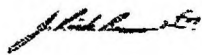




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460
June 16, 2003

MEMORANDUM

SUBJECT: Excerpts from Draft Evaluation Report:
EPA's Response to the World Trade Center Collapse: Lessons Learned
Assignment No. 2002-0000702

FROM: 
Director for Program Evaluation, Air Quality Issues

J Ri

TO: Bruce Rottner
Acting Deputy Director, Environmental Health and Safety Services

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Attached are excerpts from a draft evaluation report regarding the Environmental Protection Agency's (EPA's) response to the World Trade Center collapse, conducted by the EPA Office of Inspector General (OIG). These excerpts contain information about your department. These excerpts are subject to revision by the OIG and, therefore, will not necessarily appear in the final report as they are now worded.

These excerpts are being provided to you so that you may have the opportunity to comment on the factual accuracy of the information and provide any additional information or documentation you may want us to consider. We expect to issue our final report in July, 2003. In order for us to incorporate your comments into the final report, we request that you provide your feedback by June 27, 2003.

If you have any questions, please contact me (919-541-5747) or Chris Dunlap (919-541-1029).

Thank you for your assistance.

Excerpts from Draft Report

Qualification Regarding Our Observations and Conclusions

DEP
Not in loop

The New York City Department of Design and Construction (NYCDDC) was responsible for demolition and debris removal at the site. NYCDDC awarded four contracts for demolition and removal, as well as a contract for wetting and misting operations at the site. We contacted an NYCDDC official about demolition and debris removal operations at the site and requested copies of the statements of work for these contracts in order to determine what, if any, Asbestos NESHAP work practices were required by these contracts. Although we made multiple requests, we were not provided with copies of these statements of work. Accordingly, our review and conclusions were limited since we were unable to review these key documents.

NESHAP Notification Requirements Not Followed

EPA and New York State asbestos NESHAP regulations require that a notification be filed even in emergency situations. Notification of a NESHAP demolition and removal operation was not filed for the WTC demolition and removal. City officials told us that the City's Asbestos Control Program rules did not apply because of the emergency situation. Further, a NYCDDC official told us that the Port Authority had removed accessible asbestos-containing material from the WTC buildings prior to September 11. Consequently, in his view asbestos was not a primary concern in the demolition.

DEP Not
in loop or NESHAP
↓
does not apply

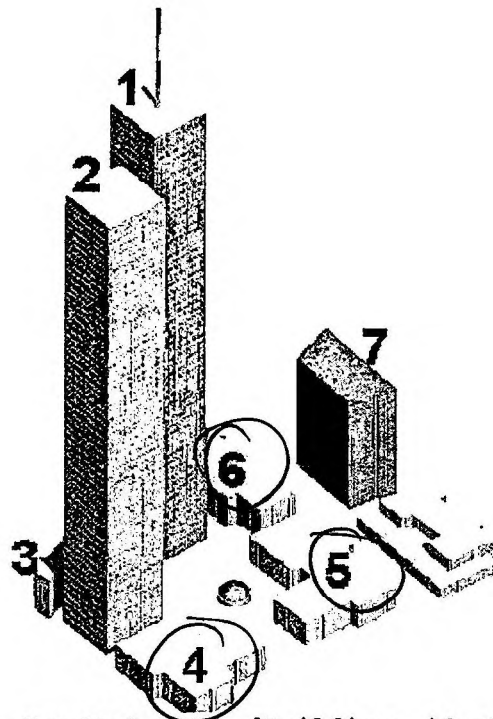
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Demolition of Damaged Buildings

NYCDDC was responsible for the demolition of the damaged WTC buildings and removal of the demolition debris. In addition to the WTC towers, WTC 3 collapsed from tower debris and WTC 7 also collapsed after burning unchecked for approximately 7 hours. The remaining three buildings in the WTC Complex were all significantly damaged. According to an EPA on-scene coordinator, all parts of the damaged buildings were considered in danger of collapse, although some areas were deemed accessible after inspections by structural engineers. The following table summarizes the condition of the WTC buildings after September 11.

For Emergency Personnel only

Seven Buildings Comprising the WTC Complex



Source: New York Times [Buildings identified in table 4-1.]

Table 4-1: Condition of WTC

Buildings

Building	Condition
WTC 1 - North Tower	Complete collapse
WTC 2 - South Tower	Complete collapse
WTC 3 - Marriott Hotel	Complete collapse
WTC 4 - South Plaza	Partial collapse

WTC 5 - North Plaza	Partial collapse
WTC 6 - U.S. Customs	Partial collapse
WTC 7	Complete collapse
Source: New York City DoB/DDC/Structural Engineers Association of New York Cooperative Building Assessment, November 7, 2001.	

The demolition of all WTC complex buildings to ground level was completed by late December 2001. WTC 4 and WTC 5 were brought down by wrecking balls. This method of bringing down a building had been outlawed in New York for over two decades, but an exception was granted under the special circumstances that existed after the terrorist attack. WTC 6 was brought down with "special remote cutting shears." *gippers*

Both NYCDDC and OSHA officials told us that the WTC site was under continuous dust suppression. OSHA officials told us that this dust suppression was very successful, and that two minutes after demolition you could see across the space where the buildings had been. They further stated that it would have been too dangerous to send abatement contractors into WTC 4, WTC 5, or WTC 6 to remove asbestos-containing material before demolition.

Treatment of Asbestos-Containing Materials

Both NYCDDC and EPA officials told us that when asbestos-containing material (e.g., pipe wrapping, steel insulation) was encountered during the removal, it was tested and treated in accordance with asbestos abatement procedures. According to the NYCDDC official, the majority of the asbestos-containing material was encountered when removing the remnants of the basement levels of WTC 6 below the slurry wall.

EPA Situation Reports confirmed the NYCDDC official's statement about asbestos abatements at the site. The reports recorded instances where asbestos was found during debris removal and asbestos abatements performed. For example, the EPA May 23, 2002, situation report noted that:

Twelve (12) bulk asbestos samples were taken in the B1, B2, B3, levels of (WTC) Building 6. The samples were taken from sprayed on insulation at the request of NYC DOI. Of the twelve samples, nine (9) should (sic) results were in excess of 1% Chrysotile asbestos, the results ranged from 1.30% to 30.80%. The three samples that were not above 1% were detect for Chrysotile asbestos. These samples were taken from wind braces and girders that were suspected to contain asbestos. The samples were split samples with Bovis's asbestos abatement contractor. Results of the contractor samples are not yet available.

The situation reports also noted the presences of asbestos-containing material and the operation of another abatement project in April 2002. According to the April 5, 2002, Situation Report, bulk testing showed that one sample of the pipe wrap that was being removed as part of this abatement contained 66 percent amosite asbestos.

Removal of Debris From Site

Particularly in the weeks immediately following the disaster, trucks hauling debris from the site did not consistently stop to be wetted down before leaving the site. As a result, assistance was obtained from the New York Police Department to ensure that trucks stopped at the wash stations before leaving the site. Even after getting Police Department assistance to ensure that trucks stopped at the washing station, EPA Situation Reports indicated that the trucks were not stopping long enough to get completely wetted down. EPA Situation Reports indicated that as late as October 13, 2001, this was still a problem.

NY5
DEC

Similar observations were reported in an October 6, 2001, report funded by the National Institute of Environmental Health Sciences, which discussed worker safety issues at the WTC. The report noted that:

Vehicles leaving the site with debris, either dumps or lowboys with large sections of steel beams, are not deconned (decontaminated) and the dumps do not have covers over the loads. As a consequence, potentially hazardous dust and debris is tracked off site or is blown from the loads during transit.

However, certain requirements for transporting debris from the site were suspended by the Governor of New York on October 9, 2001. Executive Order No. 113.29 temporarily suspended regulations regarding the transportation and handling of certain solid waste resulting from the WTC disaster. The order applied to persons working at the site under the supervision of New York State or New York City government officials and suspended requirements for these persons to:

\$ Obtain permits for the collection, transportation, and delivery of regulated waste to staging areas or disposal locations owned or operated by the City of New York, and

\$ Comply with hazardous waste management standards at the site, during the transportation of waste from the disaster site to staging areas or disposal locations owned by the City of New York, and in connection with the temporary storage of such waste at these staging area or disposal locations.