INSTRUCTIONS AND SUPPLEMENTAL CONDITIONS

The offeror shall not alter the solicitation or any component thereof (i.e. drawings, etc.). The Government's version of the solicitation and accompanying components take precedence if a discrepancy arises between the version issued by the Government and the signed documents submitted by the offeror.

Project Title:	**USAO Electric and Outlets Project**
Quote/Proposal Due By:	**May 18, 2017 at 4pm CDT**
	Proposals shall be submitted electronically to the Odering Official listed below. Offerors are responsible for submitting proposals, and any modifications or revisions, so as to reach the Government office designated by the time specified above. If no time is specified, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that proposal or revision is due. Any proposal, modification, or revision received at the Government office designated herein after the exact time specified for receipt of offers is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and—(1) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or (2) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or (3) It is the only proposal received.
Building Name:	**Dirksen Federal Courthouse**
Building Number:	**IL0205ZZ**
Address:	**219 S. Dearborn St.**
City, State, Zip	**Chicago, IL 60604**
Room/Location:	**See SOW**
Client/Agency:	**GSA**
RFQ/RFP #:	**EQ5P2SS1P-17-0040**
PERFORMANCE PERIOD:	The Contractor shall be required to (a) commence work under this contract within 1 calendar day after the Contractor receives notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than (30) calendar days after receipt of notice to proceed. The time stated for completion shall include final cleanup of the premises. See FAR 52.211-10.
WORKING HOURS:	Work shall be performed during after working hours **(7:30PM-5:30AM) and noisy work must be performed before or after business hours** unless otherwise specified by the Contracting Officer (CO) or the Contracting Officer Representative (COR). Work accomplished during Government Unoccupied Hours shall be performed at no additional cost to the Government. Contractor shall submit a proposed schedule and gain the approval at least 5 days before proceeding with any work during Government Unoccupied Hours.
LIQUIDATED DAMAGE:	Contractor shall pay liquidated damages to the Government in the amount of **$150.00** for each calendar day of delay until the work is completed or accepted. See FAR 52.211-12.
PROVISIONS/CLAUSES:	Any order that is issued as a result of this **RFP** will be issued in accordance with all applicable regulations and the terms and conditions of the IDIQ contract. If there is a conflict between a delivery order or task order and the IDIQ contract, the contract shall control

WAGE DETERMINATION:	The Contractor shall comply with the wage determination effective under the IDIQ contract.
PRE-PROPOSAL CONFERENCE:	Offerors are urged and expected to inspect the site where services are to be performed and to satisfy themselves regarding all general and local condition that may affect the cost of contract performance, to the extent that the information is reasonably obtainable. In no event shall failure to inspect the site constitute grounds for a claim after award. A pre-proposal conference is scheduled for 5/9/2017 at 1:00pm CDT. At E.M. Dirksen U.S. Courthouse, Property Management Office, Room 200, 219 S Dearborn Street, Chicago, IL To request a reasonable accomodation due to a disability, please contact the Property Manager referenced below. **Paul Cullen** U.S. General Services Administration **230 S. Dearborn St** **Chicago, IL 60604** **Phone #312-834-9285**
BONDS REQUIRED (YES OR NO)	**No**
IF YES, AMOUNT REQUIRED:	The bid guarantee shall be in the amount of 20% of the amount of the bid. After award, the contractor shall furnish a performance and payment bond in a penal sum of 100% of the contract price. Reference FAR 52.228-1, 52.228-11 and 52.228-15.
ACCEPTABLE PROPOSAL PACKAGE:	Offerors are cautioned to carefully read the entire **RFP** order to be fully aware of all requirements, provisions, and clauses. Fills-in should be properly completed and verified. All copies should contain the same information. Verify before signing your quote/proposal. An offeror will not be considered for award if one or all of the information listed below is not submitted with the proposal. Offerors shall submit the following documents with their offer: ***RFP Offer Page*** *Acknowledgement of Amendment(s) if Applicable*
BASIS OF AWARD:	The Government intends to evaluate **proposals** and award an order without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror's initial offer should contain the offeror's best term from a cost or price and technical standpoint. The Government reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. The Government will award an order to the responsible Contractor whose offer, conforming to the Solicitation, represents the best value to the Government based on Total Price and a Non-Price Factor (Past Performance). When combined, the Past Performance is significantly more important than the Total Price. As contractors become more equal in terms of the Past Performance, the Total Price becomes more important. The Government will evaluate past performance of the offeror on any relevant contract that the offeror currently has or had of which the Contracting Officer has knowledge or obtains knowledge, including but not limited to projects listed in the Past Performance Information Retrieval System (PPIRS). The contractor shall submit a lump sum price for the work to be accomplished under this RFP. The price will include the contractor's labor, overhead, profit, and all contingencies in connection therewith, as no allowance will be made later for such items. Each contractor's price will be compared to the GCE and each other to determine if the price is fair and reasonable.

POINT OF CONTACT FOR QUESTIONS:	**Joel Doucette, Contract Specialist** **312-353-0797** **joel.doucette@gsa.gov**
ORDERING OFFICIAL:	**Erica Bradbury, Contracting Official** **312-886-7876** **erica.bradbury@gsa.gov**
ATTACHMENTS:	***RFP Offer Page*** Technical Specification

REQUEST FOR PROPOSAL (RFP) OFFER SUBMISSION FORM

Project Title:	USAO Electric and Outlets Project
RFP Number:	EQ5P2SS1P-17-0040
RFP Issue Date:	May 3, 2017
Proposal Due Date:	May 18, 2017
Building Name:	Dirksen Federal Courthouse
Building Number:	IL0205ZZ
Address:	219 S. Dearborn St.
City, State, Zip	Chicago, IL, 60604
Room/Location:	See SOW

Faxed and Emailed Proposals are acceptable.
Submit To :
joel.doucette@gsa.gov and erica.bradbury@gsa.gov
GENERAL SERVICES ADMINISTRATION
Acquisition Management Division (AMD)
Chicagoland Contracting Team, 230 S. Dearborn Street, Suite 3600
Chicago, IL 60604

Attention: Joel Doucette	**Erica Bradbury**
Phone: 312-353-0797	**312-886-7876**
Fax: 312-353-1461	
Email: joel.doucette@gsa.gov	**erica.bradbury@gsa.gov**

CONTRACTOR (Name, address, city,state, and zip code)

_____

_____

_____

Signature:_____

Title:_____

Date:_____

Lump Sum Amount:_____

The Offeror agrees to perform work required at the price specified in strict accordance with the terms of this RFP, if this offer is accpeted by the Government in writing.
Acceptance Period _____ (*insert acceptance period if different from below*)

Offeror's providing less than 60 calendar days for Government acceptance after the date offerors are due will not be considered for award and will be rejected.

SCOPE OF WORK FOR:

USAO Electric and 220v Outlets

Dirksen Courthouse **Il0205ZZ**
219 S Dearborn St.
Chicago Il 60604

Scheduled Pre-bid Walkthrough:	**5/9/2017** *DATE*	**1:00** *TIME*	**AM ☐**	**PM ☒**	**TBD ☐**
RFP Closing Date:	**5/18/2017** *DATE*	**4:00**	**PM**		

CONTACT INFORMATION

Project Manager: **Paul Cullen**
Phone: **(312) 279-8157**
Cell: **(312) 834-9285**
Email: **paul.cullen@gsa.gov**

PROJECT ESTIMATED SUBSTANTIAL COMPLETION DATE: **TBD ☒**

PERFORMANCE PERIOD: Upon issuance of the Notice to Proceed (NTP) the Contractor will have 30 calendar days to complete this project.

1. **WORK SUMMARY**

    1. Conduct electrical load demand metering at (6) electrical panels to determine panel capacity, space availability and verify panel has sufficient rating for active power loads. Metering time frame must be coordinated to verify normal and peak operating conditions of tenant operations. Any additional repairs or alterations to correct overloads, panel deficiencies or to allow for the remaing items of this SOW to be completed are not included in this SOW.
    2. Install dedicated 208-240V/20A/60Hz NEMA 6R circuits/outlets for printers in rooms 3003, 4001, 4077, 5041, 5093 and 9036.
    3. Asbestos abatement required to retrofit exitsting 120V doghouse outlet locations for new 240V configuration.
    4. Repairs to plaster, drywall, tile or finishes associated with work including new hardware for outlets including but not limited to trim rings, cover plates, molding, backboxes and any other associated hardware.

2. **INTENT OF WORK**

    The specifications below are to be used as intent of work to be performed only. Means and methods to complete the work and provide a finished product that meets or exceeds the expectations within these guidelines is the Contractor's responsibility. All work shall be completed in accordance to (with) all applicable, Federal, State & Local codes and regulations, OSHA safety requirements, NEC and NFPA requirements.

    The Contractor shall coordinate with the Property Management Office to ensure all work performed complies with the building standards.

3. GENERAL INFORMATION

A. Building Access and Hours of Performance

1. All work shall be performed during (select all that apply):
   - ☒ After hours - 7:30PM – 5:30 AM
   - ☐ Working hours – 6:00AM – 6:00PM
   - ☐ Weekends
   - ☒ Other – Specify Noisy work must be performed before or after business hours

   The times checked above shall be coordinated at time of construction unless otherwise specified by the Contracting Officer (CO) or the Contracting Officer Representative (COR). Special requirements from the Property Management Office and/or the agency must be taken into consideration during all phases of construction.

2. Scheduling of work shall be coordinated with the Project Manager.

3. Offerors are urged and expected to inspect the site where services are to be performed and to satisfy themselves regarding all general and local conditions that may affect the cost of contract performance, to the extent that the information is reasonably obtainable. In no event shall failure to inspect the site constitute grounds for a claim after contract award. The submission of a proposal shall be conclusive evidence that the contractor has made such an examination. Arrangements for any requested site visits may be scheduled by contacting the Project Manager.

4. Any additional site visits required after the pre-bid walkthrough must be requested via email to the Contracting Officer Representative prior to visit. Such a request must be made with a minimum of 24 hours notice – no exception.

5. Contractors shall come prepared to the pre-bid walkthrough to evaluate all details required to accommodate and complete the SOW as indicated. This shall include, but is not limited to; electrical, mechanical, carpentry, data and communication, etc.

6. Provide not less than seventy-two (72) hours notice of activities that will affect operations of occupied spaces and building.

7. Maintain access to existing walkways, exits, and other facilities used by occupants during working hours and after hours to assure that Life Safety Code and OSHA requirements are met.

8. The Contractor shall provide not less than 48 hour notice when requesting building access and/or dock access. Building and Dock access requests shall be submitted to the Project Manager. The following information must be contained on the request form.

   Building access requests shall include;
   - Names of all persons.
   - Dates and times for access

   Dock access requests shall include;
   - Names of driver and passenger(s)
   - Make and type of vehicle
   - License plate of vehicle
   - Delivery date
   - Time entering/leaving – loading and unloading permitted only

9. If required, the Contractor shall complete and submit permit request forms to the Project Manager. Forms may be obtained from the Project Manager or Property Management Office. Forms may include but are not limited to; electrical shutdown, fire protection, sprinkler, burn permit, lighting shutdown, electrical/data/utility closet access, etc.

B. Existing Conditions

It is the Contractor's responsibility to fully inspect existing conditions and include in their cost all materials and labor required to provide a complete and operational product meeting or exceeding all Federal Codes and intent of scope.

C. Security Clearance Requirement and Building Access

Any order that is issued as a result of this RFP shall comply with the security clearance regulations and the terms and condiditions of section 01593-Security Regulations of the IDIQ contract..

D. Request for Information (RFI) / Clarification

The Contractors are encouraged to make requests and/or clarifications a minimum of 48 hours prior to the RFP closing date. Any requests for information or clarification submitted within 48 hours prior to the RFP closing will not constitute extending the RFP closing date.

E. Deliveries

The Contractor shall submit a dock access request per above, Section 3.A.8, and include the name of the badged person(s) accepting the delivery. The Contractor shall be responsible for accepting the delivery and ensuring it is delivered to the project area accordingly. Storage at the dock level, public hallways, storage closet, electrical closets, data clostes, etc. are not permitted. Dock access is for delivery/drop off/pick-up only. No parking will be permitted.

F. Special Instructions from the Property Management Office

If required, Contractor shall complete and submit permits to the Project Manager for any and all required building shut down of electrical, fire protection, HVAC, lighting or any other major building system. Permit forms may be obtained from the Project Manager or the Property Management Office.

G. Sprinkler Work

If the fire protection sprinkler system must be altered as a part of this project, all work shall be done by a journeyman sprinkler fitter with a NICET Level 1 or higher certification. Provide documentation of this certification to the project manager as soon as the individual is identified by the contractor and before this person arrives on site. The sprinkler fitter shall assure that all work is compliant with NFPA 13, Standard for Automatic Sprinklers and that changes in location of sprinklers meet all of the sprinkler spacing and sprinkler density requirements. Sprinkler hangars and surge restraints shall be added or replaced as necessary to do this work.

The addition of 6 or more sprinklers to the system shall be hydraulically calculated by the sprinkler contractor to assure proper water supply to all sprinklers. The relocation, altering of piping, or any work affecting more than 20 sprinklers shall require a hydrostatic test of 200 psi for 2 hours for that section of the sprinkler system affected. For work affecting 20 sprinklers or less, the system pressure shall be introduced to the piping and piping shall be checked for a period of 2 hours to assure no leaking is taking place. All testing of the sprinkler piping shall be done without the ceiling in place below new or altered piping. Final acceptance testing shall be witnessed by the GSA Regional Fire Protection Engineer or their designee.

H. Fire Alarm Work

If the fire alarm system or components thereof need to be altered, relocated, or added to, all work shall be done or supervised by a fire alarm technician with a minimum NICET Level II certification for fire alarms. Provide documentation of this certification to the project manager as soon as the individual is identified by the contractor and before this person arrives on site. That technician must be a representative of the fire alarm manufacturer for the system in the building if any programming or proprietary actions must be taken. The technician shall be responsible for relocating and/or adding to the notification devices so that NFPA 72 spacings are maintained and that minimum audibility and intelligibility requirements are met for the area of work without any negative affect on devices outside of the area of work. The technician shall verify that notification circuits are able to carry the load of any added devices without additional power supplies nor notification panels.

Initiating devices shall be relocated, or added to as required for compliance with NFPA 72 and GSA standards without overloading any circuit in the fire alarm system.

Whenever 5 or more devices are added to any circuit, the fire alarm contractor shall provide new voltage drop calculations for each affected circuit. Upon addition of ANY new devices, the battery calculations shall be updated for the panel(s) serving the new additions.

Existing fire alarm devices shall not be removed from the system during construction. They must be appropriately hung up out of the way so that they continue to provide fire alarm service. Impairments of the fire alarm system shall be coordinated with the Property Manager of the building without exception.

Upon completion of the fire alarm work, all new and relocated devices shall be fully functionally tested. If additions or changes were made to the fire alarm system programming, then all new addressable devices and 10 percent of all existing devices in the building up to a maximum of 50 shall be fully functionally tested as required by NFPA 72. Final acceptance testing shall be witnessed by the GSA Regional Fire Protection Engineer or their designee. All fire alarm testing shall be done at a time when the sounding of the alarm will not disrupt government activities which may mean considerable after hours work. If testing cannot be accomplished during normal day time hours, then it shall be scheduled for the early evening at the earliest time acceptable to the Property Manager. Any tests proposed on weekends, holidays, or early morning hours must be approved by the Property Manager, Project Manager, Contracting Officer, and the GSA Regional Fire Protection Engineer.

4. EXECUTION OF SCOPE OF WORK (GC & GSA Responsibilities)

A. GENERAL NOT APPLICABLE ☐

1. Site must be clean and free of debris after each shift. All contractor employees required to sign in daily with USAO.

B. DEMOLITION **NOT APPLICABLE** ☐

1. As required to complete scope specified in Work Summary.
2. Any abatement work following General Specification GSA SECTION 02-8200 ASBESTOS ABATEMENT

C. ARCHITECTURAL/CONSTRUCTION **NOT APPLICABLE** ☐

1. As required to complete scope specified in Work Summary including finishes required to leave all new work in place with a finished appearance.

D. ELECTRICAL **NOT APPLICABLE** ☐

1. Load demand metering
2. Installation of new outlets including new circuits back to breaker panels.

E. LIGHTING **NOT APPLICABLE** ☒

1.

F. TELECOMMUNICATION **NOT APPLICABLE** ☒

1.

G. SECURITY **NOT APPLICABLE** ☒

1.

H. MECHANICAL (HVAC) **NOT APPLICABLE** ☒

1.

I. PLUMBING **NOT APPLICABLE** ☒

1.

J. FINISHING **NOT APPLICABLE** ☒

K. FIRE AND LIFE SAFETY **NOT APPLICABLE** ☒

1.

L. ADDITIONAL INFORMATION **NOT APPLICABLE** ☒

1.

M. WARRANTEE/GUARANTEE **NOT APPLICABLE** ☒

1.

N. BUILDING DRAWINGS **NOT APPLICABLE** ☒

1.

O. SUBMITTALS **NOT APPLICABLE** ☐

1.

Check the box below if a cutsheet is required:

- ☐ **Mechanical**
- ☐ **Plumbing**
- ☒ **Furnishings, Fixtures & Equipment FFE**
- ☐ **Telecommunication**
- ☐ **Security**
- ☐ **Fire Alarm**
- ☐ **BAS**
- ☒ **O&M Manuals & Maintenance**
- ☒ **Abatement Plan**

5. QUALIFICATIONS

A. Quality Assurance

The Contractor shall use adequate numbers of skilled tradesmen who are thoroughly trained, certified and experienced in the necessary crafts, and who are completely familiar with the specific requirements and the methods needed for proper performance of work. All measurements and dimensions shall be field verified by the Contractor, prior to submittal of a bid. Any noticeable discrepancies shall be brought to the attention of the CO or COR immediately. Failure to notify the CO or COR of discrepancies may result in the work being re-done at the Contractor's expense.

B. Supplies, Materials and Equipment

The Contractor shall furnish all management, supervision, labor, tools, supplies, materials and equipment to perform the services described herein and in accordance with all applicable Federal Codes. Materials, supplies and equipment used shall be commercially available products of reputable manufacturers or suppliers. Provide the Project Manager submittals for approval by the CO or COR prior to starting work.

The Government will not be responsible in any way for damage to or loss of supplies, materials, tools, equipment or personal property belonging to the Contractor, Sub-Contractors or their respective employees

The Government will furnish all air, electricity, heat and water for the duration of the project.

C. Special Requirements

1. Contractor will be required to obtain security clearance for work within the building. Also contractors are required to sign in daily with agency personnel in the tenant space.

6. SUBMITTALS

A. Pre-Construction Meeting

The required submittals are due 7 days after award of the order, if applicable.

1. Project Directory & Subcontractor list.
2. Submit photographs/video showing existing conditions of adjoining construction improvements, including finish surfaces that might be misconstrued as damage caused by building demolition operations.
3. Shop Drwgs/Product/Data Sheets
4. Samples
5. Schedules
6. Qualification Docs

B. Project Specific Safety Plan

1. Provide a job specific safety plan that demonstrates the firm's approach to preventing accidents and injuries with contingency plans for responding to accidents. Provide specific methods for processing correspondence, and for dealing with issues, problems, questions, emergencies and other areas. This plan shall be submitted within 24 hours of notice of award.
2. Submit informational report, including drawings, that indicates the measures proposed for protecting individuals and property. Indicate proposed locations and construction of barriers.

C. Project Specific Fire Protection and Prevention Plan

1. Provide a project specific fire protection & prevention plan as required By IBC, IFC, and NFPA 241, Standard for Fire Protection & Prevention for Demolition, Alteration and Construction. Provide all elements in the plan that will be encountered on this project.
2. This plan shall be submitted and approved by the GSA Fire Protection Engineer prior to work beginning on site.

D. Project Construction Schedule / Schedule of Values

1. All schedules shall be submitted to the Project Manager for review, coordination and approval prior to starting any work. The schedule shall comply with the provisions of the IDIQ contract including but not limited to those pertaining to format, content, and keeping it updated. Besides typical construction tasks and milestones, care should be taken to include anticipated items related to building access, burn permits, utility shut downs, etc.

E. After Award

1. At the completion of the project and prior to final payment, the Contractor shall provide on their letterhead the following information: Date, Project Name, Project Location, and a written description explaining that all work has been completed in accordance with all federal codes and regulations, NEC codes, and NFPA.

7. WORKMANSHIP

A. Standards of Conduct

1. Maintain standards of competency, conduct, appearance and integrity in his employees at all times.
2. Ensure that employees do not enter any areas where work is not being performed, use government telephones unless specifically authorized by a GSA representative.
3. Relieve an unsuitable or otherwise objectionable employee whose continuing employment on the job is contrary to the public interest or inconsistent with requirements for security.

B. Cleanup and Debris Removal

1. The Contractor shall remove all debris generated in the performance of this contract, daily. The space must be fully operational no later than 5:30a the following work day of any construction. Upon completion of the work, the Contractor shall remove and dispose of all unused materials, containers, wrappings, cuttings, trimmings and any other debris accumulated as a result of this contract. The Contractor shall make every effort to provide for recycling of all materials utilized during the course of the project.
2. Use of the buildings' trash receptacles is at the sole discretion of the Building Manager. The Project Manager reserves the right to contact the Property Management Office to have the area cleaned and the cost incurred will be deducted from the General Contractor's final invoice.

8. CHANGE ORDERS

Any work outside the intent or scope shall constitute a Change Order. The Contractor shall provide the Contracting Officer Representative (COR) a written explanation of cost. The costs shall be broken out in line items including General Conditions, Materials and Quantity, Labor and Hours, and any other additional line item as required to indicate the complete scope of the change. All Change Orders must be presented timely such that it does not hinder or cause the schedule to increase. Any extension of the project schedule must be noted and an approximate time extension indicated. Failure to indicate time extension will be interpreted as no time extension is required. Work as specified herein must be completed per the date specified regardless of any pending change orders unless otherwise agreed to by GSA and the Contractor.

9. METHOD OF AWARD

The Government will award an order to the responsible Contractor whose offer, conforming to the Solicitation, represents the best value to the Government based on Total Price and a Non-Price Factor (Past Performance). When combined, the Past Performance is significantly more important than the Total Price. As contractors become more equal in terms of the Past Performance, the Total Price becomes more important.

The Government will evaluate past performance of the offeror on any relevant contract that the offeror currently has or had of which the Contracting Officer has knowledge or obtains knowledge, including but not limited to projects listed in the Past Performance Information Retrieval System (PPIRS).

The contractor shall submit a lump sum price for the work to be accomplished under this RFP. The price will include the contractor's labor, overhead, profit, and all contingencies in connection therewith, as no allowance will be made later for such items. Each contractor's price will be compared to the GCE and each other to determine if the price is fair and reasonable.

***All construction for this project must meet ADA requirements.**

SECTION 02-8200
ASBESTOS ABATEMENT

PART 1 – GENERAL

1.01 SUMMARY

1.02 SCOPE OF WORK

A. Summary: Work in this Section includes the provision of all labor, operational equipment and incidental materials required to remove and dispose asbestos-containing **plaster, mastics or tile** and specified herein.

B. Schedule: Contractor to submit a project schedule to meet the needs of the construction schedule (detailing locations and dates of environmental abatement). Contractor to update the schedule weekly.

C. References. In addition to the publications referenced in the Construction Contract Clauses, the following publications are referenced and are applicable to this project:

1. 29 CFR Part 1910.
2. 29 CFR Part 1926.
3. 40 CFR Part 61.
4. 40 CFR Part 763.

D. Definitions. The following list of definitions is applicable to this project unless a Variance has been issued from the Office of the Regional Environmental Engineer.

1. “Abatement” means removal, encapsulation, enclosure and/or repair of asbestos containing materials.
2. “Adequately Wet” means sufficiently mix or penetrate with liquid to prevent the release of particulates.
3. “Aggressive Air Sampling Methods” means a method of sampling in which the person collecting the air sample creates activity during the sampling period to stir up settled dust during the collection of the air samples.
4. “AHERA” means the Federal Asbestos Hazard Emergency Response Act, 40CFR Part 763, Subpart E.
5. “Air Sampling Professional” means an individual that holds a valid license in the State in which the work is being performed, who is employed either directly or indirectly by GSA to conduct air sampling and sample analysis.
6. “Airlock” means a system for permitting entrance and exit with minimum air movement between an asbestos regulated work area where airborne asbestos fibers are expected to be encountered (the “dirty” side) and any other area (the “clean” side), consisting of two curtained doorways separated by a distance of at least three feet such that a person passes through one doorway into the airlock, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway, thereby preventing flow-through of air from the “dirty” side to the “clean” side.
7. “Amended water” means water to which a surfactant has been added to improve water penetration.
8. “Area Air Sampling” means any form of air sampling or monitoring where the sampling device is placed at some stationary location.

9. "Asbestos" means the asbestiform varieties of serpentine (chrysotile), amosite, riebeckite (crocidolite), tremolite, anthophyllite, and actinolite as identified using polarized light microscopy.
10. "Asbestos Containing Material or ACM" means any material or product that contains more than 1% asbestos.
11. "Asbestos Containing Building Materials or ACBM" means Surfacing ACM, Thermal Systems Insulation ACM, Miscellaneous ACM, in or on the interior surfaces of a building.
12. "Asbestos Containing Waste Material" means any waste that contains commercial asbestos. This term also includes filters from control devices, bags or packages with commercial asbestos materials, waste from regulated asbestos work area projects, and objects contaminated with asbestos including disposable equipment, rags, and clothing.
13. "Asbestos Inspector" means an individual that holds a valid license in the State in which the work is being performed, to conduct asbestos building inspections.
14. "Asbestos Supervisor" means a licensed asbestos abatement contractor holding a valid license in the State in which the work is being performed.
15. "Asbestos Worker" means an individual that holds a valid license in the State in which the work is being performed who cleans, removes, encapsulates, prepares, encloses, erects, hauls, or disposes of asbestos materials or wastes.
16. "Authorized Visitor" means the GSA Property Manager or Project Manager, or any person designated by the GSA Property Manager or the Project Manager, the Regional Environmental Engineer, and any representative of a regulatory or other agency having jurisdiction over the project.
17. "Background Levels" means the concentrations of airborne fibers as determined by phase contrast or transmission electron microscopy, in and adjacent to, the work areas, prior to the start of the work.
18. "Category I Non-Friable Asbestos Containing Material" means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1 % asbestos as determined using the method specified in Appendix E, Subpart E, 40 CFR part 763, Section 1, Polarized Light Microscopy.
19. "Category II Non-Friable ACM" means any material, excluding Category I Non-Friable ACM, containing more than 1% asbestos as determined using the method specified in Appendix E, Subpart E, 40 CFR part 763, Section 1, Polarized Light Microscopy, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
20. "Class I Asbestos Work" means activities involving the removal of Thermal Systems Insulation (TSI) and Surfacing ACM and PACM.
21. "Class II Asbestos Work" means activities involving but not limited to the removal of asbestos containing wall board, floor tiles and sheeting, roofing and side shingles, and construction mastics. Class II work does not include Class I work.
22. "Class III Asbestos Work" means repair and maintenance operations where ACM is likely to be disturbed.
23. "Class IV Work" means maintenance and custodial activities during which employees contact but do no disturb ACM or PACM and activities to clean up dust, waste, and debris from Class I, Class II, and Class III work.
24. "Clean Room" means a "clean side" area or room which is a structural part of the Worker Decontamination Enclosure System (WDES) with provisions for storage of workers' street clothes and protective equipment.
25. "Clearance Air Monitoring" means the employment of aggressive sampling methods with a volume of air collected to determine the airborne concentration of fibers upon conclusion of an asbestos abatement project.

26. "Commercial Asbestos" means any material containing asbestos that is extracted from ore and either has or has had value because of its asbestos content.
27. "Competent Person" means a person who is capable of identifying existing asbestos hazards in the workplace and in selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective actions to eliminate them. It also means a person who holds a valid asbestos license as a contractor's supervisor in the State where the work is taking place.
28. "Contained Area" means an enclosed work area in a building where negative air pressure and High Efficiency Particulate Absolute (HEPA) filtration are use to contain airborne fibers during removal, enclosure, or encapsulation of ACBM during an asbestos abatement project.
29. "Critical Barrier" means one or more layers of plastic sealed over openings into a work area or any similarly placed physical barrier, sufficient to prevent airborne fibers in a work area from migrating to adjacent areas.
30. "Curtained Doorway or 'Z'-Flap" means a devise that consists of at least three overlapping sheets of plastic over an existing or temporary framed doorway. One sheet shall be secured at the top and left side, the second sheet at the top and the right side, and the third sheet at the top and the left side. The sheets shall have weights attached to the bottom to ensure that the sheets hang straight and maintain a seal over the doorway when not in use. Curtained doorways shall be installed at each end of each airlock and each end of each room of the Decontamination Enclosure Systems.
31. "Decontamination Enclosure System (DES)" means a series of connected rooms, separated from each other by air locks, used for the decontamination and exit from the work area. A Worker's Decontamination Enclosure System (WDES) shall be constructed for use by personnel entering and exiting the work area. An Equipment Decontamination Enclosure System (EDES) shall be constructed for cleaning and removing of containerized waste material from the work area. Both enclosure systeme shall be erected and used on this project.
32. "Demolition" means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility as described by OSHA. Demolition and renovation are not the same activities.
33. "Disturbance" means activities that disrupt the matrix of asbestos containing material and PACM.
34. "Encapsulant" means a liquid material which can be applied to ACBM and which temporarily controls the possible release of asbestos fibers from the material, either by creating a membrane over the surface (Bridging Encapsulant) or by penetrating into the material and binding its components (Penetrating Encapsulant).
35. "Encapsulation" means the treatment of ACBM with a material that surrounds or embeds asbestos fibers and asbestos fiber bundles in an adhesive matrix that prevents the release of fibers.
36. "Enclosure" means the construction of an airtight, impervious, and permanent wall and ceiling between the ACBM and the occupied space of the building.
37. "Equipment Decontamination Enclosure System or EDES" means a decontamination enclosure system designed for the controlled transfer of materials, equipment, and containerized waste into and out from the work area. The EDES shall consist of the following (from "dirty" side to "clean" side):
    a. Curtained Doorway
    b. Wash Room
    c. Curtained Doorway
    d. Airlock

e. Curtained Doorway
f. Holding Area
g. Curtained doorway

38. "Equipment Room" means a room or area on the "dirty side" which is part of the WDES with provisions for the storage or contaminated clothing and equipment that is intended for reuse. The equipment room shall be separated from the work area and from additional rooms in the WDES by air locks with curtained doorways.
39. "Facility" means any institutional, commercial, public, industrial, or residential structure, installation, or building, any ship, and any active or inactive waste disposal site.
40. "Facility Component" means any part of a facility including equipment.
41. "Fiber Release Episode" means any uncontrolled or unintentional disturbance of ACM resulting in visible emissions.
42. "Fixed Object" means a unit of equipment or building system component which can not be removed from the work area.
43. "Friable" means a material, when dry, that may be crumbled, pulverized, or reduced to powder by hand pressure. The term friable also applies to non-friable material that will intentionally become friable as a result of sanding, drilling, chipping, striking with an object (such as a wrecking ball), or demolition.
44. "Glovebag" means a manufactured device consisting of a plastic bag (constructed of a minimum of 6-mil thickness transparent plastic) with two attached inward projecting long-sleeved rubber gloves, one attached inward projecting water wand sleeve, an attached internal tool pouch, and an attached labeled receptacle for asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and that it contains the fibers that are released during the removal process.
45. "Glovebag Technique" means a method for removing friable ACBM from heating, ventilation, air conditioning (HVAC) ducts, piping runs, valves, joints, elbows, and other non-planer surfaces.
46. "Governments Environmental Consultant or GEC" is an individual who is employed either directly or indirectly by GSA to provide third party observations, project coordination, and oversight on behalf of GSA on every aspect of an asbestos abatement project.
47. "HEPA" means High Efficiency Particulate Absolute.
48. "HEPA Filter" means a high efficiency particulate absolute filter capable of retaining 99.97 percent of particles (including fibers) that are greater than 0.3 micrometers in mass median aerodynamic equivalent diameter, with an efficiency designation of 100 in accordance with NIOSH 42 CFR 84, *Respiratory Protection Devices*.
49. "HEPA vacuum equipment" means vacuuming equipment with a high efficiency particulate absolute filter system.
50. "Holding Area" means a room or area on the "clean side" which is part of the EDES with provisions for the storage of containerized waste that has been decontaminated in the wash room of the EDES. The Holding Area shall be separated from the work area and from additional rooms in the EDES by air locks with curtained doorways.
51. "Intact" means that the ACM has not crumbled, been pulverized, or otherwise deteriorated so that the asbestos is no longer bound with its matrix.
52. "Leak-tight" means that solids or liquids cannot escape or spill out. Leak-tight also means dust-tight.

53. "Miscellaneous Material" means interior building material on structural components, structural members, or fixtures, such as floor and ceiling tiles, and does not include Surfacing Materials or Thermal Systems Insulation.
54. "Mini-Containment Area" means a contained and regulated area in which Glovebag Techniques are being employed.
55. "Negative Air Pressure Equipment" means a portable local exhaust system equipped with HEPA filtration. The system shall be capable of maintaining a constant, low velocity airflow from asbestos abatement work areas to the outdoors, thereby creating a negative pressure differential between the work area and the remaining areas of the building.
56. "Negative Initial Exposure Assessment" means a demonstration by the contractor that by using the specific work procedures to by employed on the project, employee exposure during the project is expected to be consistently below the PEL.
57. "NESHAP" means the National Emission Standards for Hazardous Air Pollutants (40 CFR 61).
58. "Nonfriable Asbestos-Containing Material" means any material containing more than 1% asbestos as determined using the method specified in Appendix E, Subpart E, 40 CFR part 763, Section 1, Polarized Light Microscopy, that, when dry, may not be crumbled, pulverized, or reduced to powder by hand pressure.
59. Office of the Regional Environmental Engineer" means the GSA Environmental Engineer for Region 5, assigned to the Fire Protection and Safety Branch or an individual or company designated by the Environmental Engineer.
60. "Operations and Maintenance" means a program of work practices to maintain friable and nonfriable ACBM in good condition, to provide for the clean-up of asbestos previously disturbed or damaged, and to prevent further releases by minimizing and controlling disturbances and damage to ACBM.
61. "OSHA" means the Occupational Safety and Health Administration.
62. "Outside Air" means air from outside of the work area.
63. "Personal Air Monitoring or Exposure Monitoring" means a method used to determine employees' exposure to airborne fibers through the collection of air samples from the breathing zone of an individual in the work area. Personal Air Monitoring must be conducted in accordance with 29 CFR 1910.1001 and 1926.1101.
64. "PACM" means Presumed Asbestos Containing Material.
65. "Permissible Exposure Limit (PEL) for asbestos fibers, as expressed as an eight-hour Time Weighted Average (TWA)" means the concentration at which no employee shall be exposed to. The PEL is 0.1 fibers per cubic centimeter as determined by Phase Contrast Microscopy.
66. "Presumed Asbestos Containing Material" means thermal systems insulation and surfacing material found in buildings constructed no later than 1980 unless that material has been determined to NOT contain asbestos based on an adequate number of samples having been analyzed using the method specified in Appendix E, Subpart E, 40 CFR part 763, Section 1, Polarized Light Microscopy.
67. "Project "means removal, encapsulation, enclosure, or repair of more than three linear feet, three square feet, or one cubic foot of ACM.
68. "Regulated Asbestos Containing Material (RACM)" means:
    a. Friable Asbestos Containing Material; or,
    b. Category I Non-friable ACM that has become friable; or,
    c. Category I Non-friable ACM that will be subject to sanding, grinding, cutting, abrading; or,
    d. Category II Non-friable ACM that has a high probability of becoming damaged or friable in the course of renovation or demolition operations.

69. "Regulated Area" means an area established by the contractor to demarcate areas where Class I, Class II, and Class III asbestos work is being conducted. It also means any areas where debris and waste from such asbestos work accumulate; and a work area within which airborne fiber concentrations either exceed or there is a reasonable possibility that they may exceed the permissible exposure limit.
70. "Remote Decontamination Enclosure System" means a decontamination enclosure system which is not connected to the contained work area.
71. "Removal" means the intentional detachment of any asbestos-containing materials from surfaces or components of a building or taking out building components.
72. "Renovation" means altering a facility or one or more facility components in any way, including the stripping or removal of Regulated Asbestos Containing Material from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.
73. "Repair" means rewrapping or taping damaged pipe or boiler (or similar vessel) insulation and patching of surfacing material.
74. "Resilient Floor covering" means asphaltic and vinyl floor tiles, sheet flooring materials, and their associated adhesive mastics.
75. "Response Action" means a method with procedures including removal, encapsulation, enclosure, repair, operations and maintenance, and clean-up after an accidental release, that protects human health and the environment from friable ACBM.
76. "Secure Separation Barriers" means a rigid barrier constructed of ½ inch minimum thickness plywood, gypsum board, or similar sheathing material with sufficient framing to support the barrier designed to prevent the possible access by building occupants into areas where project activities will occur. A Secured Separation Barrier **shall not** be used as a containment area barrier.
77. "Separation Barrier" means a rigid barrier that is erected in a building space to reduce the volume of a work area, such as erecting a barrier along the perimeter of a series of rooms in order to remove materials from windows without making the entire room a work area. This type of Barrier SHALL NOT be used to separate occupied areas of the building from the work area. This type of Separation Barrier shall be of ½ inch minimum thickness plywood gypsum board or similar sheathing material with suitable framing to support the Separation Barrier. The seams and edges of the Separation Barrier shall be caulked and the work area side of the Separation Barrier shall be covered with two layers of six-mil plastic sheeting equivalent.
78. "Shall" means the stated provision is mandatory.
79. "Shower Room" means a "clean side" area or room separated from the Clean Room and from the Equipment Room by airlocks with curtained doorways, which is a structural part of the Worker Decontamination Enclosure System (WDES) with hot and cold running water controllable at the tap and arranged for complete showering during decontamination.
80. "Shut Down and Lock Out Power" means to switch off every electrical circuit breaker serving power or lighting circuits which run to, or through, the work area. Lock the electrical panel or door with separate locks.
81. "Staging Area" means a "dirty side" area separated from the Wash Room by an airlock with curtained doorways, which is adjacent to Equipment Decontamination Enclosure System (EDES) designated for the temporary storage of containerized waste prior to removal from the work area.

82. "Structural Member" means any load supporting member of a facility, such as beams and load supporting walls, or any non-load supporting member such as ceilings and non-load supporting walls.
83. "Surfactant" means a chemical wetting agent that, when added to water, will improve the penetration characteristic of the water in order to reduce fiber release.
84. "Surfacing Material" means material that is sprayed, troweled-on, or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing on structural members).
85. "Thermal System Insulation (TSI)" means insulation material applied to pipes, fittings, boilers, breechings, vessels, tanks, ducts, or other structural or mechanical components, to prevent heat gain or loss, reduce noise, control condensation, or any other purpose including decorative.
86. "Visible Emissions" mean any emissions containing particulate, airborne or as tracked dust, that are visually detectable with out the aide of instrumentation.
87. "Wash Room" means a "dirty side" area separated from the Staging area of the work area by a curtained doorway, which is a structural component of the Equipment Decontamination Enclosure System (EDES) designated for cleaning of waste containers, equipment, and any other items, except for personnel, from the work area.
88. "Wet Cleaning" means the process of eliminating residual asbestos fibers from surfaces and objects by using cloths, mops, and other cleaning tools which have been dampened with water. After cleaning, the cloths, mops, and other cleaning tools must be disposed as Asbestos Containing Waste Material.
89. "Work Area" means the designated rooms, spaces, or areas where an aspect of an asbestos abatement project is being conducted.
90. "Worker Decontamination Enclosure System or WDES" means a decontamination enclosure system designed for the decontamination of personnel exiting the work area. The WDES shall consist of the following (from "dirty" side to "clean" side):
    a. Curtained Doorway
    b. Equipment Room
    c. Curtained Doorway
    d. Airlock
    e. Curtained Doorway
    f. Shower Room
    g. Curtained doorway
    h. Airlock
    i. Curtained Doorway
    j. Clean Room
    k. Curtained Doorway

PART 2 - ASBESTOS ABATEMENT SUBMITTALS

2.01 SUBMITTALS

A. Qualifications.

1. Contractor shall submit evidence of satisfactory completion of five projects similar to scope and size to this project that were completed in the last 24 months.
2. Contractor shall submit professional references for projects completed in federal buildings in the last 24 months.

3. Contractor shall submit the names and a list of relevant experience for the proposed Site Supervisor, Competent Person, and workers that are proposed for this project.
4. Contractor shall submit a copy of the recent asbestos license for each of the individuals listed in item 3, above.

B. Asbestos Abatement Action Plan. Contractor shall prepare and submit an Asbestos Abatement Action Plan (Plan). The Plan shall be submitted to the GSA Property Manager, the GSA Project Manager and to the GSA Regional Environmental Engineer and the Government's Environmental Consultant for review and approval at least **30 calendar days prior to the start of the work.** No work shall be allowed until the Plan has been approved. The Plan shall include drawings and narratives, sufficient in detail to demonstrate and indicate the following:

1. The specific areas of work in the building.
2. Areas of the building which will be occupied during the work.
3. Locations of critical barriers.
4. Delineation of each regulated area.
5. Location of Decontamination Enclosure Systems.
6. Location of waste accumulation.
7. Route of workers from outside the building, into the work area, from decontamination to break areas and to out of doors.
8. Location of waste dumpster.
9. Route of containerized waste containers from the work area to out door.
10. Location of mini-enclosures (if applicable).
11. Location of remote decontamination enclosure system (if applicable).
12. Location of negative air machine exhaust points and path of exhaust ducts.
13. Completion of a GSA Notification Form.
14. A narrative sequencing plan with a detailed schedule clearly indicating the various aspects of the work.

C. Sample Submittals. Contractor shall submit for review and approval **at least 30 calendar days prior to the scheduled start of the work,** samples of encapsulants, solvents, adhesives, and any other chemical product that is proposed to be used on this project. No products may be brought into the building until approved by either the GSA Project Manager, the GSA Property Manager, the GSA Regional Environmental Engineer, and Government's Environmental Consultant or as specified elsewhere in this document. The samples shall be in their original containers and shall be accompanied by their Material Safety Data Sheets.

D. Additional Submittals. **At least 10 calendar days prior to the commencement of any work,** the contractor shall submit the following information to the GSA Property Manager, the GSA Project Manager, the GSA Regional Environmental Engineer, and the Government's Environmental Consultant for review and approval prior to starting the work:

1. Documentation that arrangements have been made for the transport and disposal of waste generated at this project and the name and location of the disposal sites.
2. Documentation that each worker and supervisor is licensed in the State where the work is being performed.
3. Drawings for layout and construction details for Decontamination Enclosure Systems and barriers for isolation of the work area.

E. Contractor shall provide the following information during the asbestos work:

1. Results of air monitoring from the previous 24-hour period.
2. Differential air pressure readings for each containment area.
3. Asbestos containing waste shipment records.
4. Job progress reports detailing the abatement/mitigation activities, including a review of progress with respect to previously established schedules, problems, and actions taken, injury reports, and equipment breakdowns, if applicable.
5. Copies of worksite entry logs showing the name, date and time for worker and visitor access to the work area.
6. Logs documenting filter changes on respirators, HEPA vacuums, negative pressure ventilation units, and other engineering controls.

F. At the completion of the project. The contractor shall submit the following:

1. Contractor's report detailing the work that was completed and the procedures that were used.
2. Contractor's air sampler's report summarizing the results of all exposure monitoring that occurred.
3. A complete set of the contractor's daily logs and waste shipment records.

2.02 ALTERNATE PROCEDURES AND VARIANCES

A Variance to the Work Practices may be requested by submitting a written proposal to the GSA Environmental Engineer a minimum of 20 calendar days before the commencement of work. The written proposal shall include a detailed description of the procedure(s) to be used in lieu of the requirements described herein. The Environmental Engineer will notify the applicant in writing of it decision to either grant or deny the variance within 20 calendar days of receipt of the request.

2.03 NOTIFICATION FORM

Contractor shall complete and submit the following Notification Form **at least 10 working (14 calendar days** to the Project Manager, the Property Manager, and to the Regional Environmental Engineer.

Notification of Asbestos Demolition and/or Renovation

General Services Administration
Region 5
Chicago, IL 60604

1. TYPE OF NOTIFICATION: (circle one) Original Revision Cancellation

2. FACILITY INFORMATION (provide names and phone numbers):
GSA Project Manager: _____
GSA Property Manager: _____
GSA Regional Environmental Engineer: _____
GSA's A/E Project Manager: _____
GSA's Government Environmental Consultant: _____
GSA Emergency Contact: _____

3. REMOVAL CONTRACTOR INFORMATION:
Company name and Address: _____
City, State, and zip code: _____
Name of contact and phone number: _____

4. FACILITY DESCRIPTION:
Building Name and GSA Building Number: _____
Street Address: _____
City, State, and zip code: _____
Building size: _____ Number of Floors: _____ Age of Building: _____
Current Use of Building: _____
Tenants that may be impacted: _____

5. DESCRIBE THE PROCEDURES THAT WERE USED TO VERIFY THE PRESENCE OF ASBESTOS CONTAINING MATERIAL: _____

6. WASTE INFORMATION, Provide Company, contact name, and phone no:
Waste Transporter: _____
Waste Disposal Site: _____
Estimated Quantity of Asbestos Containing Waste: _____

7. LIST THE APPROXIMATE QUANTITIES OF ASBESTOS TO BE REMOVED:

Friable ACM:

Component Quantity

Category I Non-Friable ACM (packings, gaskets, resilient floor coverings and adhesive mastics, and asphalt roofing products):

Component Quantity

Category II, Non-Friable ACM (all other Non-Friable ACM)

Component Quantity

8. SCHEDULED REMOVAL DATES:

Start Date_____ Completion Date: _____

Scheduled Working Hours: _____

9. PROVIDE A DESCRIPTION OF THE PLANNED ASBESTOS METHODS TO BE USED:

10. PROVIDE A DESCRIPTION OF THE ENGINEERING CONTROLS THAT WILL BE USED TO PREVENT THE EMMISSIONS OF ASBESTOS DURING THE PROJECT:

11. CONTRACTOR'S CERTIFICATION:

"I certify that a trained individual, licensed as a Contractor Supervisor, in the State where the work is being performed, and who satisfies the requirements of a Competent Person will be on site at all times when any asbestos related work is occurring.

Name, title, and Signature of Contractor Date

PART 3 - PROCEDURES

3.01 WORK PLACE ENTRY AND EXIT PROCEDURES

A. Personnel Entry and Exit Procedures. All of the following procedures shall be printed and posted in the Clean Room of the Worker's Decontamination Enclosure System by the contractor. These procedures shall be enforced by the contractor and shall be followed throughout the abatement project until clearance air monitoring has been performed and the area has passed final clearance.

1. All personnel and authorized visitors shall enter the work area through the Worker's Decontamination Enclosure System.
2. All personnel who enter the work area shall sign the entry log, located in the clean room, upon entry and exit.
3. All personnel, before entering the work area, shall read and be familiar with all posted regulations, personal protection requirements, and emergency procedures.
4. For entry into the work area, all personnel shall proceed first to the Clean Room, remove all clothing and don respiratory protection, disposable coveralls, head covering and foot covering. Clean respirators and protective clothing shall be provided by the contractor and utilized by each person for each separate entry into the work area.
5. Personnel wearing designated personal protective equipment shall proceed from the Clean Room, through the Shower Room and the Equipment Room, into the work area.
6. Before leaving the work area, all personnel shall remove gross debris from the outside of respirators and protective clothing by brushing and/or wet cleaning procedures. Each person shall clean the bottoms of protective footwear immediately prior to entering the Equipment Room.
7. Personnel shall proceed to the Equipment Room where all protective equipment, except for the respirator, shall be removed. Disposable clothing shall be placed in labeled containers for disposal.
8. Reusable contaminated footwear (i.e. steel-shanked rubber boots) and hand tools shall be stored in the equipment room when not in use.
9. Still wearing respirators, personnel shall proceed to the Shower Room, clean the outside of the respirator and the exposed face area under the shower's running water prior to removal of the respirator, and then shower and shampoo to remove residual debris.
10. After showering and drying, personnel shall proceed to the Clean Room and don street clothes, if leaving the work site, or a clean set of disposable clothing for re-entry to the work area.

B. Contractor shall clearly mark exits from the work area.

3.02 BUILDING PROTECTION

A. The areas outside of the work area shall be protected at all times. The use of negative pressure in the work area is one measure of protection that the contractor shall maintain.

1. A negative air pressure differential of at least 0.02 inches of water column, relative to ambient outside ambient air pressure, shall be maintained at all times

through out the contained area during the work to ensure that air inside of the work area does not filter back and enter the building's spaces outside of the work area. Instrumentation, such as a manometer (with a readable tape) for measuring the pressure differential shall be provided and maintained by the contractor for each work area.

2. Once the contained area is established, the negative air pressure system shall operate continuously, 24 hours a day, until final air clearance criteria has been met.
3. Airborne fiber concentrations in building spaces adjacent to the contained work area shall not exceed 0.01 fibers per cubic centimeter (f/cc) or background levels, which ever is greater, as determined by phase contrast microscopy. Work shall immediately cease in the work area if the airborne fiber concentrations in building spaces adjacent to the work area exceed this amount. Remedial action, such as wet cleaning, shall be taken to reduce the airborne fiber concentrations.
4. The contractor shall be responsible for cleaning spaces outside and adjacent to the work area where airborne fiber concentrations exceeded 0.01 f/cc or back ground levels, which ever is greater.

B. The contractor shall install and operate a sufficient number of filtration machines to completely change the air in the work area at least four times per hour. The contractor shall submit verification that the intended machines will be sufficient. Contractor shall also have on site one spare filtration machine for each five machines (or fraction thereof) that are planned to be used on the project.

3.03 WORK AREA PREPARATION

A. The contractor shall perform the following steps, in the order that they appear, to prepare the work area:

1. Establish the work area (s) with the placement of Separation Barriers. These barriers, such as temporary walls, ceilings, and floors that are necessary for enclosing the work area, shall be erected and inspected and approved by the Government's Environmental Consultant prior to performing any other work.
2. Demarcate the Regulated Area and post appropriate signs.
3. Post Caution Signs meeting the requirements of OSHA 29 CFR 1926.1101 (k) (6) at each location and at approaches to locations where airborne fiber concentrations may exceed 0.01 f/cc or background levels, whichever is greater. Caution signs shall be posted to permit a person to read the sign and then take the necessary protective measures in order to avoid personal exposure before entering a work area.
4. Shut Down and Lock Out electric power to the work areas. "Shut Down and Lock Out Power" means to switch off every electrical circuit breaker serving power or lighting circuits which run to, or through, the work area. Label circuit breakers with tape over the breakers with the notation "DANGER, Circuit being worked on" Lock the electrical panel or door with separate locks, one for the contractor's supervisor and one for the Property Manager/Project Manager.
5. Provide temporary power and lighting to the work area. Power to and for the work area shall be brought in from outside the area through ground-fault circuit interrupters at the source.
6. Shut down and isolate heating, cooling, and ventilation air systems to prevent dispersal of dust and fibers from the work area into other areas of the building.
7. Seal off all openings to windows, corridors, doorways, skylights, ducts, grills, diffusers, and any other penetrations of the work areas, with six mil plastic or

equivalent sheeting sealed with tape. Also seal seams in system components that pass through the work areas.

8. For work areas where friable ACBM is present in the proposed contained area, the following shall be conducted by the contractor:
   a. Clean moveable objects within the proposed work area using HEPA filtered equipment and/or wet cleaning methods and remove the objects from work areas to a temporary location.
   b. Upholstered furniture and drapes shall be twice cleaned before removal from the work area.
   c. Carpeting shall be removed and disposed as asbestos-containing waste material unless the carpets are separated from the work area by being covered with two layers of six mil poly or equivalent and one sheet of 7/16" thick plywood.
   d. Clean fixed objects and items which will remain in the work area using HEPA filtered vacuums and/or wet wiping methods. After cleaning, the contractor shall cover the objects with one layer of six mil plastic or equivalent.
9. For areas where no friable ACBM is present and the abatement work consists of nonfriable ACBM only, the following shall be conducted by the contractor:
   a. Remove all moveable objects from the proposed work area.
   b. Wrap all fixed objects which will remain in the work area with a minimum of six mil poly or equivalent.
10. Clean the proposed work area using HEPA filtered vacuums and/or wet wiping methods. Dry sweeping and the use of non-HEPA filtered vacuums is prohibited. Asbestos Containing Material shall not be disturbed during cleaning or work area preparation.
11. Construct the Worker's Decontamination Enclosure System and ensure that there is hot and cold running water in each shower enclosure and that the water temperature is controllable by the shower user.
12. Cover the floors and walls of the proposed work areas with plastic sheeting sealed with duct tape. Us a minimum of two layers of six mil plastic or equivalent on the floors (no plastic on the floors is required when the project includes removal of the flooring and or flooring adhesive mastic) and two layers of four mil plastic sheeting or equivalent on walls. Cover floors first so that plastic extends at least 12 inches up the walls, then cover walls with plastic sheeting to the floor level, thus overlapping the floor plastic by a minimum of 12 inches. Seams shall be staggered.
13. Remove and clean ceiling mounted objects such as light fixtures, electrical tracks, ventilation equipment, and other items that were not previously sealed off, that interfere with the work.
14. In areas where suspended ceiling tiles are present in areas where friable asbestos is to be removed, the ceiling tiles are to remain in place until the entire work area has been sealed, all of the negative air filtration systems are in place, and the Decontamination Enclosure Systems have been erected and are functioning.
15. In areas where no friable asbestos is present in the work area, suspended ceiling tile systems may remain in place in the work area if they are separated from the proposed work by a barrier consisting of a minimum of one layer of six mil poly or equivalent. This application is allowable in work areas where resilient flooring materials are being removed.
16. In areas where no friable asbestos is present in the work area, suspended ceiling tiles may be removed from the proposed work area and temporarily stored in and then reinstalled after final air clearance criteria has been satisfied.

17. Maintain emergency and fire exits from the work area. Spray paint the wall plastic with red paint using arrows to indicate the direction to the exits from the work area. Each wall of the containment area must have a directional arrow painted on it. After the wall plastic is removed, paper signs with red arrows shall be affixed to each interior wall showing the direction to the work area exits.
18. Dispose of debris and materials inside the work area, such as spray cans, tape rolls, rags and towels, and plastic, as asbestos containing waste. Wet wipe reusable items such as tool and equipment, and seal them in six mil plastic prior to removing the items from the work area.

B. If at any time water, visible emissions or breaches in the containment are detected, the work inside of the work area shall cease until the source of the emissions or the breeches are repaired.

C. The contractor shall perform the following steps to prepare exterior work areas:

1. 6 mil plastic sheeting shall be placed over the ground, foundation, or other surfaces below or adjacent to the abatement area.
2. Unauthorized entry shall be prevented by using appropriate barriers, such as warning tape, fencing, or other suitable barriers.
3. Nearby air intakes, grilles, windows, and other openings into adjacent building interior areas not being demolished above, below, or beside the work area that could be exposed to released airborne dust shall be closed or otherwise sealed off with poly and tape.
4. All electric power in the work area shall be protected with Ground-Fault Circuit Interrupters.

3.04 WORKER DECONTAMINATION ENCLOSURE SYSTEM

A. Contractor shall erect and maintain at least one Worker Decontamination Enclosure System shall for each work area that does not utilize a remote decontamination Enclosure System.

1. The contractor shall construct and maintain in good working order a Worker Decontamination Enclosure System (WDES) in accordance with the following:
2. Each WDES shall be provided at all locations where workers will enter and exit the work area. The WDES shall be constructed out of metal, wood, or plastic supports as appropriate or a portable packaged unit may by used.
3. WDES constructed at the work site consisting of plastic sheeting installed over a framework shall utilize six mil opaque polyethylene or equivalent strength sheeting.
4. The WDES shall consist of the following (from “dirty” side to “clean” side):
   a. Curtained Doorway
   b. Equipment Room
   c. Curtained Doorway
   d. Airlock
   e. Curtained Doorway
   f. Shower Room
   g. Curtained doorway
   h. Airlock
   i. Curtained Doorway
   j. Clean Room
   k. Curtained Doorway

5. The length of each air lock in the WDES shall be a minimum of three feet.
6. The Clean Room shall be sized to accommodate the clothes and equipment of the work crew. Benches shall be provided, as well as hooks for hanging up street clothes. Clean disposable clothing, fresh new respirator filters, a supply of towels and other necessary items shall be provided in this area by the contractor. A lockable door shall be used to permit access into the Clean Room from outside of the work area. The Clean Room shall not be used for storage of tools, equipment, building materials or as office space.
7. The Shower Room shall contain one or more showers to accommodate the workers. Each shower head shall be supplied with hot and cold water adjustable at the tap. The shower enclosure (s) shall be constructed to ensure against leakage of any kind. Soap, shampoo, and clean towels shall be supplied by the contractor and shall be available at all times. Shower water shall be drained, collected, and filtered through a system with at least 5.0 micron particle size collection capability. Filtered waste water shall be discharged to a sanitary sewer.
8. The Equipment Room shall be used for the storage of equipment and tools at the end of each work shift following removal of gross debris.

B. The contractor shall maintain the WDES in a well lit, clean, and hygienically acceptable state at all times.

3.05 REMOTE DECONTAMINATION ENCLOSURE SYSTEM

A. The use of a Remote Decontamination Enclosure System is restricted.

1. A remote Worker or Equipment Decontamination Enclosure System may be used ONLY when the proposed asbestos abatement work includes ONLY removal of nonfriable ACBM using methods that will not cause the material to become friable. A remote Decontamination Enclosure may also be used during glove bag removal provided that the glove bag work is contained in a mini enclosure. Remote Decontamination Enclosures may ONLY be used if the occupied portion of the building is separated from the work areas and from the remote Decontamination Enclosure System by “Separation Barriers”.
2. Worker access to the contained area shall be through an air lock with a curtained doorway at each end.
3. The construction of the Remote Decontamination Enclosure System shall be identical to the Worker’s Decontamination Enclosure System.
4. The following procedures shall be used with a Remote Decontamination Enclosure System:
5. Workers and authorized visitors shall don respiratory protection and two pairs of protective disposable coveralls (double-suiting) prior to entering the contained work area.
6. After completing work or upon leaving the contained work area, the worker shall remove gross debris by vacuuming with a HEPA filtered vacuum or wet methods, enter the air lock, remove the outer suit and place it in a labeled waste container in the air lock.
7. Still wearing the “inner” suit and respiratory protection, the worker shall either proceed to another contained work area and don a second suit and enter the area or; proceed to the Remote Decontamination Enclosure System.
8. A HEPA filtered negative air machine shall be placed inside of or attached with a hard surface duct to, the Equipment Room of the Remote Decontamination

Enclosure System. The exhaust of this machine shall be to outside of the building using a hard surface duct.

9. The Remote Decontamination Enclosure System shall be an area that is subject to final clearance air sampling "Clearance". Following the work, the Remote Decontamination Enclosure System shall be cleaned in a manner identical to and consistent with the cleaning and settling periods that shall be utilized in all other work areas. During final air clearance sampling, a minimum of one clearance air sample shall be collected from the Equipment Room of each Remote Decontamination Enclosure System.

B. The contractor shall maintain the Remote Decontamination Enclosure System in a well lit, clean, and hygienically acceptable state at all times.

3.06 EQUIPMENT DECONTAMINATION ENCLOSURE SYSTEM

A. An Equipment Decontamination Enclosure shall be erected at each project in which a Worker's Decontamination Enclosure System is erected, for each homogeneous work area. Construction of the Equipment Decontamination Enclosure System shall be identical to the Worker's Decontamination Enclosure System.

B. The EDES shall consist of the following (from "dirty" side to "clean" side):

1. Curtained Doorway
2. Wash Room
3. Curtained Doorway
4. Airlock
5. Curtained Doorway
6. Holding Area
7. Curtained doorway

C. The curtained doorway on the airlock at the Holding Area shall include a rigid (7/16" plywood, minimal) lockable door.

3.07 SEPARATION BARRIERS

A. Separation Barriers may be erected in order to enclose a work area (a work area wall that divides an unoccupied space, such as a mechanical room or the perimeter of several unoccupied rooms). The intent of this type of Separation Barrier is to reduce the volume of the work area in unoccupied areas of the building. If the barrier is designed to separate occupied areas from the work area, the Separation Barriers shall be Secure Separation Barriers.

1. The Separation Barrier shall be a rigid barrier that is erected in a building space to reduce the volume of a work area, such as erecting a barrier along the perimeter of a series of rooms in order to remove materials from windows without making the entire room a work area.
2. This type of Barrier SHALL NOT be used to separate occupied areas of the building from the work area. This type of Separation Barrier shall be of ½ inch minimum thickness plywood gypsum board or similar sheathing material with suitable framing to support the Separation Barrier. The seams and edges of the Separation Barrier shall be caulked and the work area side of the Separation Barrier shall be covered with two layers of six-mil plastic sheeting equivalent.

B. The Secured Separation Barrier is intended to prevent the possible access by building occupants into areas where project activities will occur. A Secured Separation Barrier **shall not** be used as a containment area barrier. The Secured Separation Barriers shall be constructed of ½ inch minimum thickness plywood, gypsum board, or similar sheathing material with sufficient framing to support the barrier.

1. The Secured Separation Barrier shall extend from the floor to within 6 inches of the ceiling.
2. Access through the Secured Separation Barrier shall be through a lockable door installed in the barrier.

3.08 MAINTENANCE OF DECONTAMINATION ENCLOSURE SYSTEM AND WORK PLACE BARRIERS

A. Enclosure systems and barriers shall by inspected be the contractor's Competent Person at least four times per work shift and the inspection shall be entered into the contractors daily log.

1. Following the completion of the construction of Separation Barriers, Decontamination Enclosure Systems, after containment area plastic has been installed, and after negative air pressure systems have been operating, the contractor shall allow a minimum of four hours settling time to ensure that the barriers and the plastic sheeting will remain intact and secured before beginning the disturbance of ACBM. The negative air pressure equipment shall be in operation during this settling time.
2. All polyethylene barriers inside of the work area, in the Decontamination Enclosure Systems, and the Separation Barriers, shall be inspected by the Contractor and the Government's Environmental Consultant at least twice during each work shift. The barriers separating the work area from other areas of the building shall be visually inspected prior to commencing work each day. Inspections and observations shall be documented in the contractor's log book.
3. Damage and defects in the enclosure system shall be repaired upon discovery.
4. Smoke tubes shall be used by the contractor to test the effectiveness of the work area barriers before abatement work begins and at least once a day thereafter until the work is completed. The Government's Environmental Consultant shall observe the smoke tube test. Result of the smoke tube test shall be documented in the contractor's log book.
5. At any time during the abatement activities after barriers have been erected, if visible emissions are observed outside of the work area or if damage to the barriers is observed, work shall stop and the contractor shall perform repairs to the barrier. Following repair, the contractor shall clean up residual debris using HEPA vacuuming and wet wiping procedures prior to resuming abatement activities.
6. The contractor shall HEPA vacuum or wet clean the Equipment and the Worker's Decontamination Enclosure System at the end of each shift of abatement activities.
7. If air samples collected outside of the work area during abatement activities indicate airborne fiber concentrations greater than 0.01 f/cc or background concentrations, which ever is greater, as determined using phase contrast microscopy, work inside the work area shall cease for investigations and repair. The contractor shall clean up areas where the outside concentrations were a concern using HEPA vacuum or wet methods. Abatement activities may not

resume in the work area until the outside area concentrations return to below 0.01 f/cc or background concentrations.

8. Negative pressure ventilation equipment shall be installed and operated to provide a minimum of four air changes in the work area every hour. Openings made in the enclosure system/barriers to accommodate these units shall be made air tight with tape and or/caulking. Negative pressure ventilation units shall be exhausted to the outside of the building away from occupied area. Exhaust ducts that are in the building but not in occupied areas of the building (on the working side of a Separation Barrier) shall be rigid and sealed with a minimum of six mil plastic sheeting or equivalent. Exhaust duct in occupied areas must also be rigid and sealed with a minimum of six mil plastic sheeting or equivalent and separated from the occupied area by a Secure Separation Barrier. This Secure Separation Barrier shall allow for visual inspection and repair of the duct as necessary.
9. Contractor shall maintain emergency exits from the work area.
10. Contractor shall maintain adequate fire fighting equipment in the work areas. The locations of fire fighting apparatus in the work area shall be clearly indicated by red spray paint on the plastic wall sheeting or with appropriate signage.

B. The contractor shall repair breeches in the Separation Barriers as soon as they are discovered.

3.09 COMMENCEMENT OF WORK

A. The contractor shall not begin disturbing ACMB until the following tasks have been completed and verified by the GSA Property Manager, Project Manager, the Regional Environmental Engineer and/or the Government's Environmental Consultant.:

1. Enclosure Systems shall be constructed and tested.
2. Approved submittals that are required by this Project Specification, notifications, postings, and copies of permits shall be provided.
3. All equipment for abatement, cleanup and disposal shall be on hand on site.
4. All workers shall have documentation of current licenses, refresher training, and fit test.
5. All arrangements for building security have been met in a manner that is satisfactory with the Property Manager.
6. The contractor has a copy of the Notification To Tenants.

B. The contractor shall indicate in the project's daily log that the required tests have been performed and that the required approvals have been received.

3.10 REMOVAL PROCEDURES

A. The contractor shall remove friable ACBM in accordance with the following procedures:

1. ACBM shall be wetted with an amended water solution using equipment capable of providing a fine spray mist in order to reduce airborne fiber concentrations when the material is disturbed. The material shall be saturated to the substrate; however, excessive amounts of water shall not be allowed to accumulate in the work area. Removed material shall be kept wet enough to prevent fiber release until the material is containerized for disposal.

2. Saturated ACBM shall be removed and containerized before moving to a new location for continuance of work. Surrounding areas in the work area shall be periodically sprayed and maintained in a wet condition until visible material is cleaned up.
3. Material that is removed from building structures or components shall not be dropped or thrown to the floor. Material shall be removed as intact sections whenever possible and carefully lowered to the floor. Materials that are more than 15 feet above the ground may be containerized at elevated levels and placed into inclined chutes that do not allow dust to escape and are entirely inside the work area, for subsequent collection and containerization.
4. Containers (six mil polyethylene or equivalent labeled bags or labeled drums) shall be sealed when full. ACBM shall be double bagged when polyethylene bags are used. Double bagging shall take place in the work area where the material is containerized. Bags shall not be overfilled. While in the work area, the double bagged waste containers shall be sealed to prevent accidental opening and leakage by tying the tops in an overhand knot or by taping in gooseneck fashion. Bags shall not be sealed with wire or cord. Waste Bags may be placed in drums for staging and transportation to the landfill. The exterior surface of the outermost bag shall be decontaminated by wet cleaning before being placed in the transportation container.
5. Large components shall be wrapped in two layers of six mil polyethylene or equivalent sheeting, secured with tape and labeled as asbestos containing waste, prior to decontamination and transport to the landfill.
6. Asbestos containing material with sharp edged components (e.g. nails, screws, metal lathe, metal sheeting, and metal ceiling components) shall be placed in drums for disposal.
7. After ACBM has been removed from a building component, that building component shall be wet brushed and sponged to remove residual debris.

B. For glovebag work, follow the procedures included in Section 3.14

3.11 CLEAN-UP PROCEDURES

A. The contractor shall perform the cleanup in accordance with the following procedures:

1. The negative pressure ventilation units shall remain in continuous operation.
2. Decontamination Enclosure Systems shall remain intact and fully functional.
3. Visible accumulations of ACBM and asbestos containing waste/debris shall be containerized and removed from the work area.
4. Containerized waste shall be removed from the work area and from the Holding Room of the Equipment Decontamination Enclosure on a daily basis. The contractor may temporarily store containerized asbestos containing waste in metal locked dumpsters or in an enclosed truck at the work site. At the conclusion of the project, the temporarily stored waste shall be removed from the site and transported directly to a landfill approved to receive asbestos containing waste.
5. The contained area shall be cleaned in accordance with the following sequence:
   a. FIRST CLEANING: Surfaces in the contained area shall be wet cleaned using rags, mops and sponges. First cleaning can not start until after visible accumulations of asbestos debris and containerized waste have been removed from the work area.
   b. FIRST WAITING PERIOD: Following the First Cleaning, no work shall occur in the work area for a minimum of 12 hours.

c. SECOND CLEANING: At the conclusion of a minimum of 12 hour waiting period, and if no standing water is visible in the work area the first (innermost) sheet of plastic shall be carefully removed. The second (remaining) sheet of plastic shall be wet cleaned.

d. SECOND WAITING PERIOD: Following the Second Cleaning, no work shall occur in the work area for a minimum of 12 hours.

e. THIRD CLEANING: At the conclusion of a minimum of 12 hour waiting period, and if no standing water is visible in the work area the remaining sheet of plastic shall be carefully removed leaving only the Critical Barriers (seals over the doors, windows, and other penetrations) in place. The surfaces in the area shall be wet cleaned.

f. THIRD WAITING PERIOD: Following completion of the Third Cleaning no work shall occur in the work area for a minimum of 12 hours.

g. At the conclusion of a minimum of 12 hour waiting period, and if no standing water is visible in the work area, Final Air Clearance Sampling may be initiated. If visible accumulations of ACBM or asbestos containing waste are discovered or detected in the work area after the third waiting period, the Cleanup Procedures shall be repeated starting with the Third Cleaning.

B. The contractor shall provide 24 hours notice prior to starting the cleaning and waiting sequence in anticipation of final air clearance sampling.

3.12 CLEARANCE AIR SAMPLING AND ANALYSIS

A. Clearance Air Sampling shall be performed by an independent Air Sampling Professional. This person shall not be employed by the contractor as a subcontractor and shall be under the direction of the GSA.

1. Following completion of removal and following Clean-up Procedures in each area, the contractor shall notify the GSA Project Manager or the Government's Environmental Consultant, that an area is ready for clearance air sampling.
2. Clearance Air Monitoring shall be "aggressive" and shall be conducted in accordance with Asbestos Hazard Emergency Response Act (AHERA, 40 CFR Part 763). Clearance samples shall be analyzed using Phase Contrast Microscopy.
3. A minimum of **FIVE** samples shall be collected from each work area that does not exceed 5,000 square feet, one additional sample shall be collected from the Equipment Room of each Worker Decontamination Enclosure System, a second additional sample shall be collected from the Wash Room of the Equipment Decontamination Enclosure System and one additional sample shall be collected for each 10,000 square feet of work area greater than 50,000 square feet (An example work area of 62,000 square feet would have 5 work area samples, one WDES sample, one EDES, one sample for 50,000 to 60,000 square feet and one sample for 60,000 to 62,000 square feet for a total of 9 work area samples).
4. A minimum of 400 liters of air shall be collected for each clearance air sample on 25 millimeter cassettes with cowl extensions at a flow rate of between 0.5 and 2.5 liters per minute.
5. Sample analysis shall be conducted in accordance with NIOSH Method 7400.
6. If the results of EVERY clearance sample are less than 0.01 fibers per cubic centimeter (f/cc), then clearance criteria has been met. If the results of every clearance sample are not less than 0.01 f/cc, the clearance event fails and the contractor shall proceed to repeat the cleanup sequence.

7. For work areas that contain less than 100 square feet and on projects that employee mini containments and remote decontamination enclosures, a total of two samples shall be collected from inside each mini containment and one from each remote decontamination enclosure (An example area may be 2 samples in each of four glove bag mini containment areas, one sample in the remote Decontamination Enclosure System, and one sample in the Waste Storage Area for a total of 10 clearance samples). If any one sample from a mini containment fails (is equal to or greater than 0.01 f/cc) that mini containment fails and the cleanup process shall be repeated in that mini enclosure.

B. Areas that fail Final Clearance Air Monitoring, the cleanup and wait periods will be repeated.

3.13 DISPOSAL PROCEDURES

A. Asbestos Containing Waste.

1. Asbestos containing waste shall be containerized in the immediate area and as soon as possible as it is removed.
2. Contractor shall decontaminate the exterior surfaces of the containerized waste and placed in the holding area of the Equipment Decontamination Enclosure System.
3. Containerized waste shall be washed in the Equipment Decontamination Enclosure System. If the Decontamination Enclosure System exits to outside the building, the containerized waste shall be placed in a lockable dumpster or vehicle. If the Decontamination Enclosure System DOES NOT exit to outside the building, the containerized waste shall be placed in a rubber hand cart with a cover that totally covers the containerized waste. The cart shall not be opened until a worker has moved the cart into a designated waste storage area or until a worker pushes the cart out of the building.
4. Containerized waste shall be sealed and labeled and transported to a prearranged disposal location.
5. Dump receipts, Waste Transfer Forms, trip tickets, and/or other transportation documentation shall be delivered to the Project Manager.
6. Dumpsters or enclosed trucks used for storage and transportation of asbestos containing waste shall be constructed of metal and have metal doors and metal tops that can be locked to prevent vandalism, wind dispersion, or other disturbances to the containerized waste. Cargo trucks that are used only for transportation and not for unattended storage of asbestos containing waste need not have metal roofs, walls, and doors.

B. Asbestos Containing Waste shall be sufficiently wetted so that it is saturated until it is transported to the landfill.

3.14 GLOVEBAG PROCEDURES

A. Glovebag procedures may be used for repair or removal of asbestos pipe and fitting insulation using commercially available glovebags of six mil clear polyethylene or equivalent. In lieu of Work Area Preparation, glovebag procedures may used inside of mini-containment. Each mini-containment shall consist of the following:

1. The mini-containment shall have a floor and walls and an airlock (with two curtained doorways.

2. The mini-containment shall be constructed of six mil clear polyethylene or equivalent and it shall be appropriately framed.
3. Projects using mini-containments shall include a Remote Decontamination Enclosure System.
4. Negative air pressure shall be maintained inside of the mini-containment during the glovebag removal work and subsequent clean up.
5. Waste shall leave the mini-containment and be placed inside of a coverable cart (gondola) and hauled from the work area immediately outside of the building to the designated waste truck or dumpster.
6. Clean up inside of the mini-containment shall consist of one cleanup and a minimum 60 minute waiting period to allow the area to dry.
7. A minimum of **FIVE** Clearance Air samples shall be collected and at least one clearance air sample shall be collected from each mini-containment and the Remote Decontamination Enclosure System. A work site with two mini-containments may have two clearance air samples collected from each of the two mini-containments and a fifth clearance air sample collected from the Remote Decontamination Enclosure. A work site with thirty mini-containments will require a minimum of 31 clearance air samples, one from each of the 30 mini-containments and one from the Remote Decontamination Enclosure.
8. Clearance criteria shall be 0.01 f/cc for each mini-containment. Each mini-containment that yields a clearance air sample equal to or exceeding 0.01 f/cc using phase contrast microscopy, shall have failed. Clean up, observation of a sixty minute waiting period, and resampling shall be performed for each mini-containment that failed.

B. Glovebag removal may commence after the Governments Environmental Consultant has inspected and approved each of the mini-containments and the Remote Decontamination Enclosure System. Glovebag work shall commence according to the following:

1. All necessary tools and materials for glovebag removal AND cleanup shall be brought into the mini-containment before the glovebag work begins.
2. Glovebag procedures shall be done by a minimum of two individuals that are licensed in the State that the work is taking place.
3. The licensed workers shall wear full body coveralls and appropriate respirator protection.
4. The glove bag is to be attached to the pipe securely to prevent air transfer.
5. The integrity of each glovebag seal shall be tested using a smoke tube. The contents of a smoking tube shall be injected into the water wand port of the glovebag. With sufficient smoke in the glovebag, it shall be gently squeezed to check for leakage. All leakage shall be sealed with duct tape.
6. The asbestos material inside of the glovebag shall be wetted with amended water.
7. Following the removal or the repair of the insulation material, the unprotected portion of the pipe shall be scrapped with a wire brush. The pipe, the newly exposed cut ends of insulation, tools, and the interior of the glovebag shall be sprayed with amended water.
8. Newly cut insulation ends shall be coated with a bridging encapsulant prior to removing the glovebag.
9. Tools and supplies shall be gathered in one of the glovebag hands and pulled through, thus turning the glove inside out. Twist the inverted glove, tape the glove air tight and sever it mid-seal forming glovebag and a taped “pouch” with tools and supplies that can placed inside of the next planned glovebag.

10. A HEPA filtered vacuum shall be used to evacuate the air from inside of the glovebag.
11. With the glovebag collapsed, and the removed material saturated with amended water and sitting on the bottom of the glovebag, twist the bag, as close to the pipe as possible, several times and seal the twist with duct tape.
12. Slip a six mil polyethylene or equivalent bag around the glovebag while it is still attached to the pipe. Carefully detach the glovebag.

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