Abstract #129

Mobile Laboratories: An Innovative Approach in Bacteria Monitoring

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Biographical Sketches of Authors

Art Garceau is the Chief of the Surveys Section of the Office of Water Quality, Indiana Department of Environmental Management. He supervises the surface water quality monitoring of the State's rivers and streams, collecting physical and chemical parameters. In his position he is responsible for maintaining the collected data, issuing reports of the monitoring activities, distributing data to many and varied users, and assessing data for CWA 305(b) submissions.

Mindy K. Garrison is a graduate of Morehead State University with a BS in Environmental Science and has been employed as an Environmental Specialist for the Ohio River Valley Water Sanitation Commission for the last three years. She coordinates the Contact Recreation Sampling, Ambient Water Quality Monitoring, and the abatement of Combined Sewer Overflows.

Abstract

Bacteria monitoring over large areas poses special challenges due to the fact that bacteria samples only have a six-hour hold time. In order to collect valid bacterial data at distant locations, IDEM developed the concept of a mobile laboratory equipped to perform bacterial analyses on site. After seeing the advantages of using a mobile laboratory, ORSANCO decided to purchase its own mobile laboratory to allow bacterial monitoring over the entire 981mile length of the Ohio River.

The labs are set-up for processing bacteria samples using the Colilert® method for total coliforms and *E. coli*. In addition to analyzing all samples by Colilert®, confirmation samples are collected at 10 to 20 percent of the sites, and are analyzed for *E. coli* and fecal coliform by contract laboratories using the membrane filtration method.