

Abstract

Overview of On-line Sensors – Who, What, and Why ?

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October 2015

The ability to measure physical, chemical, and even biological properties of water and other environmental media is not new, and has been a feature of industrial process control systems for decades. However, translating these often well-established sensors to environmental compliance monitoring scenarios has faced a number of obstacles. Some of those obstacles are truly technical, but many others are legal, bureaucratic, or are based on a lack of understanding of the benefits that might be gained by enhancing the monitoring paradigm that has been in use since before the formation of the U.S. Environmental Protection Agency and the passage of the Clean Water Act and the Safe Drinking Water Act.

This presentation provides an overview of many of those challenges, beginning with the technologies that are currently available, defining the terminologies, and illustrating the approaches being used or considered by federal agencies such as NOAA and EPA's Office of Water, and voluntary consensus standards bodies such as ASTM.