State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER	PAGE
ABATMNT08	1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
JO ANN ADKINS
304-558-8802

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
ALL STATE AGENCIES
AND POLITICAL SUBDIVISIONS
VARIOUS LOCALES AS INDICATED
BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
10/15/2007				

BID OPENING DATE: 11/07/2007 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT

**********ADDENDUM NO. 1**********

1. REVISED ABATMNT08 SPECIFICATIONS/CONDITIONS/ PRICING PAGE DATED 10/15/07 IS ATTACHED REFLECTING ONLY THOSE CHANGES QUESTION 7.
2. QUESTIONS AND ANSWERS ATTACHED (2 PAGES).
3. ADDENDUM ACKNOWLEDGEMENT

EXHIBIT 10

REQUISTION NO. ABATMNT08

ADDENDUM ACKNOWLEDGEMENT

I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO M PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

ADDENDUM NO.'S:

NO. 1.....

NO. 2.....

NO. 3.....

NO. 4.....

NO. 5.....

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.

VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.

2. The State may accept or reject in part, or in whole, any bid.

3. All quotations are governed by the ***West Virginia Code*** and the ***Legislative Rules*** of the Purchasing Division.

4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required $125.00 registration fee.

5. All services performed or goods delivered under State Purchase Orders/Contracts are to be continued for the term of the Purchase Order/Contract, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.

6. Payment may only be made after the delivery and acceptance of goods or services.

7. Interest may be paid for late payment in accordance with the ***West Virginia Code.***

8. Vendor preference will be granted upon written request in accordance with the ***West Virginia Code.***

9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.

11. The laws of the State of West Virginia and the ***Legislative Rules*** of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.

12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.

13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this Contract may be deemed null and void, and terminated without further order.

14. **HIPAA Business Associate Addendum -** The West Viginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site **(http://www.state.wv.us/admin/purchase/vrc/hipaa.htm)** is hereby made part of the agreement. Provided that, the Agency meets the definition of a Covered Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division.

2. **SPECIFICATIONS:** Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.

3. Complete all sections of the quotation form.

4. Unit prices shall prevail in cases of discrepancy.

5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.

6. **BID SUBMISSION:** All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications.

SIGNED BID TO:

Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER	PAGE
ABATMNT08	2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
JO ANN ADKINS
304-558-8802

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
ALL STATE AGENCIES
AND POLITICAL SUBDIVISIONS
VARIOUS LOCALES AS INDICATED
BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
10/15/2007				

BID OPENING DATE: ~~11/07/2007~~ ~~BID OPENING TIME~~ ~~01:30PM~~

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT

REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.

.....
SIGNATURE

.....
COMPANY

.....
DATE

REV. 11/96

**********END OF ADDENDUM NO. 1**********

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

ABATMENT08
Specifications/Conditions/Pricing Page

********Complete ALL Pricing Pages********

A. OBJECTIVE:
The purpose of this project is to establish an on-call service, to be used on an as-needed basis, for all West Virginia Agencies and political subdivisions to remove and/or encapsulate Asbestos Containing Materials (ACM).

The Contractor will be responsible to provide all equipment, material, and labor to remove the materials according to the requirements of West Virginia Department of Environmental Protection and Department of Health and Human Resources Asbestos Compliance Division. Upon completion, the vendor will provide clearance report and final report as stated in this document. Most work must be performed after hours or on weekends, or as scheduled with the State of West Virginia project manager.

B. SCOPE OF WORK:
The scope of work will include, but not be limited to, removal of all asbestos or material suspected of containing asbestos materials. Following removal of asbestos, seal ("lockdown") all surfaces from which asbestos was removed. This includes all known or assumed ACM. Upon completion of the removal of known or suspected asbestos material, thoroughly HEPA vacuum and wet-wipe surfaces within the work space, including but not limited to all ledges, ductwork, equipment, floors, and other surfaces if required. The release orders based on the unit prices as submitted, for the life of the contact will authorize work under the Unit Price section. The size and nature of abatement work under the unit price section may vary as needed from small term, short duration jobs to larger more involved full-scale asbestos removal projects as needed and authorized by the State.

Unit prices include all labor, materials, equipment, supplies, transportation, etc. necessary to perform complete projects.

C. MANDATORY REQUIREMENTS:

1. Business must be licensed in the State of West Virginia permitting the entity to engage in an asbestos project.

2. Provide summary of all incidents in which Bidder's firm was cited for noncompliance with West Virginia DHHR regulations within the past 24-months. Provide what corrective action was taken.

3. All work must be done using the best available techniques and materials available.

4. All work is to be performed by personnel with minimum current Class I Asbestos Worker Certification, and under the supervision of an experienced Class II Asbestos Supervisor.

5. Vendor is responsible at the vendor's expense for ensuring that all employees working on State property have passed a criminal background check for security purposes.

6. All work must be performed in accordance with all applicable federal, state and local building codes and regulations and all applicable asbestos regulations.

7. Vendor will maintain storage of all on-site material and equipment in approved locked job box or other storage method approved by the State of West Virginia. The State project manager will approve location of site.

8. Vendor must exercise caution when working around pipes, avoiding standing on, pushing, or otherwise exerting un-due strain on the pipes. Damage to pipe during this project shall be immediately reported and actual costs of repair will be deducted from final payment.

9. Vendor will provide all labor, safety equipment, portable lighting, hoses, tools and other devices or equipment necessary to complete work in a safe and efficient manner.

10. Vendor will be responsible to barricade areas of work to maintain the safety of the public; and to perform all work and procedures as required by DHHR.

11. Vendor will perform other related work as appropriate to insure compliance with all regulations, as well as any additional measures needed to insure there is no asbestos exposure to those working in or near stated areas in the future.

12. Vendor will be responsible for any damages from fiber release occurring during this work, negligence, or accidents caused as a result of employee involvement in this project.

13. All property, private or public, which is disturbed or affected by services provided, will be restored to a condition equal to or better than existed prior to the commencement of work.

14. Such restoration shall include, but not be limited to, re-grading and seeding of areas where grass was planted and growing. Vendor does not have to ensure growth of such seeded areas.

15. Vendor, upon completion, will provide a final report including description of work in all locations, clearance report, waste manifest signed by landfill representative, and all other documents related to this project.

16. Vendor must have a minimum of five years experience in asbestos abatement and provide information of any violations within the past 24 months and corrective action taken.

D. HOLD HARMLESS
To the fullest extent permitted by law, the vendor agrees to defend, pay in behalf of, and

holds harmless the State of West Virginia, its elected and appointed officials, employees and volunteers and others working in behalf of the State of West Virginia, against any claims, demands, suits, loss, including all costs connected therewith, for any damages which may be asserted, claimed or recovered against or from the Vendor, by reason of personal injury, including bodily injury and death; and/or property damage, including loss of use thereof, which arises out of or is any way connected or associated with this contract.

E. INDEMNIFICATION
The Contractor shall hold the State of West Virginia harmless from and indemnify it against all liability, including attorney's fee, which may arise from and accrue directly from the performance of the work or any obligation of the Contractor or failure of the Contractor to perform any work or obligation provided for in the agreement.

F. PAYMENT TERMS
1. Upon completion of work, and before final payment, contractor shall deliver a Project Manual that includes all applicable compliance documentation, clearly describing work completed and other items as outlined in these specifications. Project manual shall be delivered to the designated project manager prior to final payment.

2. Final payment shall be paid upon final completion of all requirements specified within this document.

3. Monthly payments will be allowed based on work completed according to a pre-submitted and approved schedule of values. Ten percent (10%) retainage will be held until final payment is approved.

G. WARRANTIES
All workmanship and materials shall be warranted for a minimum of one (1) year from final acceptance unless manufacturer's standard approved warranty is greater.

H. INQUIRIES
Questions regarding the purchasing process should be submitted in writing to: JoAnne Adkins, Senior Buyer, Department of Administration, PO Box 50130, 2019 Washington St. East, Charleston, West Virginia 25305-0130. Phone: 304-558-8802

I. CANCELLATION: The Director of Purchasing reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied are of an inferior quality or do not conform with the specifications of the Bid and Contract herein.

J. ARBITRATION: Any references made to arbitration or interest for payments due (except for any interest required by State law) contained in this Contract or in any American Institute of Architect's documents pertaining to this Contract are hereby deleted.

K. WORKER'S COMPENSATION: Compliance is required with all rules and regulations of the West Virginia Compensation Commission.

L. INSURANCE REQUIREMENTS: Successful vendor shall furnish proof of coverage of Commercial General Liability Insurance prior to issuance of a Contract. Unless otherwise

specified in the bid documents, the minimum amount of insurance coverage required is $1,000,000. Liability insurance coverage will be considered as primary and not as excess insurance. The vendor will provide thirty (30) clays written notice to the State of West Virginia by registered mail prior to any modification, cancellation, non-renewal or other change in coverage. The policies must be effective prior to the commencement of work and must remain in force until termination of work under this contract. In the event of interruption of coverage for any reason, all work under the contract will cease and will not resume until coverage has been restored.

If at any time during the term of this contract or any extension thereof, any required policies of insurance should expire, or are canceled, it will be the responsibility of the Contractor to furnish to the State of West Virginia a Certificate of Insurance indicating renewal or an acceptable replacement of the expiring policy prior to the expiration or cancellation date so that there will be no lapse in any coverage. State of West Virginia will be named as an additional insured.

1. The vendor must use the applicable counties prevailing wage rates. The schedules can be found on the State of West Virginia website **http://www.West Virginiasos.com**

2. The State of West Virginia will suffer financial loss if jobs are not Substantially Complete within the specified Contract Time. For each calendar day of delay in achieving Substantial Completion, the Contractor shall be liable for and shall pay the Owner $250.00 per day, not as a penalty, but as liquidated damages. For each calendar day of delay in achieving Final Completion the Contractor shall be liable for and shall pay half of the amount of liquidated damages stated above, plus any and all additional fees of the Architect and the Architect's consultants that may accrue. Allowances may be made for delays due to shortages of materials and/or energy resources, subject to proof by documentation, and also for delays due to strikes or other delays beyond the control of the Contractor. All delays and any claim for extension of the Contract Time must be properly documented in accordance with the Contract Documents by the contractor.

BONDS: A Bid Bond, in the amount of five percent (5%) of the total cost of the three bid scenarios, is required with submission of the bid. Bonds may be provided in the form of a certified check, irrevocable letter of credit, or bond furnished by a solvent surety company authorized to do business in the state of West Virginia.

The successful bidder shall furnish a performance bond and labor/material bond for one hundred (100%) percent of the amount of any release from the contract greater than or equal to $25,000.00, prior to issuance of a release order. Bonds may be provided in the form of a certified check, irrevocable letter of credit, or bond furnished by a solvent surety company authorized to do business in the state of West Virginia. A letter of credit submitted in lieu of a performance and labor/material bond will only be allowed for release orders under $100,000. Personal or business checks are not acceptable in lieu of the performance bond or labor/material bond.

LIFE OF CONTRACT: This contract becomes effective on and extends for a period of one year or until such reasonable time thereafter as is necessary to obtain a new contractor renew the original contract. Such "reasonable time" shall not exceed twelve (12) months upon expiration of one (1) year from the effective date of this contract by giving the Chief Procurement Officer thirty (30) days written notice.

CANCELLATION: The Director of Purchasing reserves the right to cancel this contract immediately upon written notice to the vendor if the commodities or services supplied are of an inferior quality or do not conform to the specifications of the bid and contract herein.

OPEN MARKET CLAUSE: The Director of Purchasing may authorize a spending unit to purchase in the open market, without the filing of a requisition or cost estimate, items specified on this contract for immediate delivery in emergencies due to unforeseen causes (including but not limited to delays in transportation or an unanticipated increase in the volume of work).

TIME: Time consumed in delivery or performance is of the essence.

MULTIPLE AWARD CONTRACT: Contracts to be awarded to the lowest three bids meeting requirements of the specifications. Release will be afforded to the lowest bidder first. In the event the lowest bidder is unable to perform the work in the needed time frame, the release order will be offered to the 2nd lowest bidder etc.

ORDERING PROCEDURE: State Agencies shall issue a written contract order for commodities covered by this contract. An approve purchase order number must be forwarded to the vendor as authorization for purchase. All state agencies may use this contract.

LATE PAYMENTS: Payments may only be made after the delivery of goods or services. Interest may be paid on late payments in accordance with the West Virginia Code.

CONTRACT PRICING: Unless otherwise allowed by the Director of Purchasing, price increases will be approved only at the beginning of each renewal period. All adjustments will be made in dollars, not percent. Requests for price increases must be received in writing by the Director at least thirty (30) days in advance of the effective date. Vendors may add products throughout the term of this contract when it is in the best interest of the State. The Director of Purchasing will determine which terms will be added. Price decreases will be "passed through" to the State of West Virginia whenever they become effective.

This contract is for mandatory use by the State of West Virginia Agencies.

GENERAL TERMS AND CONDITIONS FOR CONSTRUCTION PROJECTS

If any real property or structure thereon is provided or improved, this assurance shall obligate the Vendor, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which any State payment is extended or for another purpose involving the provision of similar

services or benefits. If any other goods or services are so provided, this assurance shall obligate the Provider for the period during which it supplies such goods or services.

The Vendor recognizes and agrees that such right to provide property, goods, or services to the State will be extended in reliance on the representations and agreements made in this assurance, and that the State shall have the right to seek judicial enforcement of this assurance. This is binding on the Provider, it successors, transferee, and assignee, or any authorized person on behalf of the Provider.

Any request for changes or corrections to the final contract must be submitted in writing to the Director of Purchasing and Materials Management in order to be considered. The unit prices on all contracts not containing a price adjustment agreement will be considered firm for the life of the contract unless an amendment in writing is agreed to by both parties to the contract.

The State of West Virginia may reject, revoke, or cancel this contract or any part thereof, and, in the absence of provisions for liquidated damages as set forth in the body of this contract, shall have the right to recover any and all damages sustained as the result of the vendor's failure to perform, in whole or in part, the terms and conditions of this contract.

The State may withhold from any remittance due the vendor under the terms and conditions of this contract an amount equal to the damages sustained by such failure of performance on the part of the vendor.

The vendor warrants that all goods and services furnished will be designed, constructed, and performed so as to comply with the William Steiger Occupational Safety and Health Act of 1970, as amended from time to time, and the rules, regulations, and standards issued there under by any applicable governmental authority which as of the date of this agreement will apply to the goods and services furnished hereunder,

The vendor warrants that all chemical substances sold by it to the State of West Virginia comply with and are inventoried or registered pursuant to the requirements of the Toxic Substance Control Act, and rules and regulations issued there under by all applicable governmental authorities.

The vendor shall furnish the State of West Virginia Safety Office with a Material Safety Data Sheet (MSDS OSHA Form 20) disclosing all potentially hazardous substances in any product that the vendor sells or offers for sale to the State of West Virginia. Potentially hazardous substances shall include but shall not be limited to those substances regulated under 29CFR1 910.1200.

It is the intention of the State of West Virginia not to purchase any products that contain asbestos or asbestos components in the equipment or materials to be supplied by the vendor. The vendor warrants that all equipment and materials to be supplied by the vendor under this contract are free of asbestos, except in the extent that such asbestos

is specifically identified in writing by the vendor and specifically accepted in writing by the State.

LICENSING REQUIREMENT
1. The prime contractor who is awarded this contract is responsible for ensuring all subcontractors on this project are appropriately licensed for conducting business with the State of West Virginia.

2. The prime contractor must further notify all subs of their responsibility to register with:

WEST VIRGINIA Tax Department (304) 558-2507
WEST VIRGINIA Employment Security (304) 558-2624
WEST VIRGINIA Workers Compensation (304) 926-5000
Secretary of State (304) 558-6000
WEST VIRGINIA Department of Labor (304) 558-7890

A Contractor License will be issued to subs only after they have registered each of the above agencies.

** ASBESTOS ABATEMENT UNIT PRICES
Bids shall be based on normal working conditions and estimated quantities for unit prices in categories as follows. This Work will be authorized by approved Purchase Orders for the life of the Contract. The Contractor shall respond and be on site within eight (8) hours after notification of an emergency asbestos situation.

Category 1

260 linear feet or less of pipe lagging in the following dimensions:

1 0	One inch pipe, per linear foot	$
1.1	Two inch pipe, per linear foot	$
1.2	Three inch pipe, per linear foot	$
1.3	Four inch pipe, per linear foot	$
1.4	Five inch pipe, per linear foot	$
1.5	Six inch pipe, per linear foot	$
1.6	Seven inch pipe, per linear foot	$
1.7	Eight inch pipe, per linear foot	$
1.8	Nine inch pipe, per linear foot	$
1.9	Ten inch pipe, per linear foot	$
1.10	Eleven inch pipe, per linear foot	$

1.11	Twelve inch pipe, per linear foot	$
1.12	Over twelve inch pipe, per linear foot to 20 inches	$

Category 2

In amounts greater than 260 linear feet pipe lagging in the following dimensions:

2 0	One inch pipe, per linear foot	$
2.1	Two inch pipe, per linear foot	$
2.2	Three inch pipe, per linear foot	$
2.3	Four inch pipe, per linear foot	$
2.4	Five inch pipe, per linear foot	$
2.5	Six inch pipe, per linear foot	$
2.6	Seven inch pipe, per linear foot	$
2.7	Eight inch pipe, per linear foot	$
2.8	Nine inch pipe, per linear foot	$
2.9	Ten inch pipe, per linear foot	$
2.10	Eleven inch pipe, per linear foot	$
2.11	Twelve inch pipe, per linear foot	$
2.12	Over twelve inch pipe, per linear foot to 20 inches	$

Category 3

Provide a price per square foot for the removal of the following types of asbestos materials in amounts of 260 square feet or less:

3.0	Floor tile, per square foot	$
3.1	Floor tile with mastic, per square foot	$
3.2	Spray-on fireproofing, per square foot	$
3.3	Boiler and breeching insulation, per square foot	$
3.4	Storage tank insulation, per square foot	$
3.5	Ceiling or wall plaster, per square foot	$
3.6	Transite type material, per square foot	$
3.7	Roofing shingles, per square foot	$
3.8	Roofing felts per square foot	$
3.9	Roof flashing material, per square foot	$
3.10	Roofing buildup material, per square foot	$
3.11	Ceiling tile, per square foot	$

Category 4

Provide a price per square foot for the removal of the following types of asbestos material in amounts greater than 260 square feet:

4.0	Floor tile, per square foot	$
4.1	Floor tile with mastic, per square foot	$
4.2	Spray-on fireproofing, per square foot	$
4.3	Spray-on fireproofing, greater than 3000 square feet	$
4.4	Boiler and breeching insulation, per square foot	$
4.5	Storage tank insulation, per square foot	$
4.6	Ceiling or wall plaster, per square foot	$
4.7	Transite type material, per square foot	$
4.8	Roofing shingles, per square foot	$
4.9	Roofing felts per square foot	$
4.10	Roof flashing material, per square foot	$
4.11	Roofing buildup material, per square foot	$
4.12	Ceiling tile, per square foot	$

Category 5

Provide a unit price for the following:

5.0	Air samples, each	$
5.1	Landfill disposal, per cubic yard	$
5.2	Set of Air clearances, each	$
5.3	Project Management, per hour	$
5.4	Project Designer, per hour	$
5.5	Inspector/Mgmt. Planner, per hour	$
5.6	PLM (Asbestos Bulk Samples) 48 hour turn-around	$
5.7	PLM (Asbestos Bulk Samples) Rush turn around time	$

Category 6

Provide a price per square foot for the application of a bridging or a penetrating encapsulation in the amount of 260 square feet or less.

6.0	Bridging or a penetrating encapsulation <260 sq. ft.	$

Category 7

Provide a price per square foot for the application of a bridging or a penetrating encapsulation in amounts greater than 260 square feet.

7.0	Bridging or a penetrating encapsulation >260 sq. ft.	$

Category 8

The price for all pipefitting, such as ells, tees, valves, and flanges, shall be based on a factor of 1.5 of the linear foot cost for the appropriate size of pipe involved. Do not price this item independently.

8.0	All pipefitting	**1.5 X LF**

Category 9.

Insulation Unit Prices for Fitting Factors: All ells, tees, flanges, and valves shall be based on a factor of three times the linear foot cost for the appropriate size of the pipe involved.

9.0	All pipefitting insulation	3 X LF

Category 10

INSULATION UNIT PRICES FOR PIPING
(PRICE PER LINEAR FOOT) 260 LF. OR LESS
INSULATION SPECIFICATION: TYPE 1

	Insulation Size	(a) 1/2" thick	(b) 1" thick	(c) 1 1/2" thick	(d) 2" thick
10.0	1/2"	$	$	$	$
10.1	3/4"	$	$	$	$
10.2	1"	$	$	$	$
10.3	1 1/2"	$	$	$	$
10.4	2"	$	$	$	$
10.5	2 1/2"	$	$	$	$
10.6	3"	$	$	$	$
10.7	4"	$	$	$	$
10.8	5"	$	$	$	$
10.9	6"	$	$	$	$

10.10	8"	n/a	$	$	$
10.11	10"	n/a	$	$	$
10.12	12"	n/a	$	$	$
10.13	14"	n/a	$	$	$
10.14	16"	n/a	$	$	$
10.15	18"	n/a	$	$	$
10.16	20"	n/a	$	$	$
10.17	24"	n/a	$	$	$

Category 11

INSULATION UNIT PRICES FOR PIPING
(PRICE PER LINEAR FOOT) MORE THAN 260 LF.
INSULATION SPECIFICATION: TYPE 1

	Insulation Size	(a) 1/2" thick	(b) 1" thick	(c) 1 1/2" thick	(d) 2" thick
11.0	1/2"	$	$	$	$
11.1	3/4"	$	$	$	$
11.2	1"	$	$	$	$
11.3	1 1/2"	$	$	$	$
11.4	2"	$	$	$	$
11.5	2 1/2"	$	$	$	$
11.6	3"	$	$	$	$
11.7	4"	$	$	$	$
11.8	5"	$	$	$	$
11.9	6"	$	$	$	$
11.10	8"	n/a	$	$	$
11.11	10"	n/a	$	$	$
11.12	12"	n/a	$	$	$
11.13	14"	n/a	$	$	$
11.14	16"	n/a	$	$	$
11.15	18"	n/a	$	$	$
11.16	20"	n/a	$	$	$
11.17	24"	n/a	$	$	$

Category 12

Additional Factors
Install.016 smooth aluminum jacketing secured with Y2-inch aluminum bands and clips at 12-inch centers. This is to be applied to the straight pipe in addition to the normal finish where required.

12.0	Factor per square foot at less than 260 sq. ft.	Add	$
12.1	Factor per square foot at more than 260 sq. ft.	Add	$

Category 13

STATE OF WEST VIRGINIA INSULATION UNIT PRICES FOR PIPING (PRICE PER LINEAR FOOT) 260 LF. OR LESS INSULATION SPECIFICATION: TYPE 2

	Insulation Size	(a) 1/2" thick	(b) 1" thick	(c) 1 1/2" thick	(d) 2" thick
13.0	1/2"	$	$	$	$
13.1	3/4"	$	$	$	$
13.2	1"	$	$	$	$
13.3	1 1/2"	$	$	$	$
13.4	2"	$	$	$	$
13.5	2 1/2"	$	$	$	$
13.6	3"	$	$	$	$

Category 14

STATE OF WEST VIRGINIA INSULATION UNIT PRICES FOR PIPING (PRICE PER LINEAR FOOT) MORE THAN 260 LF. INSULATION SPECIFICATION: TYPE 2

	Insulation Size	(a) 1/2" thick	(b) 1" thick	(c) 1 1/2" thick	(d) 2" thick
14.0	1/2"	$	$	$	$
14.1	3/4"	$	$	$	$
14.2	1"	$	$	$	$
14.3	1 1/2"	$	$	$	$
14.4	2"	$	$	$	$
14.5	2 1/2"	$	$	$	$
14.6	3"	$	$	$	$

Category 15

UNIT PRICES PER SQUARE FOOT FOR THE INSULATION OF SQUARE HVAC SUPPLY OR RETURN AIR DUCTWORK, SHALL BE AS FOLLOWS, IN AMOUNTS LESS THAN 260 SQ. FT. USING TYPE 3 INSULATION.

	Insulation Thickness	HVAC SUPPLY & RETURN AIR DUCK
15.0	1 1/2" Thick	$

Category 16

(PRICE PER LINEAR FOOT) MORE THAN 260 LF.
INSULATION SPECIFICATION: TYPE 3

	Insulation Thickness	HVAC SUPPLY & RETURN AIR DUCK
16.0	1 1/2" Thick	$

Category 17

UNIT PRICES PER SQUARE FOOT FOR THE INSULATION OF ROUND OR SQUARE HVAC SUPPLY OR RETURN AIR DUCTWORK SHALL BE AS FOLLOWS, IN THE AMOUNTS LESS THAN 260 SQ. FT. USING TYPE 4 INSULATION.

	Insulation Thickness	HVAC SUPPLY & RETURN AIR DUCK
17.0	1 1/2" Thick	$

Category 18

(PRICE PER SQUARE FOOT) MORE THAN 260 SQ. FT.
INSULATION SPECIFICATION: TYPE 4

	Insulation Thickness	HVAC SUPPLY & RETURN AIR DUCK
18.0	1 1/2" Thick	$

Category 19. Additional Factors

Install.016 smooth aluminum jacketing secured with 1/2 inch aluminum bands and clips at 12-inch centers. This applies to exposed round or square ducts that require Type 3 or

Type 4 insulation,

19.0 Add 2.4 factor per square foot at less than 260 sq. ft.
19.1 Add 2.1 factor per square foot at more than 260 sq. ft.

Category 20.

UNIT PRICES PER SQUARE FOOT FOR THE INSULATION OF BOILERS, TANKS, BREECHING AND THE LIKE SHALL BE AS FOLLOWS, IN THE AMOUNTS LESS THAN 260 SQ. FT. USING TYPE 6 INSULATION. 3 LB. FIBERGLASS W/ASJ OR FSK FINISH

(PRICE PER SQUARE FOOT) 260 SQ. FT. OR LESS
INSULATION SPECIFICATION: TYPE 6

	Insulation Thickness	(a) Shell Surface	(b) Bottom & Horz. Heads	(c) Top Heads
20.0	1" Thick	$	$	$
20.1	1 1/2" Thick	$	$	$
20.2	2" Thick	$	$	$

Category 21.

(PRICE PER SQUARE FOOT) MORE THAN 260 SQ. FT.
INSULATION SPECIFICATION: TYPE 6

	Insulation Thickness	(a) Shell Surface	(b) Bottom & Horz. Heads	(c) Top Heads
21.1	1" Thick	$	$	$
21.2	1 1/2" Thick	$	$	$
21.3	2" Thick	$	$	$

Category 22.

UNIT PRICES PER SQUARE FOOT FOR THE INSULATION OF BOILERS, TANKS, BREECHING AND THE LIKE SHALL BE AS FOLLOWS, IN THE AMOUNTS LESS THAN 260 SQ. FT. USING TYPE 7 INSULATION.

(PRICE PER SQUARE FOOT) 260 SO. FT. OR LESS
INSULATION SPECIFICATION: TYPE 7 Cal-Sil - Canvas or Metal Finish

	Insulation Thickness	(a) Shell Surface	(b) Bottom & Horz. Heads	(c) Top Heads
22.0	1" Thick	$	$	$
22.1	1 1/2" Thick	$	$	$
22.2	2" Thick	$	$	$

Category 23.

PRICE PER SQUARE FOOT) MORE THAN 260 SQ. FT.
INSULATION SPECIFICATION: TYPE 7

	Insulation Thickness	(a) Shell Surface	(b) Bottom & Horz. Heads	(c) Top Heads
23.0	1" Thick	$	$	$
23.1	1 1/2" Thick	$	$	$
23.2	2" Thick	$	$	$

Category 24.

UNIT PRICES PER SQUARE FOOT FOR CEMENTITIOUS FIREPROOFING ON SUPPORT STEEL BEAMS AND FLOOR DECKING SHALL BE AS FOLLOWS, IN THE AMOUNTS LESS THAN 260 SQ. FT.

	Insulation Thickness	FIREPROOFING "MONKOTE" OR EQUAL
24.0	1" Thick	$

Category 25.

SEE SPRAY-ON FIREPROOFING SPECIFICATIONS.
(PRICE PER SQUARE FOOT) MORE THAN 260 SQ. FT.
INSULATION SPECIFICATION:

	Insulation Thickness	FIREPROOFING "MONKOTE" OR EQUAL
25.0	1" Thick	$

MECHANICAL INSULATION

RELATED DOCUMENTS
Drawings and general provision of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

Division-15 Basic Mechanical Requirements and Basic Mechanical Materials and Methods sections apply to work specified in this section.

DESCRIPTION OF WORK
Extent of mechanical insulation required by this section is indicated on drawings and schedules, and by requirements of this section.

PART 2-PRODUCTS

THERMAL AND ACOUSTIC INSULATION
The Contractor shall furnish and install all insulation necessary to the project and in accordance with the following schedule. All insulation and accessories used in an air plenum space, and all duct covering and lining regardless of physical location, shall have a composite (insulation, jacket, & adhesive) fire and smoke hazard rating as tested under procedure ASTM E-84, NFPA 255 & UL 723, not exceeding a flame spread 25 and smoke developed 50. All other areas shall have insulating materials and accessories on pipes and vessels rated at a flame spread 25 and smoke developed 150 as tested by the same procedure. All calcium silicate shall be asbestos free.

SYSTEM SCHEDULE: All insulation material shall conform to the following schedules:

Service	Type	Size	Thickness	Finish
Heating Water	1	4" & Under	1"	A.S.J.
Chilled/Heating Water	1	6" & Over	1 1/2"	A.S.J.
Chilled Water*	1	All Sizes	1"	A.S.J.
	2	1 1/2" & Under	1/2"	*******
Chilled Water Pump	1	*******	1"	F.G.C.
	2	*******	1/2"	*******
Domestic Water	1	All Sizes	1"	A.S.J.
(Hot & Recirculated)	2	1 1/2" & Under Only	1/2"	*******
Domestic Cold Water	1	All Sizes	1	A.S.J.
& Downspouts (New & Existing)	2	1 1/2" & Under Only	1/2"	*******
Steam Condensate (15# & Under)	1	4" & Under	1 1/2"	A.S.J.
Steam Condensate (15# & Under)	1	6" & Over	2"	A.S.J.
Steam Condensate (16# to 55#)	1	1' & Under	1 1/2"	A.S.J.
Steam Condensate (164 to 554)	1	1 1/4" to 4"	2 1/2"	A.S.J.
Steam Condensate (164 to 554)	1	5" and Over	3"	A.S.J.
Feed Water, Pumped Steam Condensate, Blowdown	1	All Sizes	1 1/2"	A.S.J.
Exposed Ductwork	3	All Sizes	1 1/2"	A.S.J.
Concealed Ductwork	4	All Sizes	1 1/2"	F.F.V.
Heat Exchangers	6	All Sizes	2"	F.G.C.
Feedwater Tank, Condensate Pumps & Receivers, Flash Tank, Blowdown Separator, Air Separators	6	All Sizes	2"	F.F.V.
A.C. Condensate Floor Drain Waste Lines	1	All Sizes	1"	A.S.J.
Refrigerant Piping	2	1 5/8" & Under	1/2"	*******
Domestic Hot Water Heater	6	All Sizes	2"	F.G.C.

Reheats Coils in Supply Air Duct Work Aluminum Jacket	3	All Sizes	1 1/2"	A.S.J. &0.016"

Piping installed outdoors to be insulated installed with type 2 insulation.

Insulation Types: Subject to compliance with requirements, provide insulation products of the following:

1. Type (1): Fiberglass pipe insulation as manufactured by Certainteed, Owens-Corning, Knauf, of Manville. Insulation shall be suitable for applications to 650 deg F and shall have a "k" factor of.23 at 75 deg F mean temperature.

2. Type(2): Armaflex Ap elastomeric pipe insulation as manufactured by Armstrong. Insulation shall be suitable for applications from -40 to +220 deg F and shall have a "Ic" factor of.24 at 75 deg F mean temperature. Armaflex insulation shall have a fire/smoke rating of 25/50 under ASTM E84-75.

3. Type (3): Rigid fiberglass duct insulation as manufactured by Manville, Owens-Corning, Knauf or Certainteed. Insulation shall be suitable for applications to 450 deg F and shall have a "k" factor of.24 at 75 deg F mean temperature.

4. Type(4): Flexible fiberglass duct insulation as manufactured by Manville, Owens-Corning, Knauf or Certainteed. Insulation shall be suitable for applications to 250 deg F and shall have a "k" factor of.31 at 75 deg F mean temperature.

5. Type(5): Not Applicable Flexible fiberglass duct liner as manufactured by Manville, Owens-Not Applicable, Corning, Knauf or Certainteed. Insulation shall be coated with a black mat fire resistant coating on the air stream side. Insulation shall be suitable for applications to 250 deg F and shall have a "k" factor of.23 at 75-deg F mean temperature and a density of 2 pounds per cubic foot.

6. Type(6): Flexible board type fiberglass insulation as manufactured by Manville, Owens-Corning or Certainteed. Insulation shall be suitable for applications to 450 deg F and shall have a "k" factor of.35 at 200-deg F mean temperature and a density of 3 pounds per cubic foot.

7. Type(7): Rigid block type calcium silicate insulation as manufactured by Manville, Owens-Corning, or PABCO. Insulation shall be suitable for applications to 800 degrees Fahrenheit mean temperature and a density of 14 lbs. per cubic foot. Jacketing shall be F.G.C. field applied 8.5-oz. glass-cloth lagging.

2.1.Type of Finish:
1. A.S.J. - All service jacket with self-seal lap.
2. F.G.C. - Field applied 8-1/2 oz. Glass cloth lagging.
3. F.F.V. - Foil faced Kraft paper vapor seal, factory applied.

PART 3- EXECUTION

GENERAL

All insulation shall be installed over clean dry surfaces. Insulation must be dry and in good condition. Wet or damaged insulation will no be acceptable. No insulation shall be applied prior to pressure test completion of the respective piping and/or duct system.

PIPE INSULATION:

All pipe insulation shall be installed with joints butted firmly together. All valves and fittings shall be insulated using insulation equal in density and thickness to the adjoining insulation; or with insulation cement equal in thickness to the adjoining insulation or premolded insulated fittings. The insulation applied to the valves and fitting shall be covered with Zeston 25/50 rated PVC fitting covers as manufactured by Manville Corporation. No staple area allowed penetrating the vapor barrier on cold systems unless specified by the Owner. (i.e. chilled water, cold water, down spouts.)

All pipe insulation ends shall be tapered and sealed regardless of services.

All flexible elastomeric insulation shall have all fittings, butt ends, and seams sealed with vapor barrier adhesive.

All insulated, exposed vertical piping within the building, excluding the mechanical equipment rooms, and piping exposed to outdoors shall include a.016" thick aluminum jacket in addition to the normal finish. Vertical piping shall be protected to a height of 8'-0º above the floor. Reheat coils in supply air ductwork shall also have a 0.016" thick aluminum jacket.

DUCT INSULATION:

Rigid duct insulation shall be impaled over welded pins and secured with white insulation caps. All seams shall be firmly butted, staggered, and sealed with white pressure-sensitive vapor-barrier tape. Do not use staples unless specified by Owner.

Wrap around duct insulation shall be applied with all joints butted firmly together. Insulation shall be cemented to the surface with fireproof adhesive applied in 6" wide strips on 12" centers. All joints in the insulation covering shall be sealed with adhesive. Where the duct is over 24" wide, the duct wrap shall be additionally secured to bottom of rectangular or oval ducts with mechanical fasteners on 16" centers to prevent sagging. Vapor barrier shall be legibly printed by the manufacturer to show nominal thickness and type of insulation.

Ductliner insulation shall be applied with joints precoated with adhesive and butted firmly

together. Lining shall be cemented to ductwork with a minimum of 75 percent coverage of fire resistant adhesive. Mechanical fasteners on maximum of 12" centers and adhesive shall be used when

All ductwork in the Mechanical Rooms is to be considered as "exposed ductwork", per schedule in this section, i.e., supply and outdoor air.

Boilers, Vessels, Breeching, ECT Insulation

Rigid or flexible insulation shall be installed with joints staggered and all seams firmly butted together. Insulation shall be secured using 3/4"x. 020 stainless steel bands on 12-inch centers. Where required, weld studs, clips, or angles needed to provide anchors for wires and bands. Insulate and lag using the appropriate type of either six or seven.

APPLICATION NOTES:

See the duct material schedule on building drawings when available for additional insulation information. Armaflex insulation exposed to the outdoors shall be painted, two coats of white Armaflex finish by the insulation contractor. A/C condensate floor drain waste lines to be insulated for a distance of 10'-0" From the floor drain handling the condensate.

SPRAYED-ON FIREPROOFING

PART 1 – GENERAL

SUMMARY
General: Comply with all of the Contract Documents.

QUALITY ASSURANCE
Single Source: Obtain sprayed-on fireproofing materials from a single manufacturer for each different product required.

Fire Performance Characteristics: Provide materials and construction which are identical to those tested for the following fire performance characteristics, according to test method indicated, by UL or other testing and inspecting agency acceptable to authorities having jurisdiction.

1. Fire Resistance Ratings: As indicated by reference to design designation in UL "Fire Resistance Directory" for fire-rated assemblies in which sprayed-on fireproofing serves as direct-applied protection, tested per ASTM E 119.

2. Surface Burning Characteristics: As indicated for each sprayed-on fireproofing product required, tested per ASTM E 84 and listed in UL "Building Materials Directory".

Field-Constructed Mock-Up: Prior to installation of exposed sprayed-on fireproofing, apply each product indicated for exposed applications, in location selected by the Owner, to represent completed work for qualities of appearance, materials, and application.

1. Extent of Mock-Ups: Approximately 100 sq. ft. of surface.

2. Retain mock-ups during construction as standard for judging completed work.

SUBMITTALS

Product Data: Submit manufacturer's product data for each sprayed-on fireproofing product indicated.

Test Reports: Submit the following test reports:

1. Certified test results from an independent testing laboratory indicating compliance of sprayed-on fireproofing products with performance requirements indicated.

2. Acceptance of steel primers by sprayed-on fireproofing manufacturer, based on date submitted by primer manufacturer.

3. Sprayed-on fireproofing manufacturers' certification that their products comply with specification requirements and are suitable for the use indicated.

DELIVERY, STORAGE, AND HANDLING

Deliver products to project site in original, unopened packages with manufacturers' labels identifying products legible and intact. Include on labels names of products and manufacturers, date of manufacturer and shelf life, where applicable. Also include UL labels for fire resistance ratings applicable to project.

Use materials with limited shelf life within period indicated. Remove from project site and discard any materials whose shelf life has expired.

Store materials inside, under cover, or above ground in a manner to keep them dry until ready to use. Remove from project site and discard any materials that have been exposed to moisture or have otherwise deteriorated.

PROJECT CONDITIONS
Environmental Conditions: Do not install sprayed-on fireproofing when ambient or substitute temperatures are 40 deg F and falling, unless temporary protection and heat can be provided to maintain temperatures of both at or above this temperature level for 24 hours before, during and for 24 hours after application of sprayed fireproofing. Ventilate spray fireproofing during and after application until it dries thoroughly.

SEQUENCING:
Sequence and coordinate application of sprayed-on fireproofing with other, related work specified in other sections to comply with the following requirements:

1. Prevent deterioration of sprayed-fireproofing for interior applications due to exposure

to unfavorable environmental conditions.

2. Avoid unnecessary exposure of sprayed-on fireproofing to abrasion and other damage likely to occur during construction operations subsequent to its application.

3. Ensure that sprayed-fireproofing is installed prior to installation of enclosing or concealing work, with sufficient time allowed for inspection, testing and correction of defective fireproofing.

PART 2-PRODUCTS

CONCEALED SPRAYED-ON FIREPROOFING MATERIALS

General: Provide manufacturer's standard products complying with requirements indicated below for material composition and physical properties representative of installed products.

Material Composition: As indicated below:

1 Cementitious Fireproofing: Factory-mixed formulation of inorganic binders and lightweight mineral aggregates mixed with water at project site to form slurry for pumping and for dispersal by compressed air introduced at spray nozzle.

Physical Properties: Minimum values measured per standard test methods referenced with each property, as follows:

1. Bond Strength: 80 lbs. per sq. In. Pr ASTM E 736.

2. Compressive Strength: 3.47 lbs. per sq. In, Per ASTM E 761.

3. Corrosion Resistance: No Evidence of corrosion per ASTM E 937.

4. Deflection: No cracking, spalling, delamination or the like per ASTM F 759.

5. Effect of Impact on Bonding: No cracking, spalling delamination or the like per ASTM E 760.

6. Air Erosion: Maximum weight loss of 0.025 grams per sq. Ft. per ASTM E 859.

7. Dry Density: Values for average and individual densities as required for fire-resistance ratings indicated, per ASTM E 605.

8. Hardness: 0.50 max. Penetration per ASTM C 569.

9. Surface Burning Characteristics: Maximum flame spread and smoke developed values of 10 and 0, respectively.

Products: Subject to compliance with requirements, provide one of the following:

1. Cementitious Fireproofing:

   a. "Monokote", Grace Construction Products Div., W.R. Grace & Co. Or equal. Substitutions must be approved by the State Project Manager prior use.

AUXILIARY FIREPROOFING MATERIALS

General: Provide auxiliary fireproofing materials which are compatible with sprayed-on fireproofing products and substrates, approved for use indicated by manufacturer of sprayed-on fireproofing, and which have been approved by UL or other acceptable testing and inspecting agency for use in fire-resistance rated designs indicated.

Substrate Primers: Type approved by manufacturer of sprayed-on fireproofing for substrate and for conditions of exposure indicated.

Adhesive for Bonding Fireproofing: Type recommended by manufacturer of sprayed-on fireproofing manufacturer.

PART 3-EXECUTION

Inspection:

Require Installer to examine substrates to determine if they are in satisfactory condition to receive sprayed-on fireproofing. A satisfactory substrate is defined as follows:

1. Substrate complies with requirements of the section in which the substrate and related work is specified and is free of oil, grease, rolling compounds, incompatible primers, loose mill scale, dirt or other foreign substance capable of impairing bond of fireproofing with substrate under conditions of normal use of fire exposure.

2. Objects, which will penetrate fireproofing, including clips, hangers, support sleeves and similar items have been securely attached to substrates.

3. Substrates are not obstructed by ducts, piping, equipment and other suspended construction that could interfere with application of fireproofing.

4. For metal roofing decking substrates, application of roofing ahs been completed and roof traffic is prohibited during application of fireproofing and until it has dried.

For steel or other substances suspected of being coated with oil, rolling compounds or other substances not readily identifiable but potentially capable of impairing bond, conduct tests recommended by fireproofing manufacturer to determine their presence and effect on adhesion of fireproofing.

Do not proceed with installation of fireproofing until unsatisfactory conditions have been corrected.

PREPARATION

Clean substrates of substances that could impair bond of fireproofing, including oil, grease, rolling compounds, incompatible primers, and loose mill scale.

Prime substrates where recommended by fireproofing manufacturer, except where compatible shop primer has been applied and is in satisfactory condition to receive fireproofing.

For exposed sprayed-on fireproofing applications, repair substrates to remove any surface imperfections that could affect uniformity of texture and thickness in finished

surface of fireproofing. Remove minor projections and fill voids that would telegraph through.

Cover other work that might be damaged by fall-out or overspray of fireproofing materials during application. Provide temporary enclosure as required to confine spraying operations, protect the environment, and to ensure adequate ambient conditions for temperatures and ventilation.

INSTALLATION

General: Comply with fireproofing manufacturer's instruction for mixing materials, for application procedures and for types of equipment used to convey and spray on fireproofing material; as applicable to the particular conditions of installation and as required to achieve fire-resistance ratings indicated.

Coat substances with adhesive prior to application of fireproofing where required to achieve fire-resistance rating or recommended by fireproofing manufacturer for material and application indicated.

Extend fireproofing full thickness over entire area of each substrate to be protected. Unless otherwise recommended by fireproofing manufacturer, install body of fireproof covering in a single course.

Apply fireproofing in thicknesses and densities indicated but not less than that required to achieve fire resistance ratings designated for each condition, unless greater thicknesses and densities are indicated.

Apply fireproofing materials by sprayed-on method to maximum extent possible. Following spraying operation in each area, complete the coverage by trowel application or other placement method applicable to manufacturer.

For exposed fireproofing provide a uniform matching finish approved for field-erected mock-up.

FIELD QUALITY CONTROL

Testing Laboratory: The right is reserved by spending unit to employ and pay an independent testing laboratory to perform field quality control testing.

Extent and Testing Methodology: Arrange for testing of completed fireproofing in successive stages in areas of extent described below; do not proceed with fireproofing of next area until test results for previously completed work evidence compliance with requirements.

1. Extent of Each Test Area: Not greater than one floor or 10,000 sq. ft., whichever produces the greatest number of test areas.

2. Within each area, testing laboratory shall randomly select a typical bay, and test each fireproofed structural element within it for thickness and density per ASTM E 605.

3. Within each area, testing laboratory shall randomly select one typical structural element of each type and test fireproofing for cohesion/adhesion per ASTM E 736.

Testing Laboratory shall report test results promptly and in writing to Contractor and spending unit.

Repair or replace fireproofing within areas where test results indicate fireproofing does not comply with requirements.

CLEANING, REPAIR AND PROTECTION

Cleaning: Immediately upon completion of spraying operations in each containable area of project, remove over-spray and fall-out of materials from surfaces of other work and clean exposed surfaces to remove evidence of soiling.

Cure exposed cementitious fireproofing materials in compliance with fireproofing manufacturer's recommendations to prevent premature drying.

Protect fireproofing according to advice of fireproofing manufacturer and Installer from damage resulting from construction operations or other causes so that fireproofing will be without damage or deterioration at time of substantial completion.

Coordinate installation of fireproofing with other work in order to minimize the need for other trades to cut or remove fireproofing. As other trades successively complete installation of their work, maintain protection of structure afforded by fireproofing by patching any area that have been removed or damaged prior to concealment of fireproofing by other work.

Repair or replace work that has not been successfully protected.

CONTRACTOR'S REQUIREMENTS

Comply with the provisions of West Virginia Code §16-32-1, et seq. (H.B. 4647 passed March 10, 1988; in effect July 1, 1988 - as amended by the 1993 Legislative session).

The Contractor must make available for viewing at the job site a copy of the OSHA Regulations 19101 and EPA Regulations of Part 61, Sup-Part M governing asbestos stripping procedures.

PROGRESS PAYMENTS

Vendors may submit monthly invoices to the spending unit project representative to bill for progress in completing the project. The billing period is specified as the first day of the month to the last day of the month until completion.

NOTICE TO PROCEED

Contractor must commence abatement activities within 24 hours after date agreed to by the Contractor and spending unit representative or as requested by statutory regulations for notification.

STANDARD OPERATING PROCEDURES

GENERAL

Applicable Laws

All personnel must be thoroughly familiar with and comply with all applicable rules, regulations, and interpretations of the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), the U.S. Department of Transportation (DOT), the U.S. Environmental Protection Agency (EPA) and all other state, federal, county, and other agencies having jurisdiction involving or pertaining to asbestos-containing materials or the stripping, handling, abatement, encapsulation, removal, and disposal of asbestos-contaminated materials, and employment or engagement of persons or entities for any such purpose, and protection of persons or property from asbestos containing materials. The Contractor must comply with all licensing, registration, certification, notification fees, and other similar requirements imposed by any governmental authority and must assure that all subcontractors are similarly in compliance with it.

Project Security

The Contractor is responsible for positive and effective security of the work areas of each project and/or facility. The Contractor must limit entry into all work areas to its

personnel, the Architect or Engineer's authorized representative, authorized spending unit representatives, and Government Regulatory Agency personnel legally entitled to inspect the project. All persons entering the work areas must be properly protected against exposure to asbestos, as provided in those Standard Operating Procedures.

The Contractor's Representatives

The Contractor must appoint a minimum of one person in its office and one person on site, for contact with the spending unit's representative regarding the execution and compliance with contract requirements, including but not limited to, these Standard Operating Procedures, and any other governmental laws and regulations.

Project Log

The Contractor will maintain a daily Project Log for the base bid and any subsequent project. The Log will be used each day of the project to record the following information.

1. Name Project Superintendent and actual time physically on job.

2. Brief description of daily work accomplishments.

3. Listing of all employees and others on the job.

4. Description of any significant events, incidents, or unusual occurrences, including but not limited to, deviations of plans, specifications, contract requirements, or these standard Operating Procedures noted by the spending unit, Engineer, Architect, Inspector, air-sampling technician, or Contractor's Representative, emergencies, accidents or dangerous conditions, and steps taken to assure continued security of the work area.

The log also will be used daily to hold copies of routine inspection reports, results of air sampling and analysis, project minutes, disposal forms, and any other routine documents (including project Purchase Order) relating to project activities. The Owner's representative, immediately upon request, will make the log for any project available for inspection.

At the completion of any subsequent projects, the Contractor must forward a copy of the project log to:

Designated state of West Virginia Project Manager

Visitor's Form

The Contractor will also maintain a project Visitor's Form which will be signed, with date and time by all visitors, including the spending unit, Architect, Engineer, or representatives of the foregoing, private or governmental inspectors, and Contractor's representatives. The Log will make not of all such visitors who, for any reason, enter the

enclosed work area, their reason for entry, date and duration of time in work area, activities in work area, safety precautions used, protective equipment used, etc.

Both the Project Log and Visitor's Form will form a permanent record of each project. The Contractor must retain a copy and a completed copy must be given to the spending unit at the completion of each project.

Definitions

a. Abatement: Procedure to control or otherwise limit fiber releases from asbestos containing or asbestos-contaminated building materials. This includes stripping, removal, encapsulation, disposal, wet cleaning, etc.

b. ACM: Asbestos Containing Material.

c. Aggressive Sampling: An air sampling technique typically used for final clearance air sampling wherein the area and surfaces around the air sample are agitated, brushed, blown with air jets or mechanical fans, or otherwise disturbed in an effort to re-suspend any settled dust and detect the presence of residual asbestos fibers.

d. Air Lock: A system for permitting entrance or exit without permitting air movement between a contaminated area and an uncontaminated area, typically consisting of two curtained doorways at least three feet apart.

e. Air Sampling: The process of measuring the fiber content or particulate mass of specific volume of air at a specific point in time.

f. Amended Water: Water to which an appropriate surfactant has been added. This surfactant must meet the minimum specifications set forth by the EPA.

g. Asbestos Contaminated Material: Any materials, substances, or items containing or coated (no matter how lightly) with asbestos fibers.

h. Asbestos Filtration Device (APD): Filtered exhaust ventilation equipment used for drawing air from inside Enclosed Work Areas. Such equipment must have at least three filter stages, including readily accessible pre-and secondary filters, and a final filter which must be a High Efficiency Particulate Air (HEPA) filter rated 99.97% effective in capturing particles having diameters of 0.3 micrometers or greater.

i. Barrier: Polyethylene sheeting and/or materials which, when used in conjunction with the existing floors, ceiling and walls of the structure, forms the containment area.

j. Enclosed Work Area: The Barrier that separates the contaminated work environment from the uncontaminated area in which abatement work is performed.

k. Clean Room: An uncontaminated area or room outside the Enclosed Work Area and part of the Work Area Insulation Structure, with provisions for storage or worker's street clothes and protection equipment.

l. Curtained Doorway: Device to allow entrance or exit from one room to another while

restricting air movement between the rooms. Typically constructed by placing three overlapping sheets of polyethylene film over an existing or temporarily framed doorway, securing all sheets along the top of the doorway, securing the vertical edge of the outside sheet along one vertical side of the doorway, the second sheet along the doorway vertical edge opposite the first, and the third sheet around the entire doorway (including base). The third sheet must be slit down the center to within one foot of each end to facilitate access by personnel. Two "Curtained Doorways" should be spaced a minimum of three feet apart to form an "Air Lock".

m. Disposal: All specified procedures necessary to transport and deposit the asbestos-contaminated waste materials stripped and/or removed from the building to an approved waste disposal site in compliance with existing Sections 61.152 and.156 of the EPA Regulations (40 CPR 61), and Sections 172.101 and 173.1090 of the DOT Regulations (40 CFR), or such other or additional regulations as may be used.

n. Encapsulation: All specified procedures necessary to coat asbestos-containing or asbestos-contaminated materials with an encapsulant to control the possible release of asbestos fibers into the ambient air; also specified procedures necessary to render inaccessible asbestos-containing material non-friable and incapable to releasing asbestos fibers into the ambient air by using a penetrating encapsulant.

o. Equipment Room: A contaminated area or room inside the Enclosed Work Area which is part of the Work Area Isolation Structure, with provisions for storing of contaminated clothing and equipment.

p. HEPA: High Efficiency Particulate Air.

q. HEPA Vacuum Equipment: High Efficiency Particulate Air filtered vacuuming equipment with a filter system capable of collecting and retaining asbestos fibers. Currently, filters should have retention efficiency of 99.97% or greater for particles having diameters of 0.3 micrometers or greater.

r. HVAC: Heating, ventilating, and air conditioning; all buildings mechanical equipment including supply and return ductwork, unit ventilators, fan-coil units, blower cabinets and fans, control devices, damper assemblies and other similar mechanical equipment.

s. Independent Testing Laboratory: A qualified organization capable of performing necessary air sampling and other testing requirements of asbestos abatement projects.

t. Lagging: Insulation used to prevent heat floss from pipes, boilers, and similar mechanical equipment.

u. NIOSH: National Institute for Occupational safety and Health.

v. OSHA: United States Department of Labor, Occupational Safety and Health Administration.

w. Removal: All specified procedures necessary to gather, enclose in polyethylene bags and/or sealed drums, and make ready for disposal all stripped ACM or asbestos-contaminated material.

x. Stripping: All specified procedures necessary to remove ACM or asbestos contaminated materials from their substrate or from any component or structure of the building.

y. Surface Sample: A wipe or bulk sample taken from the suspect surface to ascertain the presence of asbestos fibers.

z. Surfactant: A chemical wetting agent added to water to reduce its surface tension and thereby improve its penetrating capabilities into ACM.

aa. 8-Hour TWA: The time-weighted average for an eight-hour day; used in expressing some airborne asbestos fiber concentrations.

bb. Wash Room: A shower between the Clean Room and the Equipment Room in the Work Area Isolation Structure, with facilities for showering and equipment cleaning.

cc. Wet Cleaning: The Process of removing ACM or asbestos-contaminated material from building surfaces, equipment, objects, tools, disposal containers, etc. This may be accomplished by washing with cloths, mops, sponges, or brushes, or by showering with water in the Wash Room.

dd. Work Area Isolation Structure: A series of connected rooms, typically consisting of a Clean Room, Wash Room, and Equipment Room, to permit equipment and personnel movement to and from the Enclosed Work Area while preventing airflow from the Enclosed Work Area. It is also used for the decontamination of workers, materials and equipment. A Work Isolation Structure always contains at least one Air Lock.

QUALITY ASSURANCE

Standards

The Contractor must comply with the latest requirement and recommendations of the following regulations and publications governing asbestos stripping, removal, encapsulation, decontamination, and disposal of much more stringent standards as may be specified by any recognized governmental authority or generally recognized private authority, and all subsequent editions or promulgation of the following:

a. Regulations for Asbestos (Code of Federal Regulations Title 40 CFR, Part 61, Subparts A and M). (Issued April 5, 1984).

b. OSHA-Asbestos Regulations (Code of Federal Regulations Title 29 CFR, Part 1910, Section 1910.1001).

c. EPA-Office of Toxic Substances Guidance Document, "Asbestos-Containing Materials in School Buildings," Part 1 and Part 2.

d. EPA-Office of Pesticides and Toxic Substances publication "Guidance for controlling Friable Asbestos-Containing Materials in Buildings" (EPA 560/5-83-002).

e. NIOSH publications, "Respiratory Protection... An Employer's Manual" and

"Respiratory Protection... A Guide for the Employee".

f. U.S. Department of Transportation (DOT) Hazardous Materials Regulations Code of Federal Regulations Title 49, CFR Parts 172.101 and 173.1090. OSIIA-General Industry Safety and Health Standard Title 29 CFR Section 191 0.134.

h. OSHA-Construction Industry Safety and Health Standards Title CFR Section 1926.1 - .1051

i. OSHA-Hazardous Communications Regulations Title 29 CFR Section 1910.120.

j. All other federal, state, county, municipal, and local statutes, ordinances, regulations, or rules pertaining to asbestos, including its removal, abatements, storage, transportation, and disposal; construction safety and health and hazard communication (workers' right-to-know); and contractor or other licensure, certification and regulation, which are now in effect or which in the future may come into effect.

Air Sampling

The Contractor must comply with the most stringent mandated standard whether imposed by the following, or the specifications for the project, or a governmental agency or authority. At a minimum, the Air Sampling should include:

a. Background sampling, particularly in those buildings where measurable airborne fiber concentration is believed to pre-exist,

b. Representative personal air sampling.

c. Routine air sampling outside the Enclosed Work Areas.

d. Final clearance air sampling shall be conducted by an independent third party. The spending unit's representative will determine if aggressive sampling is required.

Pre-Abatement Sampling

Pre-abatement bulk samples of ACMs and air samples of the areas surrounding ACMs will be preserved and a chain of custody document initiated. Pre-abatement sampling and documentation is the responsibility of the spending unit.

Final Project Clearance

At the conclusion of the abatement and cleaning activities, the Contractor will conduct a thorough inspection of the entire project area. If, and during this inspection, any dust is observed, in addition to any requirement of the specifications, the Contractor will voluntarily re-clean the affected areas, the spending unit's representative may require aggressive air sampling prior to clearance.

Site Inspections

The Contractor's personnel must conduct daily work-site inspections to assure

compliance with these Standard Operating Procedures.

Record Retention

The Contractor must comply with all submittal, documentation, and notice requirements set forth by the EPA, OSHA, all other federal, state, and local regulatory agencies, and the project specifications. Copies of alt submittals, documents, and notices that are produced or are given to the spending unit or to any governmental agency must be retained in the Project Log.

Asbestos Disposal Form

All ACM material of Asbestos-Contaminated Material must be disposed of properly and deposited in an EPA approved landfill. The Contractor must secure an Asbestos Disposal Form or manifest for each separate load of asbestos-containing or contaminated material delivered to the landfill. Copies of all documents relating to disposal must be placed and retained in the Project Log.

PERSONAL PROTECTION

Respiratory Protection Equipment

Subject to any more stringent requirements imposed by applicable law or project specification, the contractor must comply with the following at a minimum.

a. The Contractor must provide all workers and those who have access to abatement work areas with personally issued and marked respiratory protection equipment approved by NIOSH/OSHA as suitable protection against airborne asbestos fibers in the concentration being experienced at each project. Respirators issued to site visitors must, at minimum, provide the same level of protection against airborne asbestos fibers as those issued to workers.

b. The contractor must have and strictly enforce all provisions of a written Respiratory Protection Program at least as stringent as required by law. As part of this Program, all persons using respirators must be thoroughly instructed in the following details:

i. Proper use
ii. Care, cleaning, and sanitizing
iii. Limitations
iv. Maintenance
v. Emergency procedures
vi. Prohibition of facial hair

Documentation of actual receipt of this training must be obtained by signature from each person using respirators. The signed forms and the Respiratory Protection Program must be placed and maintained in the Project Log, The Contractor must not allow access to an abatement work area of a person who has not actually received such training and acknowledged receipt of same.

c. The choice of proper respirators for a specific can vary depending on the degree of protection required. Generally, the highest airborne asbestos fiber concentrations occur during the "gross removal" phase of any asbestos abatement project, though significant concentration can occur during the preparation and clean-up phases. The following must be adhered to:

Respiratory Protection Equipment

1. Air purifying half-face respirators with HEPA filters will be used for all setup when (unless an industrial hygienist certifies in writing that no such respirators are required) the possibility that airborne asbestos fibers exist.

2. At a minimum for all removal work, positive pressure respirators must be used. These may include powered-air respirators (PAR) or air supplied respirators (Type C), and should be on constant flow design. If PAR respirators are used, the filters must meet HEPA performance criteria as defined by NIOSH.

3. At anytime when work-place airborne fiber concentrations are expected or demonstrated by air sampling to exceed 5.0 fibers/cc, only type C respirators can be used.

4. Single-use, disposal respirators must not be used at any time.

Personal Protection Procedures

Subject to any more stringent requirements of applicable law or the project specifications the Contractor must comply with the following:

a. Every person must, prior to every entry into an Enclosed Work Area, remove all street clothes in the Clean Room and put on their respirator and clean protective clothing before passing through the Wash Room to the Enclosed Work Area.

b. Every person must, each time they leave a work area, remove all clothing, except their respirator, prior to entering the Wash Room. The person must then enter the Wash Room and flood their entire bodies, including head and face, with water and wash the respirator. This is necessary to remove any asbestos-containing particles on the respirator, which could subsequently enter their breathing zones. Only after this procedure is complete, may the person remove their respirator and thoroughly wash the remainder of their bodies, especially hair and fingernails. No persons must be allowed to bypass these safety procedures except in bona-fide emergencies.

Visitor's Personal Protective Equipment

Subject to any more stringent requirements of applicable law or project specifications, the Contractor must comply with the following:

a. The contractor must provide complete dress and respirators for all authorized visitors (e.g. EPA, OSHA, Engineer, Architect, Owner, etc.). The protective equipment and respirators provided for visitors must meet or exceed the level protection required for abatement worker's equipment and respirators by the guidelines approved for application to this project, or by project specifications if more stringent.

Emergency Procedures

In the event of an emergency, the above stated decontamination procedures may not be adhered to. All efforts will be utilized to affect immediate First Aid to any victim. In all cases, the following emergency precautions are to be taken:

Contractor must post the phone numbers of all police, fire, ambulance, and hospital, along with directions to each, at each job site.

Work-Place Security

The Contractor must, throughout the asbestos abatement project provide security measures to prevent any unauthorized accidental entry into the work area. The Contractor must post hazard warning signs at all points of possible access to the project.

Enclosed Work Area: These signs must contain the specific wording required by OSHA and EPA.

Water Disposal Containers

The Contractor must utilize waste disposal containers as follows:

a. Polyethylene Bags - Bags used for transporting and disposing of asbestos-containing or asbestos-contaminated materials must be constructed of at least 6 mil polyethylene and be securely labeled with asbestos waste identification and warnings as specified by applicable OSI-IA, EPA, DOT regulations.

b. Drums - Drums used for transporting only, or transporting and disposing of asbestos-containing or asbestos contaminated waste materials must be clean, not previously contaminated with toxic materials, of metal or rigid fiberboard construction, have sealable lids and, when sealed, be air and watertight. Drums so used must be securely labeled with asbestos waste identification and warnings as specified by applicable OSHA, EPA, and DOT regulations.

Use of Encapsulants

Encapsulants as supplied to asbestos abatement projects fall in two major groups:

a. Those materials used to secure in-place friable asbestos-containing materials.

b. Those materials used to seal and enhance surfaces from which friable asbestos-containing materials have recently been removed.

In each case, the encapsulation process must take place within an Enclosed Work Area.

Layout of Work Area Entrance and Decontamination Structures

The Contractor must set up work area isolation/decontamination facilities in the manner specified in the specifications or applicable law, or if more stringent, consisting of three areas as follows:

a. The Equipment Room must be an area of sufficient size to accommodate at least one worker, a 6-mil disposal bag and container, and any equipment that the user wishes to store when not in use. The Equipment Room must not be physically separated from the work Area Isolation Structure.

b. The Wash Room must have two curtained doorways of opaque polyethylene film, one to the Enclosed Work Area, and one to the uncontaminated area. At least one shower must be installed in this room for personal decontamination.

c. The Clean Room must be of sufficient size to accommodate at least one worker and storage of street clothing. The Clean Room must be in the uncontaminated area and be separated from any contaminated area by at least one Air Lock.

d. Prefabricated or trailer-type decontamination/entrance system maybe used.

Maintenance of Isolation System and Barriers

At all times during any asbestos abatement project, the Contractor must routinely and frequently inspect and maintain the integrity of all Barriers and Curtained Doorways, and of the Work Area isolation Structure, and Enclosed Work Area. Special attention must be applied to taped joints. The Contractor must immediately repair damaged Barriers. Curtained Doorways, and other matters that may affect the integrity of the Enclosed Work Area and the Work Isolation Structure.

Use of Asbestos Filtration Devices (AFD)

The Contractor must, on all asbestos abatement projects when required install and use Asbestos Filtration Devices (AFD) as part of an exhaust ventilation system to develop and hold a negative differential air pressure inside the Enclosed Work Areas as compared to those outside the Enclosed Work Area. These AFD's may be used to provide filtered exhaust ventilation from the Enclosed Work Area, thereby removing airborne asbestos fibers from the Enclosed Work Area and forcing the introduction of the clean makeup air into the Enclosed Work Area. Such exhaust ventilation may be effective in reducing airborne fiber concentration inside the Enclosed Work Area.

Complete stripping of all visible asbestos materials is required. Where lagging is inaccessible, neatly trim any exposed edges and seal lagging with re-wet cloth, insulator's mastic, or other material approved by the spending unit.

After completion of stripping work, all surfaces from which asbestos-containing material has been removed must be wire brushed, wet sponged, or cleaned by an equivalent method to remove all visible material.

Cleanup and Transportation of Asbestos-Containing Wastes

All polyethylene film, tape, cleaning material, clothing, respirator and AFD filters, and other disposable material or items used in the Enclosed Work Area must be treated and disposed of as Asbestos- Contaminated Waste.

As disposal containers are filled, they must be sealed and moved to a staging area. The Contractor must remove waste materials from the Enclosed Work Area on a regular basis. All waste containers must be thoroughly decontaminated before leaving the Enclosed Work Area.

When Loading filed disposal containers into the transport vehicles, the Contractor must:

a. Take steps to protect against rupture or other accidental opening of the sealed containers.

b. Must assume any and all liability for any rupture or other opening of sealed containers.

c. Hereby agrees to hold the spending unit harmless therefore.

Warning labels, having waterproof print and permanent adhesive, must be affixed to the sides of the disposal containers. Warning label must be conspicuous and legible, and they must be in accordance with EPA, OSHA, and DOT regulations.

Disposal of Asbestos-Containing Waste

a. Disposal must comply fully with DOT, OSHA, and EPA regulations.

b. The landfill must be licensed to accept asbestos by all federal, state, and local authorities and proof of such license must be included in the project report.

c. The Contractor must fully document actual disposal for each load of waste delivered to the designated landfill. Signature attesting to receipt of the waste by the landfill operator must be obtained from the landfill operator for each load.

Decontamination of Work Area and Site Cleanup

a. Upon completion of all abatement activities and cleanup, all equipment, machinery, scaffolding, tools, etc., no longer needed inside the work area must be cleaned with Amended Water and removed from the Enclosed Work Area.

b. After removing equipment and tools, the Contractor will clean all surfaces inside the Enclosed Work Area using Amended Water and/or HEPA filtered vacuum equipment, as appropriate. The Contractor will thoroughly clean any other areas suspected of having asbestos fiber contamination, using HEPA filtered vacuum equipment or Amended Water, as appropriate.

c. After all surfaces and equipment have been thoroughly cleaned and final clearance air sample results have been obtained, the Work Area Isolation Structures can be removed. All construction materials must be disposed of as asbestos-contaminated waste.

d. The Contractor must conduct a detailed final inspection to ensure that no dust or debris remains on any surface and must immediately take any additional steps necessary to make sure the area is free from asbestos fibers.

ADDITIONAL TERMS & CONDITIONS

All prices are to include the cost of mobilization, demobilization, labor, equipment, and material required to perform asbestos abatement in accordance with the standards and regulations as specified in this Request for Bids.

All asbestos abatement work shall include the sealing of all exposed edges of any remaining asbestos containing material that is to remain in place. Work shall also include the application of a "lock down" or sealant material to all surfaces where asbestos material has been removed.

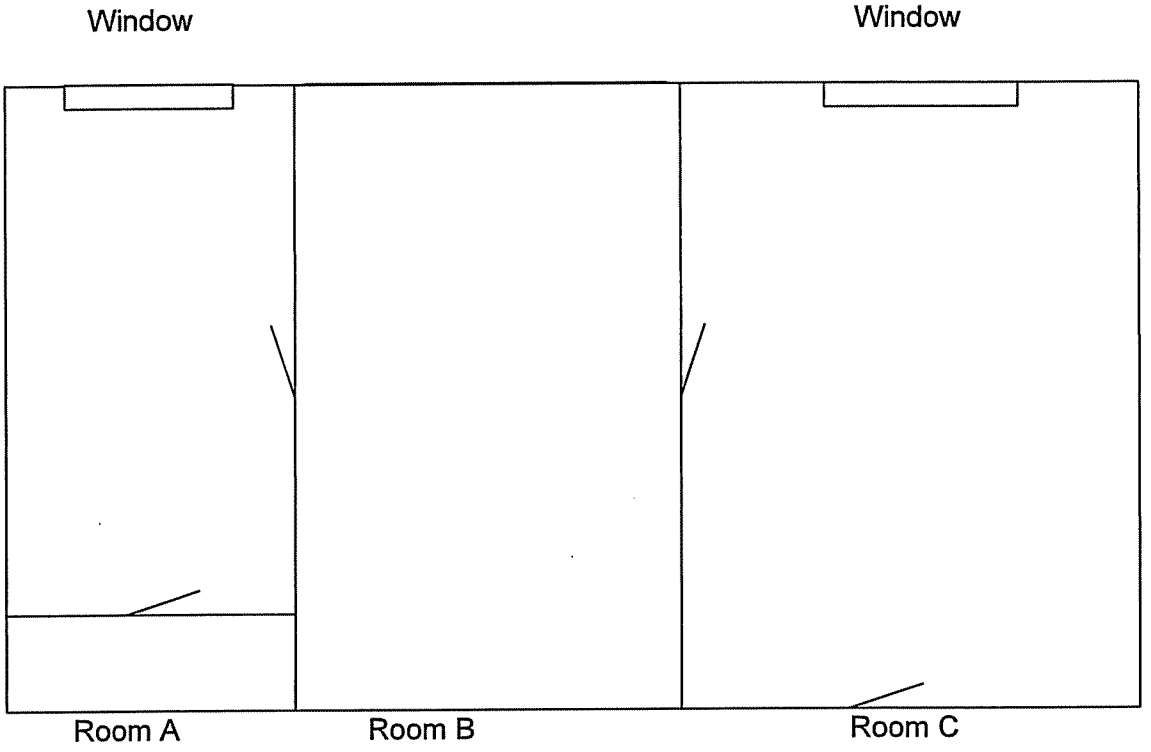
The Contractor is responsible for restoring the work area and auxiliary areas utilized during abatement projects to conditions equal to or better than original. Any damages caused during the performance of abatement activities shall be repaired by the contractor (e.g., paint peeled off by barrier tape, nail holes, water damage, broken glass, etc.), at no additional expense to the spending unit.

UPCOMING SCHEDULED PROJECTS:

BLDG 5 11th floor complete abatement and re-insulation
BLDG 6 9th floor complete abatement and re-insulation
BLDG 5, 6 and 7 window air handler unit abatement for renovation
BLDG 7 Basement air handle room abatement and re-insulation
BLDG 1 Basement inventory area tile, mastic and TSI abatement and re-insulation
BLDG 1 Basement Carpenter shop tile, mastic and TSI abatement and re-insulation
BLDG 1 Mechanical rooms piping abatement and re-insulation
BLDG 1 Basement hallway steam pipe and water pipe abatement and re-insulation
BLDG 1 Air handler rooms abatement and re-insulation
BLDG 1 east main unit basement tile and pipe abatement and re-insulation
BLDG 3 9th floor complete abatement and re-insulation
Bldg 4 Chill water pipe abatement and re-insulation
Bldg 4 Condensate drain line abatement and re-insulation
Numerous tile abatement jobs in BLDG 1, 3, 4, 5, 6, 7 to support renovations
Abatement of ceilings on all floors of BLDGS 5, 6, 7 to support maintenance and renovation
Emergency jobs to abate piping systems that leak
Unforeseen asbestos abatement during construction projects

BID SCENARIO NUMBER 1

Remove carpet and abate tile and mastic in three office spaces.
Room A is 10 feet by 15 feet.
Room B is 20 feet by 12 feet.
Room C is 21 feet by 14 feet.



The area is on the third floor of a six story building. The area around the offices is occupied during normal working hours.

BID SCENARIO NUMBER 2

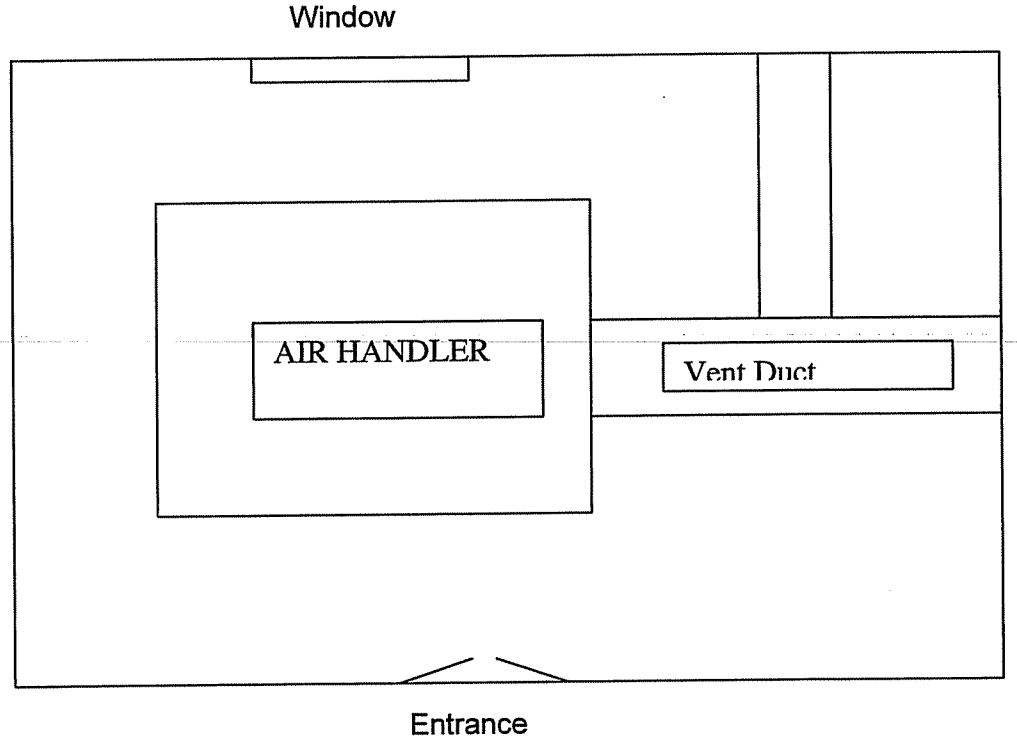
We are requesting bids for the abatement, disposal and re-insulation of Mechanical Room #12 in building 62. The abatement project consists of:

- 980 square feet of ¾ inch sheet insulation on the air handler
- 420 square feet of 1 inch sheet insulation on the vent ducting

Chill water piping
- 89 linear feet if 2" piping
- 120 linear feet of 1" piping
- 115 linear feet of 4" piping

Steam piping:
- 32 linear feet of 12" piping 1" thick TSI
- 295 linear feet of 24" piping 2" thick TSI
- 1" tee connections - 15
- 1" valves - 6
- 1" elbows – 10
- 2" elbows – 4
- 2" valves – 2
- 4" elbows – 4
- 4" tees – 2
- 12" elbows – 2
- 24" elbows – 2

All piping and air handler areas are fully accessible. The piping runs from the air handler to the ceiling which is 16 feet high.



BID SCENARIO NUMBER 3

We are requesting bids for the abatement, disposal and re-insulation of Building 62 12th floor Mechanical Room. The abatement project consists of:

11,000 square feet of spray-on insulation
985 square feet of sheet insulation on air handler # 1
765 square feet of sheet insulation on air handler # 2
685 square feet of sheet insulation on air handler # 3

Chill water piping:

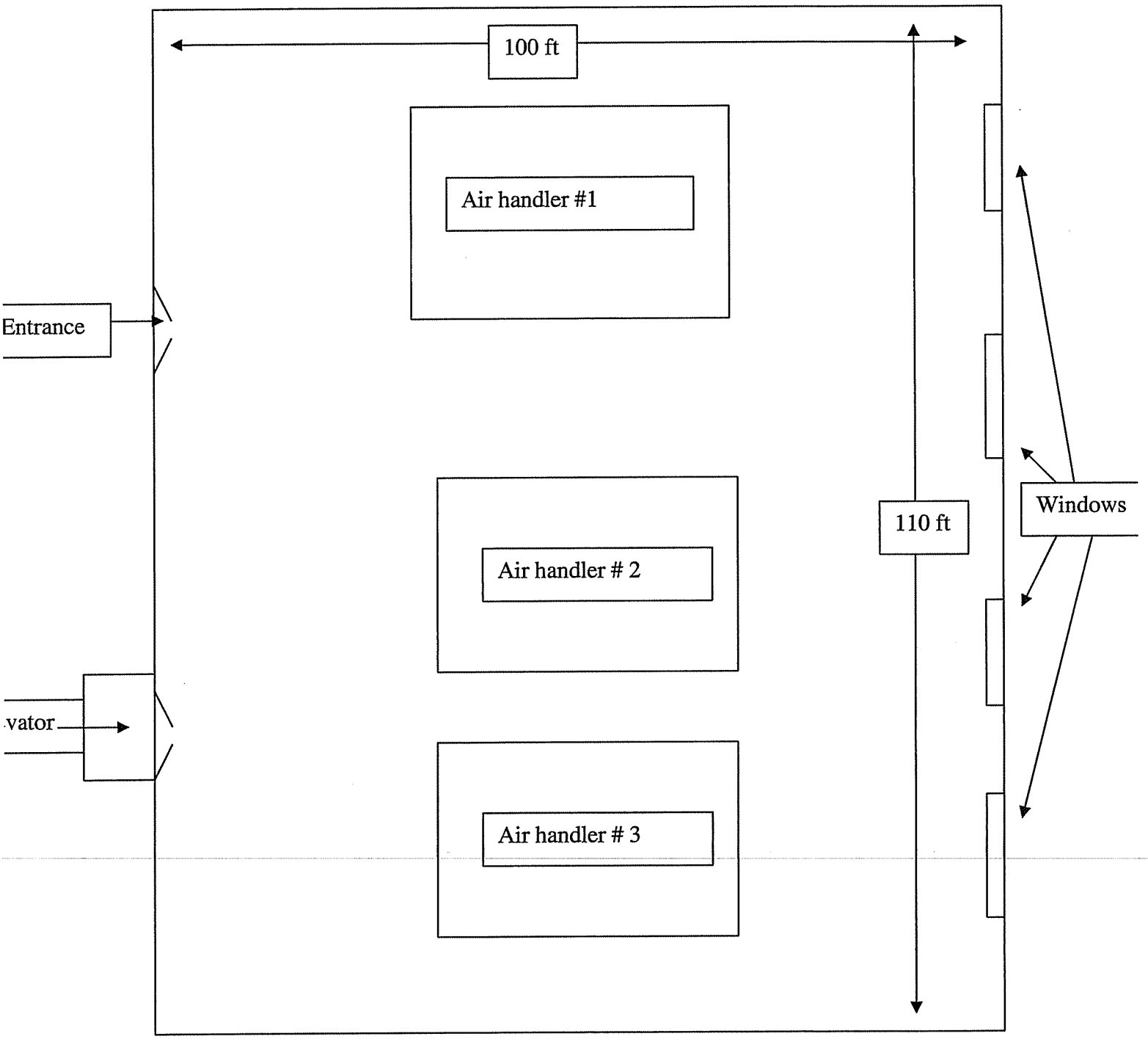
175 linear feet of 1" piping
1" tee – 8
1" valves – 16
1" elbows – 24
85 linear feet of 6" piping
6" valves – 6
6" tees – 4
6" elbows – 8
155 linear feet of 2" piping
2" tees – 9
2" elbows – 16
2" valves – 6

Steam Piping:

80 linear feet of 12" piping
12" elbows – 4
12" valves – 2
140 linear feet of 8" piping
8" elbows – 12
8" tees – 6
8" valves – 4

The ceiling is 20 feet high. Steam piping is suspended from the ceiling and is easily accessible. Chill water piping is connected to the air handler unit and run up to the ceiling and is accessible. The area can be secured during the abatement project but must be done at night when tenants are not at work. The air handler units will be shut down. See general layout on the following page.

BLDG 62 12th Floor



10/15/2007

ABATMNT08
QUESTIONS AND ANSWERS

1	Q	Is there a DBA preference or a percentage goal?
	A	No
2	Q	You had said that the winning bid would be based on the three scenarios. Is this correct?
	A	The winning bids will be based on the three scenarios and the evaluation of the individual costs.
3	Q	The state will provide air monitoring results before any work in that particular area is to be done?
	A	In areas that are potentially problem areas the State will be responsible for a third party air monitor to be conducted prior to abatement.
4	Q	Why are you bidding the asbestos with an insulation contract? It would seem that it would be more beneficial to the state to separate the bids. You would get more abatement companies to bid on the asbestos and more insulation companies to bid on the insulation. This would ultimately result in lower cost for the state. Based on what I have read on the history of the state and asbestos companies that also do insulation the state would want to separate the idea of any collusion.
	A	The State is only authorized to use asbestos funding for the removal and re-insulation of areas abated. Any other insulation jobs that the state requires is bid with that particular project and paid for out of other funds. The contract does allow for sub-contracting for any company that desires to utilize this option.
5	Q	Does the contractor provide the final clearance?
	A	You have stated in the bid that the contractor is to provide anyone that may visit the site with a respirator. It is my understanding that the law does not allow anyone to wear a respirator unless they have had a medical exam and a fit test. So how can the contractor provide this?
6	Q	You have stated in the bid that the contractor is to provide anyone that may visit the site with a respirator. It is my understanding that the law does not allow anyone to wear a respirator unless they have had a medical exam and a fit test. So how can the contractor provide this?
	A	. The individual visiting the site will be responsible for providing information to the contractor that they are qualified to wear a respirator. If this information is not provided the contractor does not allow them access to the area.
7	Q	Under Category 9, All pipe fitting insulation * can you please clarify the following. In the Section where most of the other line items have a $,

		this 9.0 line item has, " 3 X LF" and no $. Are the bidders to place a $ in that area? Is the requested bid amount to be by a single linear foot (LF)? Is the bid amount to be already multiplied by 3 LF then entered as the sum of the unit price for 1 LF X 3 LF?
	A	There is a typo in Category 8.0. All fittings, elbows, tees, valves and flanges to be abated shall be 1.5 times the cost of the linear footage of that size pipe. For example if a ½ inch pipe to be abated costs $5.00 a linear foot to abate, then a ½ inch valve to be abated would be 1.5 times $5.00 which comes to a cost of $7.50 to abate. The price box for this category should read 1.5 X LF. Category 9.0 is for insulation a fitting, elbow, tee, valve or flange. The cost would be 3.0 times the linear footage cost for re-insulating that size pipe. For example if a ½ inch pipe to be re-insulated costs $5.00 a linear foot to re-insulate, then the cost for re-insulating a ½ valve would be 3 times $5,00 which comes to a cost of $15.00. No price entries are required for Category 8.0 or Category 9.0. The prices are fixed based on the linear footage costs to abate and re-insulate respectively.
8	Q	What is the name of the contractor(s) that were awarded the last contract?
	A	The current contract is available for viewing on the State Purchasing Web site. (Contract code ABATMNT)
9	Q	Can the bidders review the previous contractor(s) contract/bid documents?
	A	The current contract is available for viewing on the State Purchasing Web site. (Contract code ABATMNT)

EXHIBIT 10

REQUISITION NO.: .ABATMNT08

ADDENDUM ACKNOWLEDGEMENT

I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

ADDENDUM NO.'S:

NO. 1 .....

NO. 2 .....

NO. 3 .....

NO. 4 .....

NO. 5 .....

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.

VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.

.....
SIGNATURE

.....
COMPANY

.....
DATE

REV. 11/96