

Friday, Oct 12, 2007

1:40 PM – 2:30 PM

Room 126

Engineering & Architecture Building

All are invited to attend

Pizza will be served

Environmental Seminar Series

Controlling PCBs In The Delaware Estuary

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Controlling bioaccumulative pollutants such as PCBs in estuarine ecosystems like the Delaware River Estuary requires innovative approaches. Guided by an expert panel of scientists experienced in the assessment and modeling of PCBs, initial efforts focused on 1) revising and expanding a current hydrodynamic model of the estuary; 2) establishing and calibrating a water quality model for one PCB homolog, pentachlorobiphenyls; 3) expansion of a network of air monitoring stations to assess the relative impacts of regional and local sources of PCBs; 4) mapping of estuarine sediments and geophysical studies of important sediment processes; and 5) extensive picogram level congener data on ambient water, sediments and PCB sources including NPDES discharges, tributaries and air deposition.

The first stage was completed in December 2003. Ninety four NPDES point sources were required to include additional monitoring using low level analytical methods for PCB congeners, and 41 dischargers developed pollutant minimization programs (PMPs). Subsequent refinement of the TMDLs is targeted for completion in 2008. This staged approach allowed the formulation of key findings that will guide further studies, and the identification of significant sources that can be targeted for additional characterization and source reduction while further development and refinement of PCB homolog models continue. Key challenges include the development of a NPDES permitting strategy that will comply with current federal regulations, and the identification of pollution reduction strategies and techniques that will result in the substantial reduction of PCBs to the estuary.

**The CEE Department offers a Minor in Environmental Engineering, and a
MS in Environmental Engineering. For more information contact:
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