



Hudson River PCBs SUPERFUND SITE

Region 2: NJ, NY, PR, VI • 290 Broadway, New York, NY 10007

Quality of Life Performance Standards General Overview

Winter 2011 Update

Highlights

This fact sheet has been created to provide an overview of the objectives, intended use and primary components of the Quality of Life Performance Standards for air quality, odor, noise, lighting and navigation. Information on the performance standards can be found in individual fact sheets and in the Quality of Life Performance Standards document, issued in May 2004 and in the technical memorandum on Phase 2 changes to the Quality of Life Performance Standards issued in December 2010.

Background

The February 2002 Record of Decision (ROD) for the Hudson River PCBs Superfund site requires the development of performance standards that set specific goals and requirements for the project. The quality of life performance standards are intended to reduce the effects of the dredging; sediment processing, transferring and dewatering; and support operations on the nearby community. The U.S. Environmental Protection Agency (EPA) reviews project design plans for consistency with the quality of life performance standards, and oversees cleanup activities to ensure that they are met.



Quality of Life Performance Standards

Air Quality

Various cleanup activities such as sediment handling and processing could result in the release of pollutants into the air.

The performance standard for air quality addresses the potential exposure of both adults and children in the project area to pollutants from the project.



Goal: To minimize the effects on people's health and the environment from air emissions during the cleanup.

Key Components: The standard for air quality has both monitoring and design requirements. Air emissions are routinely monitored to predict the amount of project-related emissions from PCBs and other pollutants such as ozone, nitrogen oxides, sulfur dioxide, carbon monoxide, particulate matter, and volatile organic compounds released from cleanup operations. Since PCBs are the primary pollutant in the sediment, the performance standard sets the following limits for PCBs:

Pollutant	Performance Standard
PCBs (Residential Areas)	0.11 micrograms per cubic meter
PCBs (Commercial/Industrial Areas)	0.26 micrograms per cubic meter

Odors

Odors may be generated by equipment and cleanup activities. Odors are difficult to measure because they vary depending on the concentration of the pollutant and the sensitivity of the person exposed to the odor. One of the most reliable indicators of odor emissions is a smell detected by the human nose. The most likely odor during dredging and sediment processing activities would come from hydrogen sulfide released by decaying plants and other organic material found in the river sediments.

Goal: To minimize odors from the project.

Key Components: The performance standard for odor requires the control of the sources of potential odors, and monitoring hydrogen sulfide in the event of an odor complaint. The performance standard sets the following limit:

Pollutant	Performance Standard
Hydrogen sulfide	0.01 parts per million

Noise

Many of the activities associated with the removal of PCB-contaminated sediments will have the potential to produce noise.

Goal: To minimize the effects of noise from the project on the quality of life in the surrounding communities.

Key Components: The performance standard for noise during Phase 2 requires monitoring the sources of noise from the cleanup at the beginning of any change in operations that could result in increased noise levels compared to compliant noise levels recorded in Phase 1, or in response to complaints. It establishes standards for short-term operations (construction, dredging, and backfilling) and long-term operations (sediment processing/transfer facilities). The standards vary depending upon the time of day (daytime or nighttime) and whether the noise occurs in a residential or commercial/industrial area. The performance standard, which is the level at which action is required, sets the following limits:

Location	Performance Standard
<i>Short-term</i>	
Residential (nighttime)	65 decibels
Residential (daytime)	75 decibels (control level)* 80 decibels
Commercial/Industrial (daytime and nighttime)	80 decibels
<i>Long-term</i>	
Residential (daytime and nighttime)	65 decibels
Commercial/Industrial (daytime and nighttime)	72 decibels

*Control level is the level at which measures are recommended or required

Typical noise levels in the range of the standard include a running refrigerator, normal conversation or summer nocturnal insects (about 65 decibels) to average street traffic or a business office (about 80 decibels).

Lighting

Since the dredging operation will be conducted on a 24-hour basis, lighting systems will be used to illuminate cleanup operations on the river and at the sediment processing/transfer facilities.

Goal: To minimize the effect of lighting from the project on the quality of life in the surrounding communities.

Key Components: The performance standard for lighting requires the monitoring of light levels at the beginning of any operations that could result in increased light levels compared to Phase 1 operations or compared to operations previously implemented in Phase 2, or in response to complaints. The standard varies with the type of area – rural and suburban, urban or commercial/industrial. The performance standard for lighting sets the following limits:

Location	Performance Standard
Rural and suburban residential areas	0.2 footcandle*
Urban residential areas	0.5 footcandle
Commercial/industrial areas	1 footcandle

* A measurement of light.

For comparison purposes, a 60-watt light bulb at 25 feet produces 0.1 footcandle.

Navigation

The river is used by public, commercial, and project-related vessels during the cleanup.

Goal: To avoid unnecessary interference with or the slowdown of vessels unrelated to the cleanup that are within the project area.

Key Components: The performance standard for navigation requires compliance with the applicable sections of federal and state navigation laws, rules and regulations. It also calls for the following requirements, as needed, to meet the goal of the standard:

- Evaluating vessel movement,
- Restricting access to work areas and providing safe access around them,
- Keeping mariners informed about scheduled project work that might affect vessel movement,
- Establishing temporary aids to navigation such as signs and buoys to maintain safe and efficient vessel movement,
- Scheduling project activities to consider vessel movement, and
- Using a vessel tracking system to assist with safe passage of vessels through the project area.



In addition, there is routine monitoring of vessel traffic, regular outreach to mariners, and follow up on complaints. EPA developed the navigation performance standard in consultation with the New York State Canal Corporation (NYSCC) and other appropriate agencies.

Compliance With the Performance Standards

Compliance with the quality of life performance standards is achieved through the evaluation of potential effects during the design and by meeting the following requirements during the cleanup:

- Monitoring to measure the sources of potential emissions/effects on people and the environment. Monitoring instruments are placed between the potential source of the quality of life concern and the potentially affected area.

Complaint evaluation and resolution includes communications with individuals raising complaints, investigations of the complaints, and appropriate responses such as monitoring or controls to address the issues of concern. The complaint evaluation and resolution process is described in the Remedial Action Community Health and Safety Plan and is overseen by EPA.

- Mitigation and contingencies are carried out during the cleanup to prevent and/or minimize potential effects on people and the environment.
- Reporting and notification is required to keep EPA and other appropriate agencies informed regarding compliance.

The quality of life performance standards are based on well-established regulatory, environmental, and scientific criteria. In the Record of Decision, EPA identified performance standards for air quality and preliminary standards for noise. EPA has developed these standards in consultation with the state and the federal Natural Resource Trustees. EPA evaluates the methods and frequency of sampling and monitoring throughout the project and considers any necessary changes when appropriate.

EPA works with local officials and communities through various stakeholder groups, including the Community Advisory Group (CAG), to keep them up-to-date on compliance with the performance standard. EPA and/or personnel responsible for day-to-day operations will provide updates through verbal and written notifications and regularly scheduled stakeholder and CAG meetings.

 **For More Information**

The Quality of Life Performance Standards and related fact sheets are available at the information repositories located in Glens Falls, Ft. Edward (Hudson River Field Office), Ballston Spa, Albany, Poughkeepsie, and New York City (EPA Region 2 offices) and in Edgewater, New Jersey. Electronic

versions can be found on the EPA project Web site (www.epa.gov/udson). Copies are also available in print and on CD-ROM by calling the Hudson River Field Office. Visit, call or write to the Hudson River Field Office at the address below or log on to www.epa.gov/udson.



Visit, call, or write to the Hudson River Field Office at the address below or log on to www.epa.gov/udson.

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