides an overview of current research on biologically-mediated PFAS remediation, including phytoremediation, mycoremediation, and 'omics studies. Other novel applications are discussed. This presentation is technical, with advanced concepts on PFAS-plant interactions; only a brief overview are provided on PFAS chemistry and behavior.







This presentation shares how AECOM's DE-FLUORO[™] technology for PFAS destruction has progressed substantially in the last two years. DE-FLUORO[™] uses electrochemical oxidation (EO) to defluorinate PFAS in liquid wastes, and presents a mobile, flexible, and effective technology for destroying these 'forever chemicals.' Advancing beyond the pilot phase, we now have one full-scale field demonstration completed and a second underway. Learn how the DE-FLUORO[™] team has used results from our real-world trials and pilot demonstrations to design and build full-scale systems for either batch or flow-through treatment.

AECOM GEORGIA

DE-FLUORO™

Getting Ahead of the PFAS Dilemma: DE-FLUORO™ Destruction Technology Advances

View Recording

LC-120

Rebecca Mora rebecca.mora@aecom.com







The Circular Economy – Being Green with Brown



In this webinar, we review the current U.S. political and economic drivers of the waste-to-energy economy. Discussion includes a review of prevalent technologies and the unique needs in reaching a sustainable energy future.



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About AECOM

See how we are delivering sustainable legacies for generations to come at aecom.com and @AECOM.

