

Sewage Authority, Linden, NJ

PISCES—PCBs

Summary

Media:	Surface water
Study Type:	Side-by-side
Technology:	Equilibration
Peer Reviewed:	No
Publication Date:	2003

Study Description

- PISCES samplers were deployed in five sewer lines and sewage influent for 8–14 days and whole water samples were collected from the same locations using automatic pump samplers at a sewage authority near Linden, New Jersey.
- Samples using both methods were analyzed for PCB congeners for comparison between methods.
- PISCES sampling results for total PCB concentrations were lower than concentrations found by analysis of the water samples (average of 48% of the whole water concentrations), likely due to the inclusion of suspended solids compared to soluble phase PCBs only in the PISCES results.

Remedial Phase

Not applicable; study was performed to compare the methods in the field.

Outcome

Samples collected using PISCES passive devices yielded lower total PCB concentrations than whole water samples and provided differing results for congeners, whereby lower chlorinated congeners were higher in PISCES results, but higher chlorinated congeners were lower in PISCES results than whole water samples.

Case Study Reference

Loganathan, B.G; J.A. Botts; B. McKenna; and J. Spadone. 2003. Comparison of passive in situ chemical extraction sampling (PISCES) and whole water sampling methods for PCB trackdown studies. *Organohalogen Compounds* 60: 69–71.