

#### Presented By: Environmental Education Associates, Inc. www.environmentaleducation.com

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DAY 1		Date:	
Time Allotment	Торіс	Method(s) of Instruction	Instructor(s)
15 Minutes	Registration/Introduction		
30 Minutes	History of Use: (Lecture)	Manual Section 1, Video: Asbestos: A Matter of Time (U.S. Bureau of Mines, 1959)	
30 Minutes	<ul> <li>Identification of Asbestos: (Lecture)         <ul> <li>Types and physical characteristics of asbestos including fiber size, aerodynamic characteristics and appearance;</li> <li>Common uses and applications for asbestos containing products</li> </ul> </li> </ul>	Manual Section 2, PowerPoint Presentation	
60 Minutes	<ul> <li>Health Effects of Asbestos Exposure: (Lecture)</li> <li>Factors affecting disease development including: properties of asbestos; exposure pathways; concentration and duration of exposure and natural defenses;</li> <li>Clinical signs of exposure based on visible changes in x-rays e.g.: pleural plaques and fibrosis;</li> <li>Asbestos-related diseases including definitions and concepts of risk, latency, symptoms, diagnosis and treatment;</li> <li>Health risks to family members of asbestos workers;</li> <li>Synergism between smoking and asbestos exposure and lack of safe exposure level</li> </ul>	Manual Section 3, PowerPoint Presentation	
15 Minutes	Break		
60 Minutes 30 Minutes	<ul> <li>Current Federal, State and Local Regulations: (Lecture) <ul> <li>OSHA (29 CFR 1926.1101, 29 CFR 1910.134, 29 CFR 1910.1001, 29 CFR 1910.1200)</li> <li>EPA (AHERA, NESHAP)</li> <li>New York State (12 NYCRR Part 56)</li> <li>NYS Applicable Variances</li> </ul> </li> <li>Employee PPE - Respirators: (Lecture)</li> </ul>	Manual Section 4, Handouts: Referenced Regulations, PowerPoint Presentation Manual	
	<ul> <li>Classes and characteristics of respirator types;</li> <li>Limitations of respirators and their proper selection, inspection, donning, maintenance and storage</li> <li>Methods for positive and negative user seal</li> </ul>	Section 5, PowerPoint Presentation	



DAY 1 (Cont	.)	Date:	
Time Allotment	Торіс	Method(s) of Instruction	Instructor(s)
60 Minutes	<ul> <li>checks;</li> <li>Qualitative and quantitative fit testing;</li> <li>Variability between field and laboratory protection and factors that alter respirator fit e.g.: facial hair</li> <li>Components of a proper respiratory protection program</li> </ul>		
30 Minutes	<ul> <li>Employee PPE - Protective Clothing: (Lecture)</li> <li>Selection, use and handling of personal protective clothing: including disposable and non-disposable clothing, purpose, donning, removal, storage, handling and disposal;</li> <li>Uses and limitations of PPE e.g.: eye protection, hard hats, hoods, gloves, boots and booties</li> </ul>	Manual Section 5, PowerPoint Presentation	
45 Minutes	Other Safety Hazards: (Lecture) <ul> <li>Electrical Hazards;</li> <li>Heat related conditions;</li> <li>Other air contaminants;</li> <li>Fire and explosion hazards;</li> <li>Scaffold and ladder hazards and proper use;</li> <li>Confined spaces;</li> <li>Slips, trips and falls</li> </ul>	Manual Section 11, PowerPoint Presentation	
15 Minutes	Break		_
30 Minutes	<ul> <li>Summary of Abatement Control Options: (Lecture)</li> <li>Removal, encapsulation, enclosure, repair and an operations and maintenance program</li> </ul>	PowerPoint Presentation	
60 Minutes	<ul> <li>Overview of Abatement Projects: (Lecture)</li> <li>Abatement as a portion of a renovation project;</li> <li>Notification of other contractors on a multi- employer site</li> </ul>	Manual Section 20	

DAY 2 Date:			
Time Allotment	Торіс	Method(s) of Instruction	Instructor(s)
30 Minutes	<ul> <li>Role of Other Consultants: (Lecture)</li> <li>Development of technical specification sections by industrial hygienists or engineers;</li> <li>Multidisciplinary team approach to abatement design</li> </ul>	Manual Section 22	
90 Minutes	<ul> <li>Safety System Design Specifications: (Lecture)</li> <li>Design, construction and maintenance of containment barriers and decontamination enclosures;</li> <li>Positioning of warning signs;</li> <li>Electrical and ventilation system lock-out;</li> <li>Minimizing fiber release;</li> <li>Work area entry/exit procedures;</li> </ul>	Manual Sections 6-10, PowerPoint Presentations, Glove bag Demonstration	



DAY 2 (Cont	t.)	Date:	
Time Allotment	Торіс	Method(s) of Instruction	Instructor(s)
	Use of wet methods;		
	Use of negative pressure exhaust ventilation		
	equipment;		
	Use of HEPA vacuums;		
	<ul> <li>Proper clean-up and disposal;</li> </ul>		
	Encapsulation, enclosure and repair work		
	practices;		
	<ul> <li>Use of glove bags and a demonstration of glove</li> </ul>		
	bag use;		
	Techniques for initial cleaning of the work area		
15 Minutes	Break	1	1
30 Minutes	Fiber Aerodynamics and Control: (Lecture)	Manual	
	Aerodynamic characteristics of asbestos fibers;	Section 9,	
	<ul> <li>Importance of proper containment barriers;</li> </ul>	PowerPoint	
	Settling time for asbestos fibers;	Presentation	
	• Wet methods;		
	Aggressive air monitoring following abatement;		
	Aggressive air movement and negative pressure		
45 Minutes	ventilation as a clean-up method	Manual	
45 Minutes	Occupied Buildings: (Lecture)	Section 26,	
	<ul> <li>Special design considerations required for occupied buildings;</li> </ul>	PowerPoint	
	<ul> <li>Education of occupants;</li> </ul>	Presentation	
	<ul> <li>Additional monitoring recommendations;</li> </ul>	Tresentation	
	<ul> <li>Staging work to minimize exposures;</li> </ul>		
	<ul> <li>Scheduling of renovations to minimize exposures,</li> </ul>		
60 Minutes	Lunch		
30 Minutes	Designing Abatement Solutions: (Lecture)	Discussion,	
	<ul> <li>Discussions of removal, enclosure and</li> </ul>	PowerPoint	
	encapsulation methods;	Presentation	
	Asbestos waste disposal		
45 Minutes	Budgeting/Cost Estimation	Manual	
	<ul> <li>Development of cost estimates;</li> </ul>	Section 25,	
	Present costs of abatement vs. future operations	PowerPoint	
	and maintenance costs;	Presentation	
	Setting priorities for abatement projects to reduce		
	costs		
30 Minutes	Writing Abatement Specifications: (Lecture)	Manual	
	Prescriptive vs. performance specifications;	Section 23,	
	Design of abatement in occupied buildings;	PowerPoint	
	<ul> <li>Modification of guide specifications to a particular building:</li> </ul>	Presentation	
	building;		
	Worker and building occupant health/medical     considerations:		
	considerations;		
	<ul> <li>Replacement of ACM with non-ACM;</li> <li>Post abatement clearance and air monitoring of</li> </ul>		
	<ul> <li>Post abatement clearance and all monitoring of work area;</li> </ul>		
	<ul> <li>Preparation of and need for written project design</li> </ul>		
15 Minutes	Break	1	1



DAY 2 (Cont.)		Date:	
Time Allotment	Торіс	Method(s) of Instruction	Instructor(s)
45 Minutes	Writing Abatement Specifications: (Lecture) Cont.	Manual Section 23, PowerPoint Presentation	
45 Minutes	<ul> <li>Final Clearance Process for Re-occupancy: (Lecture)</li> <li>Discussion of the need for a written sampling rationale for aggressive final clearance;</li> <li>Requirements of a visual inspection;</li> <li>The relationship of visual inspection to clearance air sampling</li> </ul>	Discussion, Handout: ASTM E-1368	

DAY 3	Date:		
Time Allotment	Торіс	Method(s) of Instruction	Instructor(s)
30 Minutes	<ul> <li>Replacement: (Lecture)</li> <li>Replacement of ACM with asbestos-free substitutes</li> </ul>	Manual Section 23	
60 Minutes	<ul> <li>Preparing Abatement Drawings: (Lecture)</li> <li>Significance and need for drawings;</li> <li>Use of as-built drawings as base drawings;</li> <li>Use of inspection photographs and on-site reports;</li> <li>Methods of preparing abatement drawings;</li> <li>Diagramming containment barriers;</li> <li>Relationship of drawings to specifications;</li> <li>Problems related to abatement drawings</li> </ul>	Manual Section 24, PowerPoint Presentation	
15 Minutes	Break		
45 Minutes	<ul> <li>Employee Personal Protective Equipment and Clothing: (Hands-on)</li> <li>Practice selecting, donning, doffing, handling, storing and disposal of protective clothing;</li> <li>Practice selecting, donning, doffing, handling, maintaining and storing respirators;</li> <li>Perform positive and negative user seal checks</li> </ul>	Hands-on	
60 Minutes	<ul> <li>Field Trip: (Hands-on)</li> <li>Visit an abatement site or other suitable building site;</li> <li>On-site discussions of abatement design and rationale for the concept of functional spaces;</li> <li>Building walk-through inspection followed by discussion</li> </ul>	Hands-on	



DAY 3 (Cont	t.)	Date:
30 Minutes	Contract Preparation and Administration: (Lecture)	Manual
		Section 14
45 Minutes	Legal Liabilities/Defenses: (Lecture)	Manual
	<ul> <li>Insurance and bonding;</li> </ul>	Section 14,
	Hold-harmless clauses	PowerPoint
	<ul> <li>Use of contractor's liability insurance;</li> </ul>	Presentation
	Claims made vs. occurrence policies	
30 Minutes	Course Review	Handout:
		Asbestos
		Review
		Questions,
		Student Q&A
15 Minutes	Break	
90 Minutes	Course Exam	