

Review of Facility-Specific Data & Evidence and Strategies for Pollution Clean up

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You have just obtained a stack of data about a polluting facility. Assuming the data is accurate, how do you review the data to seek pollution abatement from the facility?

Step 1: Determine whether the data pertains to: 1) ambient environmental quality or; 2) the rate of pollutant releases. Ambient environmental quality refers to levels of pollutants in the air we breathe, the water we drink, the soil we grow food in. They are almost always health-based: what level of a pollutant would not cause a health effect. The rate of pollutant releases refers to the concentration of pollutants in air emissions or wastewater discharges from a facility. They are almost always technology-based: what level of pollutant would a facility emit/dischARGE if it were employing the best available technology. They are usually industry-specific.

Step 2: Find the relevant yardstick for measuring the safety or permissibility of the pollutant levels

First, start by looking for nationally-legislated standards.

So, if the data pertains to **ambient environmental quality**, look for national ambient environmental quality standards. For Thailand, for example, these include:

Thai Ambient Air Quality Standards

http://www.pcd.go.th/info_serv/en_reg_std_airsnd01.html

Thai Drinking Water Quality Standards

http://www.pcd.go.th/info_serv/en_reg_std_water01.html

But, if for example, the data pertains to the **rate of pollutant releases from a facility**, look for national industrial pollutant norms. For Thailand, for example, these include:

Thai Emission Standards for Point Sources (air pollutant releases)

http://www.pcd.go.th/info_serv/en_reg_std_airsnd03.html

Code of Practice Design for Domestic Wastewater Collection and Treatment Systems)

http://www.pcd.go.th/download/en_water.cfm?task=s3#bottom

Second, if no nationally-legislated standards exist, then look for persuasive yardsticks from other countries and international organizations. These include:

For ambient air quality:

U.S. EPA National Ambient Air Quality Standards (for common pollutants only)

<http://www.epa.gov/air/criteria.html>

WHO ambient air quality guidelines values (common pollutants only, but more strict)

<http://www.who.int/mediacentre/factsheets/fs313/en/index.html>

WHO ambient air quality guideline values for Europe (very broad, covers dozens of pollutants)

http://www.euro.who.int/__data/assets/pdf_file/0013/123052/AQG2ndEd_3summary.pdf

California Ambient Air Quality Standards (for common pollutants, but more strict)

<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>

California Office of Environmental Health Hazard Assessment Reference Exposure Levels
(comprehensive and strict)

<http://oehha.ca.gov/air/allrels.html>

For ambient water quality

U.S. EPA Water Quality Criteria (very comprehensive, includes impacts to aquatic life)

<http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm>

WHO Guidelines for Drinking Water Quality (only for water intended for human use)

http://www.who.int/water_sanitation_health/publications/2011/dwq_guidelines/en/index.html

For soil quality

New Jersey Soil Cleanup Criteria

<http://www.nj.gov/dep/srp/guidance/scc/>

Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health

<http://st-ts.ccme.ca/?chems=all&chapters=4&pdf=1>

For industry-specific emission and discharge standards

U.S. EPA Standards of Performance for New Stationary Sources

<http://www.tceq.texas.gov/permitting/air/rules/federal/60/60hmpg.html>

U.S. EPA National Emission Standards for Hazardous Air Pollutants for Source Categories

<http://www.tceq.state.tx.us/permitting/air/rules/federal/63/63hmpg.html>

U.S. EPA Effluent Limitation Guidelines

<http://water.epa.gov/scitech/wastetech/guide/industry.cfm>

IFC Environmental, Health, and Safety Guidelines

http://www1.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/sustainability+framework/environmental%2C+health%2C+and+safety+guidelines/ehsguidelines

European IPPC Bureau Best Available Techniques (BAT) reference documents

<http://eippcb.jrc.es/reference/>

India's Industry Specific Standards

http://www.cpcb.nic.in/Industry_Specific_Standards.php

SOME TRAPS – Be careful about averaging times (short-term versus long-term exposures). Don't compare a 24-sample to an annual average (and vice versa).

SOME TRAPS – Unless the data is for workplace environments, do not use occupational health & safety exposure standards as a yardstick for what is safe for the general public.

Step Three – highlight violations and use available legal tools to seek source-specific abatement

Do elevated levels of pollutants in ambient air quality violate a legal right to a healthy environment?

Do pollutant releases that exceed industrial norms create a right for affected persons to close the facility or impose pollution abatement technology?