U.S. General Services Administration
Rocky Mountain Region 8 Public Buildings Service
Office of Facilities Management - Industrial Hygiene Group
One Denver Federal Center, Building 41
Denver, CO 80225

GSA ASBESTOS ABATEMENT THIRD PARTY CLEARANCE TESTING REQUIREMENTS STATE OF SOUTH DAKOTA

1. PROJECT OBJECTIVES

   1.1. The Contractor shall provide labor, materials, and equipment necessary to perform the onsite clearance testing of the asbestos abatement activities, to include visual inspection and air sampling.

   1.2. All work shall be conducted by a qualified industrial hygienist from an asbestos consulting firm that is independent of the asbestos abatement contractor.

2. PERMITTING/REGULATIONS/CODES

   2.1. Contractor shall be responsible for obtaining all necessary local, state, and federal permits and licenses and payment of related fees.

   2.2. Contractor shall comply with all applicable federal, state, and local regulations, guidance documents and standards including but not limited to:

      2.2.1. Occupational Safety & Health Administration (OSHA) Asbestos in Construction Standard - 29 CFR 1926.1101

      2.2.2. OSHA Asbestos in General Industry Standard – 29 CFR 1910.1001

      2.2.3. OSHA Respiratory Protection Standard - 29 CFR 1910.134

      2.2.4. U.S. Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) - 40 CFR 61 Subpart M

      2.2.5. EPA Asbestos Hazard Emergency Response Act (AHERA) - 40 CFR 763

      2.2.6. Federal Management Regulation, Real Property, Safety and Environmental Management, Asbestos - 41 CFR 102-80.15

      2.2.7. U.S. Department of Transportation Hazardous Material Transportation Regulations – 49 CFR 171 and 172

      2.2.8. South Dakota Emission Standards for Asbestos Air Pollutants - Administrative Rules of South Dakota (ARSD) 74:36:08:02

      2.2.9. South Dakota Asbestos Control Program - ARSD Article 74:31

      2.2.10. ASTM Standard E1368-14 – *Standard Practice for Visual Inspection of Asbestos Abatement Projects*

      2.2.11. EPA Guidance Document – *Guidance for Controlling Asbestos-Containing Materials* (EPA 560/5-85-024)

      2.2.12. National Institute for Occupational Safety and Health (NIOSH) Method 7400 – *Asbestos and Other Fibers by Phase Contrast Microscopy (PCM)*, Current Issue.

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2.3. All work shall comply with codes and standards applicable to each type of work through the course of this project. The contractor shall also comply with the requirements of GSA BuildGreen standards, and PBS P-100.

3. VISUAL CLEARANCE INSPECTION REQUIREMENTS

3.1. Visual inspections of the work area(s) shall be conducted in accordance with Section 6.4.1 of the EPA *Guidance for Controlling Asbestos-Containing Materials* (EPA 560/5-85-024) and the Completeness of Removal inspection in ASTM Standard E1368-14 *Standard Practice for Visual Inspection of Asbestos Abatement Projects*.

3.2. Final visual inspections shall be completed upon conclusion of the asbestos abatement activities to ensure the effectiveness of the controls, confirm job completeness, to ensure that the work area is visibly clean of debris, and to ensure the abatement work methods complied with applicable regulations and GSA protocols.

3.3. Final visual inspections shall include the entire work area(s) including all surfaces, ceilings, walls, flooring, decontamination units, remaining plastic sheeting / critical barriers, etc. looking for debris from any source, residue on surfaces, dust, or other matter.

3.4. If the area does not pass visual inspection, the abatement contractor shall be directed to re-clean the area at no additional cost, and the process will be repeated until clearance is achieved.

4. FINAL AIR MONITORING CLEARANCE REQUIREMENTS

4.1. Where feasible, five (5) aggressive air clearance samples per containment / regulated area shall be collected. For smaller work areas and multiple glove bags in a single functional space, please consult with the GSA OFM Industrial Hygiene Group for clearance sample requirements.

4.2. Air samples collection methodology shall be in accordance with the NIOSH 7400 PCM method.

4.3. Air samples shall be collected on open-faced, 0.8-micron, 25-millimeter (mm), mixed cellulose ester (MCE) filter air sampling cassettes using electric high-volume sampling pumps.

4.4. Air sampling cassettes shall be placed on a sampling stand to achieve cassette heights between 3 to 5 feet above floor level and with the cassette opening orientated downward at a 45° angle.

4.5. Each air sampling pump shall be calibrated with the cassette in-line with a rotameter before and after air sampling; adjusting the flow as necessary to obtain the desired flow rate. Rotameters shall be properly calibrated against a primary standard.

4.6. Sample flow rates shall be approximately 10 liters (L) per minute.

4.7. A minimum sample volume of 1,200 liters (L) per sample shall be collected.

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4.8. An appropriate number of field blanks shall be used pursuant with the NIOSH Method 7400.

4.9. Asbestos air sample analysis shall be conducted either onsite by a NIOSH 582 trained microscopist participating in the American Industrial Hygiene Association Proficiency Analytical Testing (PAT) Program for PCM or performed by an American Industrial Hygiene Association (AIHA) and/or National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) -accredited analytical laboratory.

4.10. Final clearance sample results shall be compared to the AHERA PCM clearance criteria threshold of 0.01 fibers per cubic centimeter (f/cc).

4.11. Work area shall not be cleared or abatement contractor released until all final air clearance samples collected are less than the clearance criteria. If clearance samples fail, please contact GSA Project Manager and Regional Industrial Hygienist for direction. The regulated area may have to be re-cleaned or re-cleared or samples reanalyzed by TEM.

5. DELIVERABLE REQUIREMENTS

5.1.1. The third-party IH shall provide a written letter report including the following at a minimum.

5.1.2. Written report narrative

5.1.2.1. A summary of the abatement activity including the building, location within the building, type of asbestos material, quantity removed, and number and types of containments / regulated work areas.

5.1.2.2. A description of sample collection, including number and types of samples collected, and samples analysis methodologies.

5.1.2.3. Observations, findings, and conclusions.

5.1.3. Table of final air clearance results

5.1.3.1. A table including sample identification, location, and result compared to clearance thresholds at a minimum.

5.1.4. Attachments

5.1.4.1. Air sample collection data sheets or laboratory analytical data, with chain-of-custody documentation and lab accreditation

5.1.4.2. Copies of firm/personnel certifications

5.1.4.3. Daily logs, clearance checklists, and all other field paperwork

5.1.4.4. Figure depicting containment configuration (i.e., critical barriers, NAM, exhaust, decon/waste loadout) and air sample locations)

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5.1.4.5. Photographic log