NYC 9/11 Public Portal Document

FINAL (September 27, 2001)	ATSDR, CDC, EPA, OSHA Environmental Assessment Workgroup		Asbestos Action Levels for World Trade Center Response
Action Level (f/cc) & Analysis Method	General Public/Recommendations[1]	Basis	Comments
NYC Background[2] PCM/PCMe[3] (see footnotes 2 and 3)	• No restriction on access to any area.	Lowest attainable cancer risk	• Remediation goal is to achieve background levels. • Considered AHERA guidance for schools which requires that indoor air levels for schools, remediated for asbestos, should be similar to local outdoor air levels for schools.
NYC Background to 0.01 PCM/PCMe[3]	• No restriction on access to streets and public/ commercial building; continue to monitor • Evaluate to determine if long-term access is acceptable; evaluate trends over months. ■ Identify source ■ Take action, as practical, to reduce levels to background	AHERA standards (40 CFR 763)	No significant cancer risk for short-term occupancy for residential and school buildings.
0.01 - 0.1 PCM/PCMe[3]	• Continue to monitor; consider the need for additional sampling sites. • If air levels are consistently between 0.01 to 0.1 f/cc, evaluate the need for advisories, the need to limit access and the need for dust suppression..	Lowest limit set at 1/10 PEL/REL/TLV	• Long-term exposures may increase cancer risk in the general public. • Unlike workers the general population, includes children and sensitive persons, does not receive exposure monitoring and does not participate in annual health screening
> 0.1 PCM/PCMe[3]	• Evaluate the need to restrict general public access. • Continue to monitor; consider the need for additional sampling sites..	Unacceptable cancer risk following long-term exposure	General public should not be exposed to levels suspected of adverse health effects upon long-term exposure.
Action levels (f/cc) for workers involved in emergency response and recovery activities	Disaster Response and Recovery Workers (follow applicable OSHA standards)	*Basis*	*Comments*
0.1 PCM only	• Respiratory protection required for workers, based on an 8 hour time weighted average (TWA) of exposure of 0.1 PCM. Longer shift work, i.e., lower levels of exposure (i.e., the proportional maximum exposure for a 12-hour shift is 0.07 f/cc PCM).	PEL	Value, 0.1 f/cc based on an eight hour time weighted average, is the Occupational Safety and Health Administration's (OSHA) Permissible Exposure Limit for asbestos, as specified in the OSHA Construction Industry Regulation for Asbestos, 29 CFR 1926.1101.
1.0 PCM only	• The maximum allowable level for workers average over 30 minute period (OSHA short term exposure level). • PPE required above 1.0 f/cc PCM.	STEL	Value, 1.0 f/cc measured over a 30-minute period, is the Occupational Safety and Health Administration's (OSHA) Short-Term Exposure Limit for asbestos, as specified in the OSHA Construction Industry Regulation for Asbestos, 29 CFR 1926.1101.

1. General public includes adults and children not directly involved in emergency response and recovery activities. 2. Background levels for NYC being determined. 3. PCM equivalents (PCMe) is determined using TEM analysis and counting fibers > 0.3 μm in diameter and > 5 μm in length. PCMe should be determined using consistent methods to provide comparable concentrations. If PCM is exceeded, may need to determine PCMe using TEM. Use professional judgement to determine if PCMe is needed by evaluating the frequency and magnitude of exceedance, size of geographic area involved, and trends in data.

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