One (1) Hour Workshop Erosion and Sediment Control

An Industrial Hygienist's Approach to Erosion and Sediment Control

Friday, February 28, 2025 9:40 AM – 10:40 AM ET Location: E11B

CE: 1 PDH

Level of Presentation: Intermediate

Presenter(s)

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Industrial hygiene is a specialty within the broader field of environmental, health and safety (EHS). Industrial hygienists focus on the anticipation, recognition, evaluation and control of health hazards that cause illness or disease in workers and citizens of the community. Root cause analysis tools are commonly used to analyze why controls failed to protect workers or citizens from serious incidents or harmful exposures.
There are some obvious parallels between protecting people from health hazards and protecting surface waters from contaminants such as sediment during construction activities. This presentation will explore those similarities and recommend a more proactive approach to how projects are designed and executed building on the tools used by Industrial Hygienists and the application of techniques used for root cause analysis.

Full Abstract: Famous college basketball coach John Wooden is credited with saying, "If you don't have time to do it right, when will you have time to do it over?" As an Industrial Hygienist, there was not much tolerance or opportunity "to do it over." Employees, employers, and regulatory agencies were quite critical of situations that could injure workers or cause serious illness. We were expected to analyze hazards and design controls that were effective at preventing injury or illness. When those controls failed and were found to be inadequate, an investigation utilizing root cause analysis methods was conducted to understand why the controls failed and ensure effective controls in the future.
Industrial hygiene is a specialty within the broader field of environmental, health and safety (EHS). Industrial hygienists focus on the anticipation, recognition, evaluation and control of health hazards that cause illness or disease in workers and citizens of the community. There is a recognized

hierarchy of controls that starts with engineering controls, then administrative practices, and finally personal protective equipment. When analyzing a specific operation, it is common to look at the source of the hazard, the path of exposure, and the receiver's uptake or dose. Finally, root cause analysis tools are commonly used to analyze why controls failed to protect workers or citizens from serious incidents or harmful exposures.

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Learning Objectives:

At the conclusion of this presentation, attendees will:

- Recognize the similarities between protecting people from health hazards and preventing sediment contamination of surface waters
- Apply concepts used to recognize, evaluate, and control health hazards to the control of erosion and sediment control during construction
- Examine the causes of sediment discharges and development of effective controls by applying techniques of root cause analysis