

# The Occupational Safety and Health Administration's Response to the World Trade Center Attack

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Immediately following the attacks of September 11, the US Department of Labor's Occupational Safety and Health Administration (OSHA) prepared to take on a critical, new role—one that thrust the agency into the most extensive emergency response operation in its 30-year history.

In line with the Federal Response Plan and the National Contingency Plan, OSHA determined that it could be most effective in providing assistance and consultation to achieve its primary mission—prevent further tragedy during the rescue and recovery work at the World Trade Center and later at the Staten Island Landfill. It was apparent that workers engaged in the response and recovery operations would not be working in a normal industrial setting and that the site was not a typical construction or demolition project. Employees at the WTC needed immediate protection from hazards—the scope and severity of which were unpredictable, at best.

A complicating factor in the agency's response was the fact that OSHA's Manhattan area office, located in Building 6 of the WTC, was destroyed. Staff were all successfully evacuated, but records, equipment, and other materials were completely gone. OSHA went to work immediately, devising a response strategy at the agency's regional office located about a mile from the disaster. Within hours of the attack, personnel were on site to conduct preliminary hazard assessment and determine how best to assist emergency responders while protecting the rescue/recovery workers.

OSHA's primary responsibilities at the WTC site were to conduct personal air monitoring to characterize exposures,

distribute, fit-check, and fit-test respirators along with other personal protective equipment, and conduct safety monitoring. Over 1,000 OSHA employees worked 24 hr a day, 7 days a week with other federal, state, and local agencies as well as safety professionals from all contractors and unions to help ensure the safety and health of workers involved in the rescue effort. At the height of the recovery effort, 75 OSHA staff worked at the site each day. During the course of the operation, OSHA staff provided over 15,000 8-hr tours.

The Staten Island landfill operation, consisting of the sorting and disposal of debris from the collapsed site, began almost immediately. OSHA began safety and health evaluations and continued sampling throughout the course of the operation.

Since September 13, OSHA has taken over 6,500 air and bulk samples for asbestos, lead, and other heavy metals, silica, and various organic and inorganic compounds; analyzed the samples for over 81 analytes; and conducted more than 24,000 analyses to evaluate worker exposures and ensure worker safety. Personal sampling was conducted around the clock each day by industrial hygienists and supplemented by bulk samples, area samples, and direct read instruments. Based on the initial visual hazard assessment and with knowledge of air contaminants identified after the 1993 WTC bombing, OSHA immediately began sampling for asbestos and silica. Sampling was also conducted in areas surrounding the WTC site and, in particular, Manhattan's Financial District.

During the course of sampling, employees who provided a mailing address were notified, in writing, of their personal sampling results. Any employees found to be overexposed were encouraged to seek medical evaluation. Over 2,900 employees were notified by OSHA of their personal sampling results and given a telephone number for follow-up questions. Summaries of all sampling results were shared with contractors, their subcontractors, union representatives, and all other regulatory agencies including the New York

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City and New York State Departments of Health, EPA, NIOSH, the Office of Emergency Management, Department of Design and Construction, NY Police and Fire Departments, and FEMA, and routinely posted on OSHA's website.

Since day one, OSHA consistently recommended that workers use appropriate respiratory protection as well as other personal protective equipment. To support the rapid and safe deployment of response personnel, OSHA assisted response organizations in respirator fit-checking. At the peak of the fit-checking activity, the agency was assisting 4,000 responders per day. During the course of the project, OSHA distributed more than 131,000 respirators, 11,000 hard hats, 13,000 safety glasses and goggles, and more than 21,000 protective gloves. Over 5,500 quantitative fit-tests were performed.

During the course of the recovery project, OSHA's construction safety specialists provided technical assistance and consultation to help identify potential hazards associated with heavy equipment such as cranes (as many as 32 at one point on the site), excavators, grapplers, and dump trucks. Safety hazard trends were evaluated and communicated to all contractors to assist in preventing unsafe acts. Over 9,000 hazards were identified and corrected during the course of the recovery.

OSHA staff assisted in developing a site orientation training program, required for all entering the WTC site which provided task specific information to familiarize workers with potential hazards, PPE requirements, and overall safety rules. Over 90 site workers, including contractor managers and union stewards received a mandatory OSHA 10-hr construction training course provided by OSHA staff.

Demonstrating a leadership role at both the World Trade Center and Staten Island landfill, OSHA initiated Emergency Project Partnership Agreements with the Co-Incident Commanders that promoted cooperation and unified support for safety and health at the sites among contractors, employees, employee representatives and Federal, State, and City agency representatives participating in the recovery. The cornerstone of the partnerships was the development, implementation, and compliance with the Environmental Safety and Health Plan (ESHP), which set forth strategies and objectives to protect the workers on site that went beyond OSHA standards. Each partner exerted leadership within their own authority and developed a cooperative, focused working relationship that fostered mutual trust and respect for each organization's respective role in the WTC project.

OSHA staff were involved in the initial development and final revisions to the site ESHP. The benefits of the ESHP included *immediate* abatement, worker involvement, and other enhanced employee protections such as fall protection over six feet, respiratory protection, and emphasis on confined space safety. Over 9,000 hazards were identified and corrected during the course of the recovery. There were *no fatalities during the course of the recovery operation at either the WTC or Staten Island.*

To promote greater communication and cooperation among workers, contractors, and governmental agencies, a two-tiered labor-management health and safety committee was established. The Leadership Oversight Committee met once a month and was comprised of the chief elected officers of the unions present, key staff from the prime contractors at the site, as well as representatives from the General Contractors Association, Contractors Association of Greater New York, OSHA, and NY City Department of Design and Construction. A Site Committee that included safety and operations personnel from the same unions, contractors, and agencies met daily. Over 2,000 building and construction trade workers were covered by the partnership.

The partnership agreements included a provision addressing data collection and there are several remarkable statistics worth mentioning. OSHA calculates that in over 3.7 million work hours, only 57 non-life threatening injuries were recorded at the WTC site. The Lost Workday Injury Rate for the site is 3.1. The closest comparison that can be made is with specialty construction, which includes demolition, that has an LWDI rate of 4.3. Staten Island recorded just one injury in over 1.7 million work hours with an LWDI rate of 0.1. These figures reflect the cooperative effort of all participants in the WTC and Staten Island projects and the seriousness of their commitment to safety and health.

The challenge to make certain that the events of September 11 claimed no more victims in terms of fatalities, serious injuries, or illness was met because due largely to the cooperative, coordinated effort from all partners involved at this site—potentially the most dangerous worksite in America. The tragedy at WTC presented obstacles on a scale unlike any ever faced in the 30 years of the Agency's existence. The experiences gained have already better prepared OSHA for any future incidents and we stand ready to ensure that American workers receive the best safety and health protections available.

OSHA will issue a public report on their activities and lessons learned at WTC and Staten Island within the year.

## LESSONS LEARNED

- Successful evacuation of the Manhattan OSHA area office underscores the need for a prepared and practiced emergency evacuation plan in place.
- A regional response plan, prepared in advance of a disaster, is critical. A logistics checklist should be part of the overall plan and should include, at a minimum, emergency contact telephone numbers and names of local authorities and Federal and State agencies; assignments to staff for the first 12 hours following the disaster; administrative assignments, including needed equipment, locations for personnel, transportation, and a clear chain of command.

- Emergency response partnerships—with clear lines of authority for all functions at the site and special emphasis on safety and health—should be considered as early as possible to ensure effective site management.
- OSHA should continue to work pro-actively with local uniformed services to assist in preparing for possible future events in which exposures to occupational hazards could occur.
- Top-level executive commitment and involvement from all partners (Federal, State, and City agencies, labor and management) are critical to the success of the project.