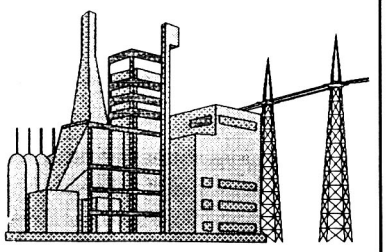
Environmental Indicator Profile Sheet



Indicator Profile No. 26

Industrial Site Compliance Monitoring

Category: **Site Indicators**

Tools Used to Measure Indicator:

- Visual inspections

Description:

NPDES permitting now requires most industrial sites to develop and implement pollution prevention plans and implementation of on-site best management practices. Compliance monitoring is conducted by either industry representatives, regulatory officials or certified inspectors. Monitoring may include pollutant constituent monitoring, as part of a permit condition, or visual inspections to check compliance with the approved and adopted pollution prevention plan.

While pollutant constituent data and compliance with pollution prevention plans documenting the success or failure of a program can be extremely useful, water quality managers may consider other information in assessing management efforts. Examples include: number of staff hours devoted to monitoring, public outreach efforts, pollution prevention training for employees, and documentation of pollution prevention teams.

Utility of Indicator to Assess Stormwater Impacts:

- Can be used to help evaluate the performance of structural and non-structural stormwater BMPs.
- Can help assess the contribution of industry to overall water quality degradation or improvement.
- Can induce public education, support and activism.
- Can solicit political pressure and support regarding planning issues.
- Can be used to determine industrial stormwater management needs, evaluate water quality trends, and target restoration efforts.
- Can help identify areas where technical support or research are needed to help address problems.

Indicator Useful for Assessing:

* Aquatic Integrity of:	
Lakes	○
Streams	○
Estuaries	○
* Land Use Impacts	◖
* Stormwater Mgmt Programs	●
* Whole Watershed Quality	○
* Industrial Sites	●
* Municipal Programs	○

Key:	
Very Useful	●
Mod. Useful	◖
Not Useful	○

Indicator Advantages

* Geographic Range	●
* Baseline Control	●
* Reliable	◖
* Accuracy	◖
* Low cost	●
* Repeatable	◖
* All Watershed Scale	○
* Familiar to Practitioners	◖
* Easy to use & Low training	●

Key	
Very Advantageous	●
Mod. Advantageous	◖
Not Advantageous	○

Cost

See Table 3.3F

Advantages of Method:

- Because the land areas involved are often small, few sampling stations are necessary.
- Several sites may combine efforts in the same area, resulting in the efficient use of monitoring resources.
- Several like industries may combine efforts, across a broad geographic area, to maximize efficiency of resources.
- Pollution reductions may show a correlation with various industrial efforts, enhancing the chances that runoff problems can be solved with relative ease.
- Can contribute significant understanding to pollutant source area problems.

Disadvantages of Method:

- Overall watershed health may be difficult to assess by this method.
- Industrial sites may be reluctant to employ the method for reasons such as cost, time, and concern about regulatory consequences resulting from data revelations.
- NPDES sampling requirements, to date, have not been stringently enforced by permitting agencies and quality assurance/quality control concerns may pose a problem for future compliance monitoring.
- The results and impacts of many techniques may be difficult to assess (e.g., BMPs, pollution prevention, public outreach), and may be a disincentive for industrial site managers to implement them.
- Very few industrial sites have streams, lakes or estuaries on-site.

Case Study: Settine, R.L.; K Burchfield. 1983
Sampling and Analysis of Industrial Benthic Polynuclear Aromatic Hydrocarbons in Industrialized Urban Watersheds. Completion Rept. 1 Oct 82 - 31 Mar 83.

A method is reported for the sampling and analysis that accurately describes the contour and distribution of benthic polynuclear aromatic hydrocarbons of Opossum Creek. The analytical methodology consisted of using fused silica capillary chromatography coupled with selected ion mass spectrometry to identify and quantify areas of high concentration of specific benthic compounds. It is apparent from the 'grid technique' herein reported that this model can be applied for future stream system analysis and would be an extremely reliable aid for engineering decisions with regard to cleanup.

Method References:

- Workshop with industry group: Brosseau, G. 1992. *1992 Summary Report - Vehicle Service Facility Waste Minimization Program.*, Palto Alto Regional Water Quality Control Plant, Uribe & Associates.