



**FLORENCE COUNTY**  
**SOUTH CAROLINA**

**INVITATION-TO-BID NO. 29-13/14**

**ASBESTOS ABATEMENT**  
**PORTIONS OF BASEMENT AND FIRST FLOOR OF THE FLORENCE**  
**COUNTY COMPLEX**

**MANDATORY PRE-BID MEETING: THURSDAY, JUNE 5, 2014 AT**  
**11:00 A.M.**

**BID OPENING: TUESDAY, JUNE 17, 2014, 2014 AT 3:00 P.M. (ET)**

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**COUNTY OF FLORENCE, SOUTH CAROLINA  
INVITATION-TO-BID #29-13/14**

Florence County, South Carolina (Owner) is accepting sealed bids from licensed and qualified Contractors for asbestos abatement to portions of the basement and first floor of the Florence County Complex located at 180 North Irby Street, Florence, South Carolina.

A mandatory pre-bid meeting will be held on **Thursday, June 5, 2014 at 11:00 a.m. (EST)** and will begin in the Procurement Office, Room B-5 of the County Complex building.

**Purpose of the Pre-Bid Meeting:** The purpose of the pre-bid conference is to have all interested companies do a walk-thru of the areas to be abated, to ask any questions concerning this project, and to give the County any needed feedback.

**Attendance at the pre-bid meeting is required as a condition of submitting a bid. Bids submitted by companies not in attendance at the pre-bid meeting will not be considered by Florence County.**

In order to be considered, all bids must be hand carried or mailed in a sealed envelope to the Florence County Procurement Office, County Complex, 180 N. Irby Street – MSC-R, Rm. B-5, Florence, SC 29501-3431 no later than **Tuesday, June 17, 2014 at 2:45 p.m. (EST)**.

The sealed bids will then be opened and read aloud in the Florence County Council Chamber located in room 803 of the County Complex at 3:00 p.m. (ET) on Tuesday, June 17, 2014.

Bids must be clearly marked, "**Invitation-To-Bid #29-13/14 – “Asbestos Abatement In Portions Of The Basement and First Floor Of the Florence County Complex”**". Contractors mailing bids should allow delivery time to ensure timely receipt of their bid. The responsibility for getting the bid to Florence County on or before the specified time and date is solely and strictly the responsibility of the proposing firm. Any bids received later than the submission deadline will not be accepted/considered. Electronic bids will not be accepted. Florence County will in no way be responsible for delays caused by any occurrence.

Florence County under Title VI of the Civil Rights Act of 1964 and related statutes ensures that no person shall on the grounds of race, color, national origin, sex, disability, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

Each responder, by submission of a bid, agrees to each and every term and condition set forth within this Invitation-To-Bid and associated Project Documents, including any addendum that may be issued, and to be bound thereby.

All bids and supporting documents will be retained by Florence County for a period of ninety (90) days from the date the bids are opened, and no bid shall be received, nor shall any responder be allowed to withdraw a bid after the opening hour commences.

This request for bids does not commit Florence County to award a contract; to pay any cost incurred in the preparation of a bid; or, to procure or contract for the services. Florence County reserves the right to accept or reject any or all bids received as a result of this request; to negotiate with any or all qualified proposers; or, to cancel in part or in its entirety this bid invitation, if it is in the best interest of the County to do so.

**ADVERTISED:**      **MORNING NEWS**  
**Sunday, May 25, 2014**

**SCBO**  
**Monday, May 26, 2014**

## **INSTRUCTIONS TO RESPONDERS**

### 1) RECEIPT AND OPENING OF SEALED BIDS:

- a) Sealed bids will be received and opened as specified in this Invitation-To-Bid document.
- b) The Owner will consider as non-responsive any bid not prepared and submitted in accordance with the provisions hereof and may waive any informality or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within one hundred twenty days after the actual date of the opening thereof or as provided for the in the bid documents whichever is later.

### 2) PREPARATION OF BID:

- a) All bids will be evaluated in accordance with procedures and specifications contained herein and Florence County Code. The responsiveness to same determined in accordance to the instructions and criteria in this document. Any bid not providing sufficient information and documentation to comply with the Invitation-To-Bid Evaluation requirements will be considered non-responsive and removed from further consideration.
- b) A proposal shall be made in the official name of the firm or individual under which business is conducted (showing the official business address) and must be signed in ink by a person duly authorized to legally bind the person, partnership, company, or corporation submitting the proposal.
- c) All information requested of the bidder shall be entered in the appropriate spaces on the provided forms. If additional space is required, attach additional pages as needed within the sealed bid response.
- d) Bidders mailing their proposal must allow a sufficient mail delivery period to insure timely receipt of their proposal. Florence County is not responsible for proposals delayed by mail and/or delivery services of any nature. It is the bidder's sole responsibility to insure that all documents are received by person (or office) at the time indicated in the bid document. No facsimile or email submissions.
- e) Bidders must clearly mark as "Confidential" each part of their offer which they consider to be proprietary information that could be exempt from disclosure under Section 30-4-40, Code of Laws of South Carolina, 1976 as amended (Freedom of Information Act). If any part is designated as "confidential", there must be attached to that part an explanation of how this information fits within one or more categories listed in Section 30-4-40. Florence County reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against Florence County or his agents for its determination in this regard.
- f) All information shall be entered in ink or typewritten.
- g) All proposed costs shall be for all licenses, permits, taxes, labor, material, transportation, equipment and any other components/services that are required to complete the work embraced herein this Invitation-To-Bid document.

- h) If applicable, each bidder shall show the names, address and license number of any subcontractors and the scope of their work, which he may employ on the Project. Subcontractors will be required to comply with all applicable requirements of the Specifications. If applicable, each bid shall include the bidder's name, address and South Carolina Contractor's License Number. In South Carolina, where a mechanical contract amount to \$17,500 or more, the name and license number of the subcontractor, where bid is issued, shall also be shown. The license numbers shall be shown on the bid form proposal which will be enclosed in the sealed bid.
- i) Each bidder shall acknowledge receipt of all addenda by its submission of a bid. It shall be each bidder's responsibility to assure that all addenda have been received. No claim for failure to receive addenda will be considered.
- j) Each bid must be submitted in a sealed envelope, addressed to the Owner along with the name of the project for which the bid is submitted. The bidder shall also show his name and address, on the outside of the envelope. Failure to show the required information may result in rejection of the response and removal from further consideration. If forwarded by mail or carrier, the sealed envelope containing the bid must be enclosed in another outer envelope. Florence County shall not be responsible for unidentified proposals.

3) **BIDDER QUALIFICATIONS:**

- a) To be acceptable to the Owner, bidders must be skilled and/or licensed, if applicable, in the class of work on which they respond, and no bid will be considered from any bidder who is unable to show that he has actually performed considerable work of similar character to that on which he is bidding.

4) **BID SURETY REQUIRMENTS:**

- a) As discussed in the Bid Surety Requirement document contained herein, Bid Surety must accompany any and all responses submitted that contain estimated project costs exceeding twenty-five thousand dollars (\$25,000.00). Failure to satisfy this Bid Surety requirement will result in your bid being considered non-responsive and removed from further consideration for award of the subject contract. Bid Surety can be provided as discussed below.
- b) Bid Surety will not be required from firms that have been in business for five (5) consecutive years without filing for bankruptcy. A statement on the company's letterhead from the firm stating this qualification will replace the bid bond and must accompany the bid.
- c) For all bidders not meeting the criteria of "b" above, a deposit in the amount of five percent (5%) of the proposed total contract price shall accompany the bid. These deposits shall take the form of cash, certified check, cashier's check or bond executed by a corporate surety licensed under the laws of this state. The cash, cashier's check or certified check shall be deposited to the County's account if the successful bidder fails to enter into the proposed contract within ten (10) days after the award. Bid deposits of unsuccessful bidders will be returned as soon as the contract is awarded.

**d) One of the above requirements must be met for your response to be considered.**

5) **EXECUTION OF CONTRACT:**

- a) The bidder to whom an award is made shall deliver to the County a certificate of insurance as discussed in **Item 9 below**. The County's issuance of a purchase order and/or verbal notification of such execution may serve as the official "Notice to Proceed". Bidders failing to enter the proposed contract may be subject to Debarment and Suspension, as prescribed under Section 11-102 of the

Florence County Code, from future consideration for award of contracts. Bidders failing to enter the proposed contract may result in claims against bonds.

6) LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT:

- a) The successful bidder, upon his failure or refusal to execute and deliver the contract required within ten (10) working days after he has received "Notice of Award", shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his bid. Forfeiture of guaranty under this section may result in the bidder being subjected to Debarment or Suspension, as prescribed under Section 11-102 of the Florence County Code, from future consideration for award of contracts.

7) TERM OF CONTRACT AND CONTRACT DOCUMENTS:

- a) The contract documents that will form the contract shall include:
  - The Complete Solicitation Document
  - All Addenda
  - The Successful Bidder's Submitted Bid Document
  - Notice of Award (Verbal or Written)
  - Purchase Order/Agreement/Contract
  - Insurance Certification

8) ORDER OF PRECEDENCE

- a) In the event of inconsistent or conflicting provision of this contract and referenced documents, the following descending order of precedence shall prevail: (1) Florence County Procurement Ordinance, as amended (2) Bid Announcement/Advertisement (3) Special Terms and Conditions, (4) Instructions to Responders and Vendor Agreements (5) Other provisions of the contract whether incorporated by reference or otherwise, and (6) the Specifications.

9) INSURANCE AND BONDS:

- a) Upon award of the contract or Purchase Order, the bidder shall maintain, throughout the performance of its obligations a policy of Worker's Compensation insurance with such limits as may be required by SC law, and a policy or policies of general liability insurance insuring against liability for injury to, and death of, persons and damage to, destruction of, property arising out of, or based upon, any act or omission of the bidder or any of its subcontractors or their respective officers, directors employees or agents. Such liability insurance shall have limits sufficient to cover any loss or potential loss resulting from this contract. Florence County must be listed as additional insured. The certificate must allow a minimum of a 30 day written notice of cancellation. Bidder shall provide a Certificate of Insurance to the Florence County Procurement offices prior to start of work.

10) EXAMINATION OF PROJECT'S WORK SITES:

- a) Each of the bidders shall fully familiarize itself with the conditions relating to the bid to insure complete understanding of all the details involved. The bidder shall satisfy itself as to the actual requirements of the bid by personal examination of its location or other means, so as to enable the bidder to make an informed bid. Failure to do so shall not relieve the successful bidder of its obligation to furnish all materials, products, and/or labor necessary to complete the provision of the awarded contract, and failure to do so may result in the claims against bonds. No allowance will be made for any claims that a bid and/or response was based on incomplete information as to the nature and character of the sites and of the work involved.

11) INTERPRETATIONS OF PLANS AND SPECIFICATIONS:

- a) No binding interpretation of the meaning of the Documents or any questions relating to the bid will be made to any bidder orally prior to the receipt of bids. Any request for such interpretation or questions shall be in writing addressed to the Owner or designee. To be given consideration, such requests must be received at least seven (7) days prior to the scheduled date for opening sealed bids. Any such interpretations or supplemental instructions will be issued in the form of addenda to the Contract Documents which will be mailed or emailed to persons receiving a set of documents, not later than three days prior to the date for opening of bids. Failure of any bidder to receive such addenda shall not relieve the successful bidder of any obligation under the awarded contract and this Document.

12) RIGHT TO INCREASE OR DECREASE THE AMOUNT OF WORK:

- a) The Owner reserves the right to increase or decrease the amount of work under the Contract at the unit prices quoted in the bid received from the successful bidder.

13) POWER OF ATTORNEY:

- a) Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power-of-attorney

14) LAW AND REGULATIONS:

- a) The bidder's attention is directed to the fact that all applicable Federal, State and Local laws, statutes, ordinances, and the rules and regulations of all authorities having jurisdiction over the project shall apply to the contract and the project throughout, and they will be deemed to be included in the contract the same as though herein written out in full.
- b) The bidder's attention is directed to the fact that all bids will comply as prescribed under the most current Florence County Code.

15) METHOD OF AWARD:

- a) Contracts will be awarded to the bidder whose bid appears to serve the best interest of the owner. The successful bidder will be determined as prescribed herein this Document.
- b) Florence County reserves the right to accept or reject, in whole, in part, together or separately, any and all responses as appears in its judgment to be in the best interests of the County, or to waive any and all technicalities and informalities in determining the action of each proposal.

16) OBLIGATION OF BIDDER:

- a) At the time of the opening of bids, each bidder will be presumed to have inspected the site, if applicable, and to have read and to be thoroughly familiar with the Documents (including all addenda). The failure or omission of any bidder to examine any form, instruction or document shall in no way relieve any bidder from any obligation in respect to this Invitation-To-Bid.

## **VENDOR AGREEMENTS**

### 1) STATEMENT OF RIGHTS

- a) Florence County reserves the right to obtain clarification or additional information necessary to properly evaluate a proposal. Vendors may be asked to give a verbal presentation of their proposal after submission. Failure of vendor to respond to a request for additional information or clarification could result in rejection of that vendor's proposal. Florence County reserves the right to accept or reject any and all bids, in whole or in part, separately or together, with or without cause; to waive technicalities in submissions, to secure a project that is deemed to be in the best interest of the County. Florence County also reserves the right to make purchases outside of the awarded contracts where it is deemed in the best interest of the County.

### 2) GENERAL TERMS:

- a) Each bidder by submitting a response to Florence County as a result of this Invitation-To-Bid, agrees to and acknowledges its acceptance of and agreement with the procedures outlined below and the terms, conditions and requirements of the applicable Florence County Invitation-To-Bid document. Agreement is evident by the submission of a response to Florence County. If a vendor cannot agree to these terms, or violates these procedures, the response will be judged non-responsive and not considered. If the procedures are violated during the evaluation process or prior to the issuance of a contract by Florence County, the offer of the firm in question will be void and Florence County will procure the goods/services in question from other eligible vendors.

### 3) SPECIFIC TERMS:

- a) Products offered shall meet all requirements of the Uniform Commercial Code, if applicable.
- b) Responses submitted are final and complete offers by the vendor. No additions, corrections, modifications, changes or interpretations will be allowed. In the event questions arise on what is meant by an offer, the Procurement Officer will make a determination as to the county interpretation of the vendor's offer. If, after informing the vendor of the county's opinion, disagreement as to scope of the offer is present, the offer will be declared VOID.
- c) Florence County reserves the right to award proposals received on the basis of individual items, groups of items, or the entire list of items; to reject any and all proposals; and to waive any technicalities. In every case, Florence County reserves the right to make awards deemed to be in the best interest of the County and to negotiate further the offer determined by the County to be in the best interest of the County.
- d) Unit prices will govern over extended prices. Prices must be stated per unit and extended for the total quantity.
- e) Florence County is not exempt from sales tax, if applicable. Sales, use, or excise tax, as well as any handling and shipping charges, must be shown as separate items.
- f) Florence County has a local preference of 2%, which may be applied in bid award determination.
- g) Any deviation from specifications in the bid solicitation must be clearly pointed out; otherwise, it will be considered that the items offered are in strict compliance with these specifications, and the



successful bidder will be held responsible therefore. Unless otherwise stated, it is understood and agreed that any item offered or shipped on this bid shall be new and suitable for storage or shipment, and that prices include standard commercial packaging and handling.

- h) Any attempt by a vendor to influence the opinion of the county staff, or County Council, by discussion, promotion, advertising or any procedure to promote their offer, will constitute grounds to judge such an offer non-responsive. All offers presented to Florence County will be evaluated based on the current County Code and the offer as presented to the county on the date/time specified in the given solicitation.
- i) In the event of inconsistent or conflicting provision of this contract and referenced documents, the following descending order of precedence shall prevail: (1) Florence County Procurement Ordinance, as amended (2) Bid Announcement/Advertisement (3) Special Terms and Conditions, (4) Instructions to Responders and Vendor Agreements (5) Other provisions of the contract whether incorporated by reference or otherwise, and (6) the Specifications.
- j) Florence County reserves the right to make periodic inspections of the manner and means the service is performed or the goods are supplied.
- k) All vendors are informed that the Procurement Officer may exercise the County's option to extend the contract, (purchase order) under the provisions of County Code should such extension be mutually agreeable between the County and the selected vendor.
- l) The Bidder agrees to secure at Bidder's own expense all personnel necessary to carry out Bidder's obligations under this Proposal. Such personnel shall not be deemed to be employees of the County nor shall they or any of them have or is deemed to have any direct contractual relationship with the County. The County shall not be responsible for withholding taxes with respect to the Bidder's compensation hereunder. Bidder shall not hold himself out as an employee of the County, and shall have no power or authority to bind or obligate the County in any manner, except County shall make payment to Bidder for services as herein provided. Bidder shall obtain and maintain all licenses and permits required by law for performance of this contract by him. The Bidder shall have no claim against the County hereunder or otherwise for vacation pay, sick leave, retirement benefits, social security, worker's compensation, health or disability benefits, unemployment insurance benefits, or employee benefits of any kind. State or Federal governments, including but not limited to Social Security, workmen's compensation, Employment Security, sales or use tax and any other taxes and licenses or insurance premiums required by law. The County shall pay no employee benefits or insurance premiums of any kind to or for the benefit of Bidder or his employees, agents, and servants by reason of this contract. The Bidder will carry liability insurance relative to any service that he performs for the County. A certificate of insurance must be submitted to the procurement office prior to services performed, with the requested coverage and limits per the County, with Florence County listed as additional insured.
- m) The vendor will act in an independent capacity and not as officers or employees of the County. The vendor shall indemnify, defend and hold harmless Florence County, its officers, agents and employees from liability and any claims, suits, judgments, and damages of any nature brought because of, arising out of, or due to breach of the agreement by Vendor, its subcontractors, suppliers, agents, or employees or due to any negligent act or occurrence or any omission or commission of Vendor, its subcontractors, suppliers, agents, or employees.

- n) The successful vendor shall indemnify and hold harmless the Florence County, its officers, agents and employees from all suits or claims of any character resulting from patent, trademark or copyright infringement or accidents/injury at any point in the delivery of goods/services.
- o) It is the responsibility of the prospective bidder to review the entire invitation for bids packet and to notify the Purchasing Department if the specifications are formulated in a manner that would unnecessarily restrict competition. Any such protest or question regarding the specifications or bidding procedures must be received by the Procurement Department not less than five (5) days prior to the time set for bid opening. These requirements also apply to specifications or instructions that are ambiguous.
- p) Should any vendor fail to perform or comply with any provision or terms and conditions of any documents referenced and made part hereof, Florence County may terminate this contract, in whole or in part, and may consider such failure or non-compliance a breach/default of contract. The County reserves the right to purchase any/all items or service in default on the open market. By submittal of a response all vendors agree to this provision. No additional responses will be considered from a firm in default until the default expenses are paid. No principals of a defaulting firm may submit a response under another organization or individual name until their previous default is settled.
- q) Florence County may terminate this agreement with or without cause at any time. In the event of termination by either party, fees due for services satisfactorily performed or goods accepted prior to the termination shall be paid.
- r) Unless specifically requested, submit one (1) copy of your response. All submittals become the property of Florence County.
- s) In the event no funds are appropriated by Florence County for the goods or services in any fiscal year or insufficient funds exist to purchase goods or services, then the Contract shall expire upon the expenditure of previously appropriated funds or the end of the current fiscal year, whichever occurs first, with no further obligations owed to or by either party.
- t) All bids (and supporting documents) will be retained by Florence County for a period of ninety (90) days from the date the bids are opened, and no bid shall be received nor shall any bidder be allowed to withdraw a bid after the opening hour commences.
- u) Brand names and numbers, when used, are for reference only to indicate character or quality desired and do not indicate a preference. Equal items will be considered; equal items shall state the brand name or quality; and Florence County's determination of what shall constitute equality shall be final and conclusive.
- v) S.C. LAW CLAUSE: Upon award of a contract or Purchase Order under this bid, the person, partnership, association, or corporation to whom the award is made must comply with the laws of South Carolina, which require such person or entity to be authorized and/or licensed to do business in this state. Notwithstanding the fact that applicable statutes may exempt or exclude the successful bidder from requirements that it be authorized and/or licensed to do business in this state, by submission of this signed bid, the bidder agrees to subject itself to the jurisdiction and process of the courts of the State of South Carolina, to all matters and disputes arising or to arise under the contract and performance thereof, including any questions as to the liability for taxes, licenses, or fees levied by the State.



2.3 The Contractor has received, reviewed and examined all the documents which make up the Contract, including, but not limited to, all plans and specifications, and has found them, to the best of its knowledge, to be complete, accurate, adequate, consistent, coordinated and sufficient to complete the Project.

**ARTICLE 3  
INTENT AND INTERPRETATION**

With respect to the intent and interpretation of this Contract, the County and the Contractor agree as follows:

- 3.1 This Contract (along with its exhibits and all documents incorporated herein by reference), together with the Contractor's and Surety's performance and payment bonds for the Project, constitute the entire and exclusive agreements between the parties with reference to the project, and said Contract supersedes any and all prior discussions, communications, representations, understanding, negotiations, or agreement.
- 3.2 Anything that may be required or reasonably inferred by the documents which make up this Contract, or any one or more of them, shall be provided by the Contractor for the Contract Price.
- 3.3 Nothing contained in this Contract shall create, nor be interpreted to create, privity or any other relationship whatsoever between the County and any person except the Contractor.
- 3.4 When a word, term or phrase is used in this Contract, it shall be interpreted or construed first, as defined herein; second, if not defined, according to its generally accepted industry meaning; and third if there is no generally accepted industry meaning, according to its common and customary usage.
- 3.5 The words "include," "includes," and "including," as used in this Contract, shall be deemed to be followed by the phrase, "without limitation".
- 3.6 The listing herein of any items as constituting a material breach of this Contract shall not imply that any other, non-listed item will not constitute a material breach of this Contract.
- 3.7 In the event of any conflict, discrepancy, or inconsistency among any of the documents which make up this Contract, the following shall control:
  - 3.7.1 As between this document and the plans or specifications, this document shall govern.
  - 3.7.2 In the case of any conflict, discrepancy or inconsistency among any of the other Contract documents, the Contractor shall notify the County immediately upon discovery of the same.

**ARTICLE 4  
CONTRACTOR'S PERFORMANCE**

The Contractor shall perform all of the work required, implied or reasonably inferable from this Contract including, but not limited to, the following:

- 4.1 The Contractor will complete the entire Work described in the Contract Documents, in accordance with the terms herein, and the Scope of Work, all as may be amended from time to time.
- 4.2 Contractor shall furnish any and all required surety bonds and insurance certificate(s) and endorsement(s).

**ARTICLE 5  
TIME FOR CONTRACTOR'S PERFORMANCE**

- 5.1 The Contractor shall commence the performance of this Contract on the date of execution of this Contract and shall diligently continue its performance to and until Completion of the Project. **The contractor shall accomplish Substantial Completion (as defined below) of asbestos abatement of portions of the Basement and First Floor of the Florence County Complex according to specifications detailed in Bid #29-13/14 in no more than xx days following the execution of this contract.** By signing this contract, the contractor agrees that the Contract Time is a reasonable time for accomplishing Completion of the Project.
- 5.2 The term "Substantial Completion," as used herein, shall mean that point at which, as certified in writing by the County, the Project is sufficiently complete in accordance with the Contract Documents so that the County can utilize the Work for its intended use.
- 5.3 The County has the right to impose liquidated damages in the amount of \$150 per calendar day for any days after the required date of completion noted above that the project is not substantially complete.

**ARTICLE 6  
FIXED PRICE AND CONTRACT PAYMENTS**

- 6.1 The County shall pay, and the Contractor shall accept, as full and complete payment for the Contractor's timely performance of its obligations hereunder the fixed price of xxxxxxxxxxxx (\$xxxx). This price shall constitute the Contract Price.
- 6.2 The Contractor shall submit an invoice for the entire cost of the contract upon substantial completion. When the Project is complete and the Contractor is ready for a final review, it shall notify the County. Thereupon, the County will perform a final site review of the Project. If the County concurs that the Project is complete and in full accordance with this Contract and that the Contractor has performed all of its obligations to the County hereunder, the County will pay the total contract price in full.
- 6.3 Guarantees and equipment warranties required by this Contract shall commence on the date of Substantial Completion.

**ARTICLE 7**  
**DUTIES, OBLIGATIONS AND RESPONSIBILITIES OF THE CONTRACTOR**

In addition to any and all other duties, obligations and responsibilities of the Contractor set forth in the Contract Documents, the Contractor shall have and perform the following duties, obligations and responsibilities to the County:

- 7.1 The Contractor shall not perform work without adequate plans and specifications. If the Contractor performs work knowing or believing, or if through exercise of reasonable diligence it should have known, that such work involves an error, inconsistency or omission in the Contract without first providing written notice to the County, the Contractor shall be responsible for such work and shall correct same bearing the costs therefore.
- 7.2 All work shall strictly conform to the requirements of this Contract. To that end the Contractor shall be solely responsible for and have control over the performance of all portions of the Work, unless otherwise specified in the Contract Documents.
- 7.3 The work shall be strictly supervised, the Contractor bearing full responsibility for any and all acts, errors or omissions of those engaged in the work on behalf of the Contractor, including, but not limited to all subcontractors or employees. The Contractor shall provide on-site supervision while any portion of the work is being performed.
- 7.4 The Contractor hereby warrants that all laborers furnished under this Contract shall be qualified and competent to perform the tasks undertaken, that the product of such labor shall yield only first-class results, that all materials and equipment provided shall be new (unless otherwise specified) and of high quality, that the completed work will be complete, of high quality, without defects, and that all work strictly complies with the requirements of this Contract. Any work not strictly complying with the requirements of this section shall constitute a breach of the Contractor's warranty.
- 7.5 The Contractor shall maintain the Project site and adjacent areas affected by its work and/or acts of its employees and subcontractors in a reasonably clean condition during the performance of the work. Upon substantial completion, the Contractor shall clean the Project site of all debris, trash and excess materials and equipment. If the Contractor fails to do so, the County may complete the cleanup, by its own forces or by separate contract, and shall be entitled to charge the Contractor for the same through the collection or withholding of funds through the mechanisms provided elsewhere herein.
- 7.6 At all times relevant to this Contract, the Contractor shall permit the County and its designated representative(s) to enter upon the Project site to review or inspect the work and any materials on the site without formality or other procedure.
- 7.7 **PROTECTION OF PERSONS AND PROPERTY.** It shall be the responsibility of the Contractor to initiate, continue and supervise all safety programs and precautions in performance of the terms of this Contract. The Contractor shall take reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury or loss to its employees, subcontractors, employees of the County and members of the public, the Work itself and unassembled components thereof, and other property at the site or adjacent thereto. As part of the Contractor's obligations hereunder, the Contractor shall erect and maintain safeguards, barriers, signs, warnings, etc.

**ARTICLE 8  
INDEMNITY**

The Contractor hereby expressly agrees to indemnify and hold the County harmless against any and all expenses and liabilities arising out of the performance or default of this Contract or arising from or related to the Work as follows:

- 8.1 Contractor expressly agrees to the extent that there is a causal relationship between its negligent, reckless or intentionally wrongful action or inaction, or the negligent, reckless or intentionally wrongful action or inaction of any of its employees or any person, firm or corporation directly or indirectly employed or retained by the Contractor, and any damage, liability, injury, loss or expense (whether in connection with bodily injury or death or property damage or loss) that is suffered by the County or its employees or by any member of the public, to indemnify and save the County and its employees harmless against any and all liabilities, penalties, demands, claims, lawsuits, losses, damages, costs, and expenses arising out of the performance or default of this Contract or arising from or related to the Work, regardless of whether such liabilities, penalties, demands, claims, lawsuits, losses, damages, costs, and expenses are caused in part by the County. Such costs are to include, without limitation, defense, settlement and reasonable attorneys' fees incurred by the County and its employees. This promise to indemnify shall include without limitation, bodily injuries, death occurring to Contractor's employees and any person, directly or indirectly employed or retained by the Contractor (including without limitation any employee of any subcontractor), the County's employees, the employees of any other independent contractors, or occurring to any member of the public. When the County submits notice, Contractor shall promptly defend any aforementioned action.
- 8.2 The limits of insurance required herein shall not limit the Contractor's obligations under this Article. The terms and conditions contained in this Article shall survive the termination of this Agreement or the suspension of the Work hereunder. The recovery of fees and costs specified herein will also apply to any actions to enforce this Article.

**ARTICLE 9  
DISCOVERING AND CORRECTING DEFECTIVE OR INCOMPLETE WORK**

- 9.1 In the event that the Contractor covers, conceals or obscures its work in violation of this Contract or in violation of an instruction from the County, such work shall be uncovered and displayed for review by the County upon request, and shall be reworked at not cost in time or money to the County.
- 9.2 The Contractor shall, at no cost in time or money to the County, correct work rejected by the County as defective or failing to conform to this Contract. Additionally, the Contractor shall reimburse the County for all review, inspections and other expenses incurred as a result thereof.
- 9.3 In addition to its warranty obligations set forth elsewhere herein and any manufacturer's warranties provided on the project, and in addition to other remedies provide herein or by law to the County, the Contractor shall be specifically obligated to promptly correct any and all defective or nonconforming work, whether obvious or after-discovered, for a period of twelve (12) months following Substantial Completion upon written direction from the County.

**ARTICLE 10  
TERMINATION BY THE COUNTY**

The County may terminate the Contract in accordance with the following terms and conditions:

- 10.1 The County may, by written notice, terminate this Contract in whole or in part at any time, for the failure to fulfill the Contract obligations. Upon receipt of such notice, services shall be immediately discontinued unless the notice directs otherwise, and all materials as may have been accumulated in performing this Contract, whether completed or in progress delivered to the County.
- 10.2 Termination due to the failure to fulfill the Contractor's obligations may cause the County to take over the work and prosecute the same to completion by Contract or otherwise. In such case, the contractor shall be liable to the County for any additional cost occasioned to the County thereby.
- 10.3 The rights and remedies of the County provided in this Article are in addition to any other rights and remedies provided by law or under this Contract.
- 10.4 Notwithstanding any other provision contained herein, any violation or breach of terms of this Contract on the part of the Contractor or their subcontractors may result in the suspension or termination of this Contract or such other action that may be necessary to enforce the rights of the parties of this Contract. The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.

**ARTICLE 11  
INSURANCE**

The Contractor shall have and maintain insurance in accordance with the requirements of the Contract Documents.

**ARTICLE 12  
SURETY BONDS**

The contractor shall furnish separate performance and payment bonds to the county, as required by the Invitation to Bid. Each bond shall set forth a penal sum in an amount not less than the Contract Price. Each bond furnished by the Contractor shall incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in such bonds. The performance and payment bonds furnished by the Contractor shall be in form suitable to the County and shall be executed by a surety, or sureties, reasonably acceptable to the County.

**ARTICLE 13  
ENTIRE AGREEMENT**

Any modification to this Contract must be supported by an additional, articulated consideration, and must either be in writing, executed by the parties hereto, or, if made orally, should be confirmed in writing, which writing should state the consideration which supports the modification. Failure to confirm an oral modification in writing shall constitute a waiver of any claim for additional compensation with regard to the



oral modification. Nothing in this Article shall be construed to limit the County's authority to issue changes.

**ARTICLE 14  
SEVERABILITY**

If any term or condition of this Contract or application thereof to any person(s) or circumstances is held invalid, this invalidity shall not affect other terms, conditions or applications which can be give effect without the invalid term, condition, or application. To this end, the terms and conditions of this Contract are agreed to be severable.

**ARTICLE 15  
WAIVER**

Waiver of any breach of any term or condition of this Contract shall not be deemed a waiver of any prior or subsequent breach, and shall not entitle any party hereto to any subsequent waiver of any terms hereunder. No term or condition of this Contract shall be held to be waived, modified or deleted except by an instrument, in writing, signed by the parties hereto.

**ARTICLE 16  
NOTICES**

All notices to each party to this Contract shall be in writing, and sent as follows:

**To County:**

Patrick Fletcher, Procurement Director  
Florence County  
180 North Irby Street, MSC-R  
Florence, SC 29501  
Telephone: (843) 665-3018

**To Contractor:**

XXXXXXXXXX  
XXXXXXXXXX  
XXXXXXXXXX  
XXXXXXXXXX  
Telephone: XXXXXXXXXXX

All notices, demands, requests, consents or approvals that may or are required to be given by any party to another shall be in writing and shall be deemed given if: (i) served personally by hand delivery; (ii) sent by nationally-recognized overnight courier with return receipt; or (iii) sent by Unites States registered or certified mail, by depositing the same in the United States Mail in the continental United States, postage prepaid, return receipt requested and addressed to such other party at the address specified above or at such

other place as such other party may from time to time designate by notice in writing to the other parties hereto. Rejection or other refusal to accept a notice, demand, request or consent, or the inability to deliver because of a changed address, of which no notice was given, shall be deemed to be actual receipt thereof. In the event given by registered or certified mail, such notice, demand, request, or consent so mailed shall be effectively conveyed upon receipt or shall be presumed to have been effectively conveyed and received by the addressee 72 hours after deposit of same in the mail, whichever first occurs.

**ARTICLE 17  
APPLICABLE LAW**

The laws of South Carolina shall govern this Contract. In any litigation arising under this Contract, all such litigation shall be litigated in the Circuit Court within the Twelfth Judicial Circuit Court of Florence County, South Carolina. Without limitation upon the prevailing party’s rights to recovery such fees and costs, the relevant provisions of Section 15-37-10 et seq. of the Code of Laws of South Carolina (1976, as amended) shall apply to this Article, as the case may warrant. This Contract is **not** subject to arbitration.

**ARTICLE 18  
SUCCESSOR AND ASSIGNS**

Each party binds itself, its successor, assigns, executors, administrators or other representative to the other party hereto and to successors, assign, executors, administrators or other representatives of such other party in connection with all terms and conditions of this Contract. The Contractor shall not assign this Contract without prior written consent of the County

**IN WITNESS WHEREOF**, the parties have executed this Agreement in three originals under their several seals the day and year first written above.

**WITNESSETH:**

**FOR CONTRACTOR:**

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Contractor Name

Federal Tax I.D. No.: \_\_\_\_\_

**FOR FLORENCE COUNTY:**

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
K.G. Rusty Smith, Jr., County Administrator



Industrial Hygiene

## **ASBESTOS ABATEMENT SPECIFICATION**

**Florence County Complex  
Basement and First Floor  
180 North Irby Street  
Florence, South Carolina 29501**

## **PART 1 – GENERAL**

### **1.1 SUMMARY OF THE WORK**

#### **1.1.1 CONTRACT DOCUMENTS AND RELATED REQUIREMENTS**

Drawings, general provisions of the contract, including general and supplementary conditions shall apply to the work of this section. The contract documents show the work to be done under the contract and related requirements and conditions impacting the project. Related requirements and conditions include applicable codes and regulations, notices and permits, existing site conditions and restrictions on use of the site, requirements for owner occupancy during the work, coordination with other work and the phasing of the work. In the event the Asbestos Abatement Contractor discovers a conflict in the contract documents and/or requirements or codes, the conflict must be brought to the immediate attention of the Owner for resolution. Whenever there is a conflict or overlap in the requirements, the most stringent shall apply. Any actions taken by the Contractor without obtaining guidance from the Owner shall become the sole risk and responsibility of the Asbestos Abatement Contractor.

#### **1.1.2 EXTENT OF WORK**

- A. Below is a brief description of the asbestos containing materials to be abated. The Asbestos Abatement Contractor shall satisfy himself as to the actual quantities to be abated. Nothing in this section may be interpreted as limiting the extent of work otherwise required by this contract and related documents.
1. Basement Level (Former cell processing, and holding and Sally Port):
    - a. Friable removal, clean-up and disposal of asbestos contaminated ceiling tile system, ACM spray applied structural fireproofing, ACM floor tile and mastic, and asbestos containing sheetrock and joint compound wall material and TSI within plumbing chase behind holding restrooms.
    - b. Removal of ducts coated in ACM mastics (grey, beige and red), TSI insulation coated in mastics (black) and aluminum foil backed HVAC duct insulation seam mastic (black).
  2. First floor (North end of building) beyond elevators:
    - a. Friable removal, clean-up and disposal of asbestos contaminated ceiling tile system, ACM spray applied structural fireproofing, ACM floor tile and mastic.
    - b. **Cover and protect in place:** Ducts coated in ACM mastics (grey, beige and red), TSI insulation coated with ACM mastics (black) and aluminum foil backed HVAC duct insulation with ACM seam mastic (black).

## TASKS

The work tasks are summarized briefly as follows:

- A. Pre-abatement activities including pre-abatement meeting(s), inspection(s), notifications, permits, submittal approvals, work-site preparations, emergency procedures arrangements and standard operating procedures for floor tile and mastic abatement work.
- B. Abatement activities including: preparation of containment and decontamination and load out facilities, opening of steel jail ceilings for access to spray applied fireproofing, removal, clean-up and disposal of ACM waste, recordkeeping, security, monitoring and inspections.
- C. Cleaning and decontamination activities including final visual inspection, air monitoring and certification of decontamination.

### 1.1.3 ABATEMENT CONTRACTOR USE OF PREMISES

The contractor shall use the existing facilities in the building strictly within the limits indicated in contract documents as well as the approved pre-abatement work plan. Asbestos abatement drawings of occupied buildings will show the limits of regulated area; the temporary location of bagged waste ACM; the path of transport to outside the building; and the temporary waste storage area for each building/regulated area. Any variation from the arrangements shown on the drawings shall be secured in writing from the Owner through the pre-abatement plan of action. The following limitations of use shall apply to existing facilities shown on drawings: All areas not within the scope of work.

### 1.2 VARIATIONS IN QUANTITY

- A. The quantities and locations of ACM as indicated on the drawings and the extent of the work included in this section are estimates which are limited by the physical constraints of the buildings. Accordingly, the Asbestos Abatement Contractor shall satisfy himself as to the actual quantities to be abated. Nothing in this section may be interpreted as limiting the extent of work otherwise required by this contract and related documents.

### 1.3 STOP ASBESTOS REMOVAL

If the Contracting Officer or their field representative presents a written **Stop Asbestos Removal Order**, the Abatement Contractor/Personnel shall immediately stop all asbestos removal and adequately wet any exposed ACM. The Contractor shall not resume any asbestos removal activity until authorized to do so by Owner. A stop asbestos removal order may be issued at any time Owner determines abatement conditions/activities are not within specification requirements. Work stoppage will continue until conditions have been

corrected to the satisfaction of Owner. Standby time and costs for corrective actions will be borne by the Abatement Contractor, including the industrial hygienist's time. The occurrence of any of the following events shall be reported immediately by the Abatement Contractor in writing to the Owner and shall require the Contractor to immediately stop asbestos removal activities and initiate fiber reduction activities:

- A.  $\geq$  0.01 f/cc outside regulated area
- B. breach/break in regulated area barrier(s)
- C. serious injury/death within regulated area
- D. fire/safety emergency within the regulated area
- E. respiratory protection system failure
- F. power failure
- G. excessive airborne fibers ( $>0.5$  f/cc) in the regulated area when wet methods are being used

## 1.4 DEFINITIONS

### 1.4.1 GENERAL

Definitions and explanations here are neither complete nor exclusive of all terms used in the contract documents, but are general for the work to the extent they are not stated more explicitly in another element of the contract documents. Drawings must be recognized as diagrammatic in nature and not completely descriptive of the requirements indicated therein.

### 1.4.2 GLOSSARY

**Abatement** – Procedures to control fiber release from asbestos-containing materials, typically during removal includes removal, encapsulation, enclosure, demolition and renovation activities related to asbestos.

**ACE** – Asbestos contaminated elements.

**ACM** – Asbestos containing material.

**Aerosol** – Solid or liquid particulate suspended in air.

**Adequately wet** – Sufficiently mixed or penetrated with liquid to prevent the release of particulates. If visible emissions are observed coming from the ACM, then that material has not been adequately wetted.

**Aggressive method** – Removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles or disintegrates intact ACM.

**Aggressive sampling** – EPA AHERA defined clearance sampling method using air moving equipment such as fans and leaf blowers to aggressively disturb and maintain in the air residual fibers after abatement.

**AHERA** – Asbestos Hazard Emergency response Act; Asbestos regulations for schools issued in 1987

**AIHA** – American Industrial Hygiene Association

**Aircell** – Pipe or duct insulation made of corrugated cardboard which contains asbestos

**Air monitoring** – The process of measuring the fiber content of a known volume of air collected over a specified period of time. The NIOSH 7400 Method, Issue 2 is used to determine the fiber levels in air.

**Air sample filter** – The filter used to collect fibers which are then counted. The filter is made of mixed cellulose ester membrane for PCM (Phase Contrast Microscopy) and polycarbonate for TEM (Transmission electron Microscopy).

**Amended water** – Water to which a surfactant (wetting agent) has been added to increase the penetrating ability of the liquid.

**Asbestos** – Included chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos and any of these minerals that have been chemically treated or altered. Asbestos also includes PACM, as defined below.

**Asbestos-containing material (ACM)** – Any material containing more than one percent weight of any asbestos of any type or mixture.

**Asbestos contaminated elements (ACE)** – Building elements such as ceilings, walls, lights or ductwork that are contaminated with asbestos.

**Asbestos-containing waste material** – Asbestos-containing material or asbestos contaminated objects requiring disposal.

**Asbestos waste decontamination facility** – A system consisting of drum/bag washing facilities and a temporary storage area for cleaned containers of asbestos waste. Used as the exit for waste and equipment leaving the regulated area. In an emergency it may be used to evacuate personnel.

**ASHARA** – Asbestos School Hazard Abatement Re-authorization Act, This act on the regulations for implementation requires individuals conducting asbestos inspections to be AHERA trained with current certification.

**Authorized person** – Any person authorized by the Owner, the Contractor or government agency and required by work duties to be present in regulated areas.

**Authorized visitor** – Any person approved by the Owner, the Contractor or any government agency having jurisdiction over the regulated area.

**Barrier** – Any surface that isolates the regulated area and inhibits fiber migration from the regulated area.

**Containment barrier** – An airtight barrier consisting of walls, floors and/or ceilings of sealed plastic sheeting which surrounds and seals the outer perimeter of the regulated area.

**Critical barrier** – The barrier responsible for isolating the regulated area from adjacent spaces, typically constructed of plastic sheeting secured in place at openings such as doors, windows or any other opening into the regulated area.

**Primary barrier** – Barriers placed over critical barriers and exposed directly to abatement work.

**Secondary barrier** – Any additional sheeting used to isolate and provide protection from debris during abatement work.

**Breathing zone** – The hemisphere forward of the shoulders with a radius of about 150-225 mm (6-9 inches) from the worker's nose

**Bridging encapsulant** – An encapsulant that forms a layer on the surface of the ACM.

**Building/facility owner** – The legal entity, including a lessee, which exercises control over management and recordkeeping functions relating to a building and/or facility in which asbestos activities take place.

**Bulk testing** – The collection and analysis of suspect asbestos-containing materials.

**Certified Industrial Hygienist (CIH)** – One certified in practice of industrial hygiene by the American Board of Industrial Hygiene. An industrial hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.

**Class I asbestos work** – Activities involving the removal of Thermal System Insulation (TSI) and surfacing SCM and Presumed Asbestos Containing Material (PACM).

**Class II asbestos work** – Activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastic.



**Class III asbestos work** – Repair and maintenance operations where ACM, including TSI and surfacing ACM and PACM, may be disturbed

**Class IV asbestos work** – Maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II and III activities.

**Clean room/Changing room** – An uncontaminated room having facilities for the storage of employee's street clothing and uncontaminated materials and equipment.

**Clearance sample** – The final air sample taken after all asbestos work has been done and visually inspected. Performed by the Owner's industrial hygiene consultant.

**Closely resemble** – The major workplace conditions which have been contributed to the levels of historic asbestos exposure, are no more protective than conditions of the current workplace.

**Competent person** – In addition to the definition in 29 CFR 1926.32(f) one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them as specified in 29 CFR 1926.32(f); in addition, for Class I and II work who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for supervisor.

**Contractor's Professional Industrial Hygienist (Contractor's Competent Person or IH)** – The asbestos abatement contractor's industrial hygienist. The industrial hygienist must meet the qualification requirements of the IH.

**Count** – Refers to the fiber count or the average number of fibers greater than 5 microns in length per cubic centimeter of air.

**Decontamination area/unit** – AN enclosed area adjacent to and connected to the regulated area and consisting of an equipment room, shower room and clean room, which is used for the decontamination of workers, materials and equipment that are contaminated with asbestos.

**Demolition** – The wrecking or taking out of any load-supporting structural member and any related razing, removing or stripping of asbestos products.

**Disposal bag** – Typically a 6 mil thick sift-proof, dustproof, leak-tight container used to package and transport asbestos waste from regulated areas to the approved landfill. Each bag/container must be labeled/marked in accordance with EPA, OSHA and DOT requirements.

**Disturbance** – Activities that disrupt the matrix of ACM or PACM, crumble or pulverize ACM or PACM, or generate visible debris from ACM or PACM. Disturbance includes

cutting away small amounts of ACM or PACM, no greater than the amount that can be contained in one standard sized glove bag or waste bag in order to access a building component. In no event shall the amount of ACM or PACM so disturbed exceed that which can be contained in one glove bag or disposal bag (which shall not exceed 60 inches in length or width).

**Drum** – A rigid, impermeable container made of cardboard fiber, plastic or metal which can be sealed in order to be sift-proof, dustproof and leak-tight.

**Employee exposure** – The exposure to airborne asbestos that would occur if the employee were not wearing respiratory protection equipment.

**Encapsulant** – A material that surrounds or embeds asbestos fibers in an adhesive matrix and prevents the release of fibers.

**Encapsulation** – Treating ACM with an encapsulant.

**Enclosure** – The construction of an air tight, impermeable, permanent barrier around ACM to control the release of asbestos fibers from the material and also eliminate access to the material.

**Equipment decontamination unit (EDU)** – The area in which equipment is decontaminated before removal from the regulated area.

**Equipment room** – A contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.

**Fiber** – A particulate form of asbestos, 5 microns or longer, with a length to width ratio of at least 3 to 1.

**Fibers per cubic centimeter (f/cc)** – Abbreviation for fibers per cubic centimeter, used to describe the level of asbestos fibers in air.

**Filter** – Media used in respirators, vacuums or other machines to remove particulate from air.

**Firestopping** – Material used to close the open parts of a structure in order to prevent a fire from spreading.

**Friable asbestos-containing material** – Any material containing more than 1 percent asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR 763, Section 1, Polarized Light Microscopy, that , when dry, can be crumbles, pulverized or reduced to powder by hand pressure.

**Glovebag** – Not more than a 60x60 inch impervious plastic bag-like enclosure affixed around and asbestos containing material, with glove-like appendages through which materials and tools may be handled.

**High efficiency particulate air (HEPA) filter** – A filter capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of 0.3 microns or greater in diameter.

**HEAP vacuum** – Vacuum collection equipment equipped with a HEPA filter system capable of collecting and retaining asbestos fibers.

**Homogeneous area** – An area of surfacing, thermal system insulation or miscellaneous ACM that is uniform in color, texture and date of application.

**HVAC** – Heating, Ventilation and Air Conditioning

**Industrial hygienist** – A professional qualified by education, training and experience to anticipate, recognize, evaluate and develop controls for occupational health hazards. Meets definition requirements of the American Industrial Hygiene Association (AIHA).

**Industrial hygienist technician** – A person working under the direction of an IH or CIH who has special training, experience, certifications and licenses required for the industrial hygiene work assigned.

**Intact** – The ACM has not crumbles, been pulverized or otherwise deteriorated so that the asbestos is no longer likely to be bound with its matrix.

**Lockdown** – Applying encapsulant, after a final visual inspection, on all abated surfaces at the conclusion of ACM removal prior to removal of critical barriers.

**National Emission Standards for Hazardous Air Pollutants (NESHAPs)** – EPA's rule to control emissions of asbestos to the environment.

**Negative initial exposure assessment** – A demonstration by the employer which complies with the criteria in 29 CFR 1926.1101 (f)(2)(iii), that employee exposure during an operation is expected to be consistently below the PEL.

**Negative pressure** – Air pressure which is lower than the surrounding area, created by exhausting air from a sealed regulated area through HEPA equipped filtration units. OSHA requires maintaining -0.02" water gauge inside the negative pressure enclosure.

**Negative pressure respirator** – A respirator in which the air pressure inside the facepiece is negative during inhalation relative to the air outside the respirator.

**Non-friable ACM** – Material that contains more than 1 percent asbestos but cannot be crumbled, pulverized or reduced to powder by hand pressure.

**Organic vapor cartridge** – The type of cartridge used in air purifying respirators for organic vapor exposures.

**Outside air** – The air outside buildings and structures, including, but not limited to, the air under a bridge or in an open ferry dock.

**Owner/operator** – Any person who owns, leases, operates, controls or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls or supervises the demolition or renovation operation, or both.

**Penetrating encapsulant** – Encapsulant that is absorbed into the ACM matrix without leaving a surface layer.

**Personal sampling/monitoring** – Representative air samples obtained in the breathing zone of the person using a cassette and battery operated pump to determine asbestos exposure.

**Permissible exposure limit (PEL)** – the level of exposure OSHA allows for an 8 hour time weighted average. For asbestos fibers, the PEL is 0.1 fibers per cc.

**Polarized light microscopy (PLM)** – Light microscopy using dispersion staining techniques and refractive indices to identify and quantify the type(s) of asbestos present in a bulk sample.

**Polyethylene sheeting** – Strong plastic barrier material 4 to 6 mils thick, semi-transparent, sometimes flame retardant in compliance with NFPA 241.

**Positive/negative fit check** – A method verifying the fit of a respirator by closing off the filters and breathing in or closing off the exhalation valve and breathing out while detecting leakage of the respirator.

**Presumed ACM (PACM)** – Thermal system insulation, surfacing and flooring material installed in buildings prior to 1981. If the building owner has actual knowledge, or should have known through the exercise or due diligence that other materials are ACM, they too must be treated as PACM. The designation of PACM may be rebutted pursuant to 29 CFR 1926.1101 (k)(5).

**Professional IH** – An IH who meets the definition requirements of AIHA; meets the definition requirements of OSHA as a “Competent Person” at 29 CFR 1926.1101 (b); must have AHERA type training for supervisors and has completed two specialized EPA approved courses on management and supervision of asbestos abatement projects; has formal training in respiratory protection and waste disposal; and has a minimum of four projects of similar complexity with this project of which at least three projects serving as the supervisory IH.

**Project designer** – A person who has successfully completed the training requirements for and asbestos abatement project designer as required by 40 CFR 763 Appendix C, Part I; (B)(5).

**Protection factor** – A value assigned by OSHA/NIOSH to indicate the assigned protection a respirator should provide if worn properly. The number indicates the reduction of exposure level from outside to inside the respirator.

**Qualitative fit test (QLFT)** – A fit test using a challenge material that can be sensed by the wearer if leakage in the respirator occurs.

**Quantitative fit test (QNFT)** – A fit test using a challenge material which is quantified outside and inside the respirator thus allowing the determination of the actual fit factor.

**Regulated area** – An area established by the employer to demarcate where Class I, II and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work may accumulate; a work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed the PEL.

**Regulated ACM (RACM)** – Friable ACM; Category I non-friable ACM that has become friable; Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading; Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized or reduced to powder by the forces expected to act on the material in the course of the demolition or renovation operation.

**Removal** – All operations where ACM, PACM and/or RACM is taken out or stripped from structures or substrates, including demolition operations.

**Renovation** – Altering a facility or one or more facility components in any way, including the stripping or removal of asbestos from a facility component which does not involve demolition activity.

**Repair** – Overhauling, rebuilding, reconstructing or reconditioning of structures or substrates, including encapsulation or other repair of ACM or PACM attached to structures or substrates.

**Shower room** – The portion of the PDF where personnel shower before leaving the regulated area. Also used for bag/drum decontamination in the EDF.

**Standard operating procedures (SOPs)** – Asbestos work procedures required to be submitted by the contractor before work begins.

**Supplied air respirator (SAR)** – A respirator that utilizes an air supply separate from the air in the regulated area.

**Surfacing ACM** – A material containing more than 1 percent asbestos that is sprayed, troweled on or otherwise applied to surfaces for acoustical, fireproofing and other purposes.

**Surfactant** – A chemical added to water to decrease water’s surface tension thus making it more penetrating into ACM.

**Thermal system ACM** – A material containing more than 1 percent asbestos applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.

**Transmission electron microscopy (TEM)** – A microscopy method that can identify and count asbestos fibers

**Visible emissions** – Any emissions, which are visually detectable without the aid of instruments coming from ACM, PACM, RACM, or ACM waste material.

**Waste generator** – Any owner or operator whose act or process produces asbestos-containing waste material.

**Waste shipment record** – The shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.

**Wet cleaning** – The process of thoroughly eliminating, by wet methods, any asbestos contamination from surfaces or objects.

### 1.4.3 REFERENCED STANDARDS ORGANIZATION

The following acronyms or abbreviations as referenced in contract/specification documents are defined to mean the associated names. Names and addresses may be subject to change.

- A. AIHA American Industrial Hygiene Association  
2700 Prosperity Avenue, Suite 250  
Fairfax, VA 22031  
703-879-8267
  
- B. ANSI American National Standards Institute  
25 West 43rd Street  
New York, NY 10036  
212-642-4900
  
- C. ASTM American Society for Testing and Materials  
100 Barr Harbor Drive  
PO Box C700,  
West Conshohocken, PA, 19428-2959

- D. CFR Code of Federal Regulations  
Government Printing Office  
Washington, DC 20420
  
- E. CGA Compressed Gas Association  
1725 Jefferson Davis Highway Suite 1004  
Arlington, VA 22202  
703-412-0900
  
- F. CS Commercial Standard of the National Institute of Standards and Technology (NIST)  
U. S. Department of Commerce  
Government Printing Office  
Washington, DC 20420
  
- G. EPA Environmental Protection Agency  
401 M ST, SW  
Washington, DC 20024  
202-260-4111
  
- H. NIST National Institute for Standards and Technology  
U. S. Department of Commerce  
Gaithersburg, MD 20234  
301-921-1000
  
- I. NEC National Electrical Code (by NFPA)
  
- J. NEMA National Electrical Manufacturer's Association  
2101 L Street W  
Washington, DC 20037
  
- K. NFPA National Fire Protection Association  
1 Batterymarch Park  
P O Box 9101  
Quincy, MA 02269-9101  
800-344-3555
  
- L. NIOSH National Institute for Occupational Safety and Health  
200 Indep Ave Rm  
Washington, DC 20001  
202-401-0721
  
- M. OSHA Occupational Safety and Health Administration  
U. S. Department of Labor  
Government Printing Office  
Washington, DC 20402

N. SCDHEC South Carolina Department of Health and Environmental Control

O. UL Underwriters Laboratory  
333 Pfingsten Rd.  
Northbrook, IL 60062  
847-272-8129



### **1.5.3 FEDERAL REQUIREMENTS**

Federal requirements which govern some aspect of asbestos abatement include, but are not limited to, the following regulations:

#### **A. Occupational Safety and Health Administration (OSHA)**

1. Title 29 CFR 1926.1101 – Construction Standard for Asbestos
2. Title 29 CFR 1910.132 – Personal Protective Equipment
3. Title 29 CFR 1910.134 – Respiratory Protection
4. Title 29 CFR 1926 – Construction Industry Standards
5. Title 29 CFR 1910.20 – Access to Employee Exposure and Medical Records
6. Title 29 CFR 1910.1200 – Hazard Communication
7. Title 29 CFR 1910.151 – Medical and First Aid

#### **B. Environmental Protection agency (EPA)**

1. Title 40 CFR 61 Subpart A and M (Revised Subpart B) – National Emission Standard for Hazardous Air Pollutants – Asbestos
2. Title 40 CFR 763.80 – Asbestos Hazard Emergency Response Act (AHERA)

#### **C. Department of Transportation (DOT)**

Title 49 CFR 100-185 – Transportation

### **1.5.4 STATE REQUIREMENTS**

State requirements that apply to the asbestos abatement work, disposal, clearance, etc., include, but are not limited to, the following: Asbestos Regulation 61-86.1 Standards of Performance for Asbestos Projects: 2011 revised asbestos rules, South Carolina Code of Laws, Section 44-1-140, 48-1-30 and 44-87-10 and amended, including reference regulations and guidance documents.

### **1.5.5 STANDARDS**

- A. Standards which govern asbestos abatement activities include, but are not limited to, the following:
  - 1. American National Standards Institute (ANSI) Z9.2-79 – Fundamentals Governing the Design and Operation of Local Exhaust Systems Z88.2 – Practices for Respiratory Protection.
  - 2. Underwriters Laboratories (UL) 586-90 – UL Standard for Safety of HEPA Filter Units, 7<sup>th</sup> Edition
  
- B. Standards which govern encapsulation work include, but are not limited to, the following:

American Society for Testing and Materials (ASTM)
  
- C. Standards for Testing Laboratories:
  - 1. Air Sampling – AIHA Accredited
  - 2. Bulk Sampling – NIST Accredited
  
- D. Standards which govern the fire and safety concerns in abatement work include, but are not limited to, the following:
  - 1. National Fire Protection Association (NFPA) 241 – Standard for Safeguarding Construction, Alteration and Demolition Operations.
  - 2. NFPA 701 – Standard Methods for Flame Resistant Textiles and Film
  - 3. NFPA 101 – Life Safety Code

### **1.5.6 GUIDANCE DOCUMENTS**

- A. EPA guidance documents that discuss asbestos abatement work activities are listed below. These documents are made part of this section by reference. EPA publications can be ordered from 800-424-9065.
  
- B. Guidance for Controlling ACM in Buildings (Purple Book) EPA 560/5-85-024
  
- C. Asbestos Waste Management Guidance EPA 530-SW-85-007
  
- D. D. A Guide to Respiratory Protection for the Asbestos Abatement Industry EPA 560-OPTS-86-001

E. Guide to Managing Asbestos in Place (Green Book) TS 799 20T July 1990

### 1.5.7 NOTICES

- A. State and Local agencies: Send written notification as required by state and local regulations including the local fire department prior to beginning any work on ACM as follows:
- B. Copies of notifications shall be submitted to the Owner for the facility's records in the same time frame notification is given to EPA, State and Local authorities.

### 1.5.8 PERMITS/LICENSES

The contractor shall apply for and have all required permits and licenses to perform asbestos abatement work as required by Federal, State and Local regulations.

### 1.5.9 POSTING AND FILING OF REGULATIONS

Maintain copies of applicable federal, state and local regulations. Post licensing and permits at the regulated area where required by SC/DHEC.

### 1.5.10 OWNER RESPONSIBILITIES

Prior to commencement of work:

- A. Notify occupants adjacent to regulated areas of project dates and work requirements for relocation, if needed. Arrangements must be made prior to starting work for relocation of desks, files, and equipment and personal possessions to avoid unauthorized access into regulated area. **Note: Notification of adjacent personnel is required by OSHA in 29 CFR 1926-1101 (k) to prevent unnecessary or unauthorized access to the regulated area.**
- B. Submit to the Abatement Contractor results of background air sampling including location of samples, person who collected the samples, equipment utilized and method of analysis. During abatement submit to the Asbestos Contractor results of bulk material analysis and air sampling data collected during the course of the abatement. This information shall not release the Contractor from any responsibility for OSHA compliance.

### 1.5.11 SITE SECURITY

- A. Regulated area access is to be restricted only to authorized, trained/accredited and protected personnel. These may include the Abatement Contractor's employees, employees of Subcontractors, Owner employees and representatives, State and Local inspectors and any other designated individuals. A list of authorized personnel

shall be established prior to commencing the project and be posted in the clean room of the decontamination unit.

- B. Entry into the regulated area by unauthorized individuals shall be reported immediately to the Competent Person by anyone observing the entry.
- C. A log book shall be maintained. Anyone who enters the regulated area must record their name, affiliation, time in and time out for each entry.
- D. Access to the regulated area shall be through a personnel decontamination unit. All other access (doors, windows, hallways, etc.) shall be sealed to prevent entry to or exit from the regulated area. The only exceptions for this requirement are the waste load-out area (which shall be sealed except during the removal of containerized asbestos waste from the regulated area) and emergency exits. Emergency exits shall not be locked from the inside, however, they shall be sealed with poly sheeting and taped until needed.
- E. The Abatement Contractor's Competent Person shall control site security during abatement operations in order to isolate work in progress and protect adjacent personnel.
- F. The Abatement Contractor will have the Owner's assistance in notifying adjacent personnel of the presence, location and quantity of ACM in the regulated area and enforcement of restricted access by the Owner's employees.
- G. The regulated area shall be locked during non-working hours and secured by Owner security.

#### **1.5.12 EMERGENCY ACTION PLAN AND ARRANGEMENTS**

- A. An Emergency Action Plan shall be developed by the Abatement Contractor prior to commencing abatement activities and shall be agreed to by the Abatement Contractor and the Owner. The Plan shall meet the requirements of 29 CFR 1910.38 (a);(b).
- B. Emergency procedures shall be in written form and prominently posted and available in the regulated area. Everyone, prior to entering regulated area, must read and sign these procedures to acknowledge understanding of the regulated area layout, location of emergency exits and emergency procedures.
- C. Emergency planning shall include written notification of police, fire and emergency medical personnel of planned abatement activities; work schedule and layout or regulated area, particularly barriers that may affect response capabilities.
- D. Emergency planning shall include consideration of fire, explosion, hazardous atmospheres, electrical hazards, slips/trips and falls, confined spaces and heat

stress illness. Written procedures for response to emergency situations shall be developed and employee training in procedures shall be provided.

- E. Employees shall be trained in regulated area/site evacuation procedures in the event of workplace emergencies.
  - 1. For non life-threatening situations – employees injured or otherwise incapacitated shall decontaminate following normal procedures with assistance from fellow workers, if necessary, before exiting the regulated area to obtain proper medical treatment.
  - 2. For life-threatening injury or illness worker decontamination shall take least priority. After measures to stabilize the injured worker remove them from the regulated area and secure proper medical treatment.
- F. Telephone numbers of all emergency response personnel shall be prominently posted at the regulated area boundary along with the location of the nearest telephone.
- G. The Abatement Contractor shall provide verification of first aid/CPR training for personnel responsible for providing first aid/CPR. OSHA requires medical assistance within 3 minutes of a life-threatening injury/illness. Bloodborne Pathogen training shall also be verified for those personnel required to provide first aid/CPR.
- H. The Emergency Action Plan shall provide for a contingency plan in the event that an incident occurs that may require the modification of the standard operating procedures during abatement. Such incidents include, but are not limited to, fire, accident and power failure. The Abatement Contractor shall detail procedures to be followed in the event of an incident assuring that work is stopped and wetting is continued until correction of the problem.

### **1.1.13 PRE-CONSTRUCTION MEETING**

Prior to commencing the work the Abatement Contractor shall meet with the Owner's Industrial Hygienist/Consultant to present and review, as appropriate, the items following this paragraph. The Abatement Contractor's Competent Person(s) who will be on-site shall participate in the pre-construction meeting. The pre-construction meeting is to discuss and determine procedures to be used during the project. At this meeting the Abatement Contractor shall provide:

- A. Proof of Contractor licensing.
- B. Proof the Competent Person is trained and accredited and approved for working in this State. Verification of the experience of the Competent Person shall also be presented.

- C. A list of all workers who will participate in the project, including experience and verification of training, accreditation and licensing.
- D. A list of and verification of training for all personnel who have current first aid/CPR training. A minimum of one person per shift must have adequate training.
- E. Current medical written opinions for all personnel working on-site meeting the requirements of 29 CFR 1926.1101 (m).
- F. Current fit-tests for all personnel wearing respirators on-site meeting the requirements of 29 CFR 1926.1101 (h) and Appendix C.
- G. A copy of the Abatement Contractor's Standard Operating Procedures for Asbestos Abatement. In these procedures the following information must be detailed, specific for this project. Regulated area preparation procedures:
  - 1. Notification requirements procedure of Contractor as required in 29 CFR 1926.1101 (d).
  - 2. Equipment area set-up/layout and decontamination procedures for employees.
  - 3. Abatement methods/procedures and equipment to be used
  - 4. Personal protective equipment to be used
- H. At this meeting the Contractor shall provide all submittals as required.
- I. Procedures for handling, packaging and disposal of asbestos waste.
- J. Emergency Action Plan and Contingency Procedures.

## **1.5 PROJECT COORDINATION**

The following are the minimum administrative and supervisory personnel necessary for coordination of the work.

### **1.6.1 PERSONNEL**

- A. Administrative and supervisory personnel shall consist of a qualified Competent Person as defined by OSHA in the Construction Standards of the Asbestos Construction Standard; Contractor Professional Hygienist, Industrial Hygiene Technicians and current AHERA trained and certified personnel. These employees are the Contractor's representatives responsible for compliance with these specifications and all other applicable requirements.

B. Non-supervisory personnel shall consist of an adequate number of qualified personnel to meet the schedule requirements of the project. Personnel shall meet required qualifications. Personnel utilized on-site shall be pre-approved by the Owner's representative. A request for approval shall be submitted for any person to be employed during the project giving the person's name, social security number, qualifications, Certificate of Worker's Acknowledgement, and Affidavit of Medical Surveillance and Respiratory Protection.

C. Minimum qualifications for Abatement Contractor and assigned personnel:

1. The abatement contractor must have been licensed as an asbestos abatement contractor by the state for a minimum of three (3) years. The Abatement Contractor has conducted within the last three (3) years, two (2) projects of similar complexity and dollar value as this project; has not been cited and/or penalized for serious violations of asbestos regulations in the past twelve (12) months; has adequate and qualified personnel available to complete the work; has comprehensive standard operation procedures for asbestos work; has adequate materials, equipment and supplies to perform the work.
2. The Competent Person has four (4) years of abatement experience of which two (2) years were as the Competent Person on the project; meets the OSHA definition of a Competent Person; has been the Competent Person on two (2) projects of similar size and complexity as this project; has completed EPA AHERA/OSHA/State/Local training requirements/accreditation(s) and refreshers; and has all required OSHA documentation related to medical and respiratory protection.
3. The Abatement Personnel shall have completed the EPA AHERA/OSHA abatement worker course; have training on the standard operating procedures of the Abatement Contractor; has one year of asbestos abatement experience; has applicable medical and respiratory protection documentation; has certificate of training and State accreditation/license.

**\*\*\* The low, qualified bidder must show proof of the above requirements.**

## **1.7 RESPIRATORY PROTECTION**

### **1.7.1 GENERAL- RESPIRATORY PROTECTION PROGRAM**

The Abatement Contractor shall develop and implement a Respiratory Protection Program (RPP) which is in compliance with the January 8, 1998 OSHA requirements found at 29 CFR 1926.1101 and 29 CFR 1910.132;134. ANSI Standard Z88.2-1992 provides excellent guidance for developing a respiratory protection program. All respirators used must be NIOSH approved for asbestos abatement activities. The written respiratory protection shall, at minimum, contain the basic requirements found at 29 CFR 1910.134 (c)(1)(i-ix) – Respiratory Protection Program.

### **1.7.2 RESPIRATORY PROTECTION PROGRAM COODINATOR**

The Respiratory Protection Program Coordinator (RPPC) must be identified and shall have two (2) years experience coordinating the program. The RPPC must provide a signed statement attesting to the fact that the program meets the above requirements.

### **1.7.3 SELECTION AND USE OF RESPIRATORS**

The procedure for the selection and use of respirators must be submitted to the Owner as part of the Abatement Contractor's qualification. The procedure must be written clearly enough for workers to understand. A copy of the Respiratory Protection Program must be available in the clean room of the decontamination unit for reference by employees or authorized visitors.

### **1.7.4 MINIMUM RESPIRATORY PROTECTION**

Minimum respiratory protection shall be a half face air purifying respirator when fiber levels are maintained consistently at or below 0.1 f/cc. A higher level of respiratory protection may be provided or required depending on fiber levels. Respirator selection shall meet the requirements of 29 CFR 1926.1101 (h); Table 1, except as indicated in this paragraph. Abatement personnel must have a respirator for their exclusive use.

### **1.7.5 MEDICAL WRITTEN OPINION**

No employee shall be allowed to wear a respirator unless a physician has determined they are capable of doing so and has issued a written opinion for that person.

### **1.7.6 RESPIRATOR FIT TEST**

All personnel wearing respirators shall have a current qualitative/quantitative fit test which was conducted in accordance with 29 CFR 1910.134 (f) and Appendix A

### **1.7.7 RESPIRATOR FIT CHECK**

The Competent Person shall assure that the positive/negative fit check is done each time the respirator is donned by an employee. Headcoverings must cover respirator headstraps. Any situation that prevents an effective facepiece to face seal as evidenced by failure of a fit check shall preclude that person from wearing a respirator until resolution of the problem.

### **1.7.8 MAINTENANCE AND CARE OF RESPIRATORS**

The Respiratory Protection Program Coordinator shall submit evidence and documentation showing compliance with 29 CFR 1910.134 (h) Maintenance and Care of Respirators.



## **1.8 WORKER PROTECTION**

### **1.8.1 TRAINING OF ABATEMENT PERSONNEL**

Prior to beginning any abatement activity all personnel shall be trained in accordance with OSHA 29 CFR 1926.1101 (k)(9) and any additional State/Local requirements. Training must include, at a minimum, the elements listed at 29 CFR 1926.1101 (k)(9)(viii). Training shall have been conducted by a third party, EPA/State approved trainer meeting the requirements of EPA 40 CFR 763 Appendix C (AHERA MAP). Initial training certificates and current refresher and accreditation proof must be submitted for each person working at the site.

### **1.8.2 MEDICAL EXAMINATIONS**

Medical examinations meeting the requirements of 29 CFR 1926.1101 (m) shall be provided for all personnel working in the regulated area, regardless of exposure levels. The physician's written opinion as required by 29 CFR 1926.1101 (m)(4) shall be provided for each person and shall include a statement that the person has been evaluated for working in a heat environment while wearing personal protective equipment and is able to perform the work.

### **1.8.3 PROTECTIVE CLOTHING**

Provide boots, booties, hard hats, goggles, clothing, respirators and any other personal protective equipment as determined by conducting the hazard assessment required by OSHA at 29 CFR 1910.132 (d). Provide all personnel entering the regulated area with disposable full body coveralls, disposable head covering, and 18 inch boot coverings. The Competent Person shall ensure the integrity of personal protective equipment worn for the duration of the project. Provide plastic/rubber disposable gloves for hand protection. Cloth type gloves may be worn under plastic/rubber gloves, but cannot be used alone. Duct tape shall be used to secure all suits sleeves to wrists and to secure foot coverings at the ankle.

### **1.8.4 REGULATED AREA ENTRY PROCEDURE**

The Competent Person shall ensure that each time workers enter the regulated area they observe and follow all required procedures and wear appropriate personal protective equipment. 29 CFR 1926.1101 (j)

### **1.8.5 DECONTAMINATION PROCEDURE**

The Competent Person shall require all personnel to adhere to OSHA Asbestos Standard – Construction 29 CFR 1926.1101 (j) as well as following decontamination procedures herein whenever they enter or exit the regulated area:

When exiting the regulated area remove and dispose of disposable coveralls, disposable head coverings, and foot coverings or boots in the equipment room.

All personnel shall maintain respiratory protection into the shower and until wetted completely.

Personnel shall dispose of wetted filters from respirators and continue full shower out procedures.

**All personnel shall shower completely.**

### **1.8.6 REGULATED AREA REQUIREMENTS**

The Competent Person shall meet all requirements of 29 CFR 1926.1101 (o) and assure that all requirements for regulated areas at 29 CFR 1926.1101 (e) are met. All personnel in the regulated area shall not be allowed to eat, drink, smoke, chew tobacco or gum, apply cosmetics, or in any way interfere with the fit of their respirator.

## **PART 2 – PRODUCTS, MATERIALS AND EQUIPMENT**

### **2.1 MATERIAL AND EQUIPMENT**

#### **2.1.1 GENERAL REQUIREMENTS (all abatement projects)**

Prior to the start of the work, the abatement contractor shall provide and maintain sufficient quantity of materials and equipment to assure continuous and efficient work throughout the duration of the project.

- A. All materials shall be delivered in their original package, container or bundle bearing the name of the manufacturer and the brand name (where applicable).
- B. Store all materials subject to damage off the ground, away from wet or damp surfaces and under cover sufficient enough to prevent damage or contamination. Flammable materials cannot be stored inside buildings. Replacement materials shall be stored outside of the regulated/work area until abatement is completed.
- C. The Abatement Contractor shall not block or hinder use of buildings by staff or visitors to the Owner's partially occupied buildings by placing materials/equipment in any unauthorized place.
- D. The Competent Person shall inspect for damaged, deteriorating or previously used materials. Such materials shall not be used and shall be removed from the worksite and disposed of properly.
- E. Poly sheeting used for isolation purposes shall be a minimum of 6 mils in thickness.
- F. If required, the method of attaching polyethylene sheeting shall be agreed upon in advance by the Contractor and the Owner and selected to minimize damage to equipment and surfaces. Method of attachment may include any combination of moisture resistant duct tape or other waterproof tape, furring strips, spray glue, staples, nails, screws, lumber and plywood for enclosures or other effective procedures capable of sealing polyethylene to dissimilar finished or unfinished surfaces under both wet and dry conditions (including the use of amended water)
- G. An adequate number of HEPA vacuums, negative air machines, airless sprayers, air sampling pumps and loaded filter cassettes shall be on-site and available for contractor's use.
- H. An adequate number of negative air machines (NAM), scrapers, nylon brushes, disposable mops, rags, sponges, staple guns, and shovels shall be provided. All electrically operated hand tools, equipment, and electric cords shall be equipped with ground-fault circuit protection and banned from within the containment.
- I. Special protection for objects in the regulated area shall be detailed.

- J. Impermeable drums and 6 mil disposal bags for asbestos waste shall be pre-printed with labels and markings as required by OSHA, EPA and DOT regulations.
- K. Impermeable asbestos disposal drums shall be metal or fiberboard with locking ring tops with required OSHA, EPA and DOT labels and markings.
- L. The Owner shall be provided a copy of the SDS as required for all hazardous chemical under OSHA 29 CFR 1910.1200 – Hazard Communication. Methylene chloride shall not be used with any spray adhesive or other product. **Appropriate encapsulant(s) shall be provided which are compatible with structural steel re-spray applications.**
- M. DANGER signs, as many as required by OSHA 29 CFR 1926.1101(k)(7) shall be provided and placed by the Competent Person. All other posters and notices required by Federal and State regulations shall be posted in the Clean Room.
- N. Adequate respirators, disposable protective clothing, hard hats, goggles, gloves and footwear for the project/number of personnel/shifts shall be provided. All personal protective equipment issued must be based on a hazard assessment conducted under 29 CFR 1910.132(d).

## **2.2 CONTAINMENT BARRIERS AND COVERINGS IN THE REGULATED AREA**

### **2.2.1 GENERAL**

Using the critical barriers seal off the perimeter to the regulated area to completely isolate the regulated area from adjacent spaces. All surfaces in the regulated area must be covered as needed to prevent contamination and to facilitate clean-up. Should adjacent areas become contaminated immediately stop work, contain area and clean up the contamination at no additional cost to the Owner.

### **2.2.2 PREPARATION PRIOR TO SEALING THE REGULATED AREA**

Remove all uncontaminated removable furniture, equipment and/or supplies from the regulated area before commencing work or completely cover with two layers of 6 mil ploy sheeting and secure with duct tape. Place all tools, scaffolding, materials and equipment needed for working in the regulated area prior to completion of the decontamination unit.

### **2.2.3 CONTROLLING ACCESS TO THE REGULATED AREA**

The Competent Person shall allow access to the regulated area only to those personnel authorized to work in the regulated area. If the regulated area is adjacent to or within view of an occupied area, provide a visual barrier of opaque/black poly sheeting at least 4 mils thick to prevent building occupant observation.

## 2.2.4 CRITICAL BARRIERS

Completely separate any openings into the regulated area from adjacent areas using poly at least 6 mils thick and duct tape. **Individually seal with metal duct blanks all HVAC openings into the regulated area followed by two layers of 6 mil poly and duct tape.** Individually seal all lighting fixtures, clocks, doors, windows, convectors, speakers or any other objects in the regulated area. Use care with hot/warm surfaces.

## 2.2.5 EXTENSION OF THE REGULATED AREA

If the enclosure of the regulated area is breached in any way that could allow contamination to occur, the affected area shall be included in the regulated area and constructed as per this section. If the affected area cannot be added to the regulated area, decontamination measures must be started immediately and continue until air monitoring indicates background levels are met.

## 2.3 MONITORING, INSPECTION AND TESTING

### 2.3.1 GENERAL

- A. Perform throughout abatement work monitoring, inspection and testing inside and around the regulated area in accordance with the OSHA requirements and these specifications. The Contractor's supervisor/competent person shall continuously inspect and monitor conditions inside the regulated area to ensure compliance with these specifications. In addition, the Contractor's Competent Person or IH shall personally manage air sample collection, analysis and evaluation for personnel samples to satisfy OSHA requirements. Additional inspection and testing requirements are also indicated in other parts of this specification.
- B. The Owner will employ an independent industrial hygienist consultant and/or use its own IH to perform various services on behalf of the Owners. The IH will perform the necessary monitoring, inspection, testing and other support services to ensure that the Owner's employees and visitors will not be adversely affected by the abatement work, and that the abated areas or abated buildings have been successfully decontaminated. The work of the IH consultant in no way relieves the Abatement Contractor from their responsibility to perform the work in accordance with contract/specification requirements, to perform continuous inspection, monitoring and testing for the safety of their employees, and to perform other such services as specified. The cost of the IH and their services will be borne by the Owner except for any repeat of final inspection and testing that may be required due to unsatisfactory initial results. Any repeated final inspections and/or testing, if required, will be paid for by the Abatement Contractor.
- C. If fibers counted by the IH during abatement work, either inside or outside the regulated area, utilizing the NIOSH 7400 air monitoring method, exceed the specified respective limits, the Abatement Contractor shall stop work. The

Abatement Contractor may request confirmation of the results by analysis of the samples by TEM. Request must be in writing and submitted to the Owner's representative. Cost for the confirmation of results will be borne by the Abatement Contractor for both the collection and analysis of samples and for the time delay that may/does result for this confirmation. Confirmation sampling and analysis will be the responsibility of the Contractor's Competent Person or IH with review and approval of the Owner's representative.

### **2.3.2 SCOPE OF SERVICES OF THE OWNER'S CONSULTANT**

- A. The purpose of the work of the Owner's IH is to: assure quality; resolve problems; conduct air monitoring to comply with State regulations; and prevent the spread of contamination beyond the regulated area. In addition, their work includes performing the final inspection and testing to determine whether the regulated area or building has been adequately decontaminated. All clearance air monitoring is to be done utilizing TEM sampling protocols after approval from the Owner's IH. The Owner's IH will perform the following tasks:
1. Establish background levels before abatement begins by collecting background PCM and TEM air samples.
  2. Perform continuous air monitoring, inspection and testing outside the regulated area during actual abatement work to detect any faults in the regulated area isolation and any adverse impact on the surroundings from regulated area activities.
  3. Perform unannounced visits to spot check overall compliance of work with contract/specifications. These visits may include any inspection, monitoring and testing inside and outside the regulated area and all aspects of the operation except personnel monitoring.
  4. Provide support to the Owner's representative such as evaluation of submittals from the Abatement Contractor, resolution of unforeseen developments, etc.
  5. Perform, in the presence of the Owner's representative, final inspection and testing of a decontaminated regulated area or building at the conclusion of the abatement and clean-up work to certify compliance with the Owner requirements.
- B. All data, inspection results and testing results generated by the Owner's IH consultant will be available to the Abatement Contractor for information and consideration. The Abatement Contractor shall cooperate with and support the Owner's IH consultant for efficient and smooth performance of their work.

- C. The monitoring and inspection results of the Owner's IH consultant will be used by the Owner to issue any stop removal orders to the Abatement Contractor during abatement work and to accept or reject a regulated area or building as decontaminated.

### **2.3.3 MONITORING, INSPECTION AND TESTING BY ABATEMENT CONTRACTOR**

The contractor's Competent Person/Supervisor is responsible for the continuous monitoring of all subsystems and procedures that could affect the health and safety of the Abatement Contractor's personnel. Safety and health conditions and the provision of those conditions inside the regulated area for all persons entering the regulated area are the exclusive responsibility of the Abatement Contractor/Competent Person. The Abatement Contractor/Competent Person shall be responsible for and shall maintain a log for personnel air monitoring to comply with OSHA requirements for air monitoring for asbestos in 29 CFR 1926.1101(f), (g) and Appendix A. This log shall be made available to the Owner's representative. The log will contain, at a minimum, information on personnel or area sampled, other persons represented by the sample, the date of sample collection, start and stop times for sampling, sample volume, flow rate, and fibers/f/cc. Take and analyze samples for each representative job being done in the regulated area. i.e., removal, wetting, clean-up and load-out. No fewer than two personal samples per shift shall be collected. Sampling results must be provided and posted within 24 hours of collection. The Owner's IH shall be responsible for inspection and air monitoring as required by State regulations. In addition to the daily monitoring required, the Owner's IH will perform inspection and testing at the final stages of abatement for each regulated area.

### **2.4 STANDARD OPERATING PROCEDURES**

The Asbestos abatement Contractor shall have established Standard Operating Procedures (SOPs) in printed form and loose leaf folder consisting of simplified text, diagrams, sketches and pictures that establish and explain clearly the ways and procedures to be followed during all phases of the work by the contractor's personnel. The SOPs must be modified as needed to address specific requirements of the project. The SOPs shall be submitted for review and approval prior to the start of any abatement work. The minimum topics and areas to be covered by the SOPs are:

- A. Minimum Personnel Qualifications
- B. Contingency Plans and Arrangements
- C. Security and Safety Procedures
- D. Respiratory Protection/Personal Protective Equipment Program and Training
- E. Medical Surveillance Program and Recordkeeping

- F. Regulated Area Requirements and Removal procedures for Spray Applied Acoustical Ceiling Finish Abatement
- G. Decontamination Procedures
- H. Monitoring, Inspections and Testing
- I. Removal Procedures for Floor Tile and Mastic
- J. Disposal of Waste ACM and ACE
- K. Regulated Area Decontamination/Clean-up
- L. Regulated Area Visual and Air Clearance
- M. Project Completion/Closeout

## **2.5 SUBMITTALS**

### **2.5.1 PRE-CONSTRUCTION MEETING SUBMITTALS**

Submit to the Owner a minimum of 5 days prior to the pre-construction meeting the following for review and approval. Meeting this requirement is a prerequisite for the pre-construction meeting for this project.

- A. Submit a detailed work schedule for the entire project reflecting contract documents and the phasing/schedule requirements.
- B. Submit a staff organization chart showing all personnel who will be working on the project and their capacity/function. Provide their qualifications, training, accreditations and licenses as appropriate.
- C. Submit Standard Operating Procedures developed specifically for this project, incorporating the requirements of the specifications.
- D. Submit the specifics of the materials and equipment to be used for this project with brand names, model numbers, performance characteristics, pictures/diagrams and number available for the following:
  - 1. HEPA vacuums, air monitoring pumps, calibration devices, negative air machines and emergency power generating system.
  - 2. Encapsulants, surfactants, hand held sprayers, airless sprayers, glovebags and fire extinguishers.
  - 3. Respirators, protective clothing and personal protective equipment



4. Fire safety equipment to be used in the regulated area.
- E. Submit the name, location and phone number of the approved landfill; proof/verification that landfill is approved for ACM disposal; the landfill's requirements for ACM waste; the type of vehicle to be used for transportation; and name, address and phone number of subcontractor, if used. Proof of asbestos training for transportation personnel shall be provided.
  - F. Submit required notifications and arrangements made with regulatory agencies having regulatory jurisdiction and the specific contingency/emergency arrangements made with local health, fire, ambulance, hospital authorities and any other notifications/arrangements.
  - G. Submit the name, location and verification of the laboratory and/or personnel to be used for analysis of air and/or bulk samples. Air monitoring must be done in accordance with OSHA 29 CFR 1926.1101(f) and Appendix A.
  - H. Submit qualifications verification: Submit the following evidence of qualifications. Make sure that all references are current and verifiable by providing current phone numbers and documentation.
    1. Asbestos Abatement Company: Project experience within the past 3 years, listing projects first most similar to this project:  
  
Project Name; Type of Abatement; Duration; Cost; Reference Name/Phone Number; Final Clearance; Completion Date
    2. List of project(s) halted by Owner, A/E, IH. Regulatory agency in the last 3 years:  
  
Project Name; Reason; Date; Reference Name/Number; Resolution
    3. List asbestos regulatory citations, penalties, damages paid and legal actions taken against the company in the last 3 years. Provide copies and all information needed for verification.
  - I. Submit information on personnel: Provide a resume; address each item completely; provide references; phone numbers; copied of certificates; accreditations; and licenses. Submit an affidavit signed by the Contractor's Competent Person or IH stating that all personnel submitted below have medical records in accordance with OSHA 29 CFR 1926.1101(m) and 29 CFR 1910.20 and that the company has implemented a medical surveillance program and maintains recordkeeping in accordance with the above regulations. Submit the phone number and doctor/clinic/hospital used for medical evaluations.

1. Competent Person(s)/Supervisor(s): Number; names; social security numbers; years of abatement experience as Competent Person/Supervisor; list of similar projects as Competent Person/Supervisor; as a worker; certificates; licenses; accreditations; proof of AHERA/OSHA specialized asbestos training; maximum number of personnel supervised on a project; medical opinion; and current respirator fit test.
  2. Workers: Numbers; names; social security numbers; years of abatement experience; certificates; licenses; accreditations; training courses in asbestos abatement and respiratory protection; medical opinion; and current respirator fit test.
- J. Submit copies of State license for asbestos abatement; copy of insurance policy, including exclusions with a letter from agent stating in plain English the coverage provided and the fact that asbestos abatement activities are covered by the policy; copy of SOPs incorporating the requirements of this specification; information on who provides your training, how often; who does and how is air monitoring conducted; a list of references of independent laboratories/IH's familiar with your air monitoring projects listed as analytical method(s) used.
- K. When rental equipment is to be used in a regulated area, the Contractor shall obtain written consent from the Rental Company and provide to the Owner's IH a copy of the letter indicating the projected use of the rental equipment to include a description of the area in which the rental equipment is to be used. The Contractor shall assure complete decontamination of the rental equipment before return to the rental agency.

## **2.5.2 SUBMITTALS DURING ABATEMENT**

- A. The Competent Person/Supervisor shall maintain and submit a daily log at the regulated area documenting the dates and times of the following: purpose, attendees and summary of meetings; all personnel entering/exiting the regulated area; document and discuss the resolution of unusual events such as critical barrier breaching, equipment failures, emergencies and any cause for stopping work; representative OSHA compliance air monitoring and results/TWAs/ELs within 24 hours of air monitoring completion. Submit this daily log to Owner's representative.
- B. The Contractor's Competent Person/Supervisor shall document and maintain the following during abatement and submit as appropriate to the Owner's representative.
1. Inspection and approval of the regulated area preparation prior to start of work, daily and during work.
  2. Removal of any poly barriers.

3. Visual inspection/testing by the Owner's IH prior to application of lockdown encapsulation.
4. Packaging and removal of ACM waste from regulated area.
5. Disposal of ACM/ACE waste materials; copies of Waste Shipment Records/landfill receipts to the Owner's representative on a weekly basis.

### **2.5.3 SUBMITTALS AT COMPLETION OF ABATEMENT**

The Contractor's Competent Person or IH shall submit a project report consisting of the daily log book requirements and documentation of events during the abatement project including Waste Shipment Records signed by the landfill's agent. The report shall include a certificate of visual inspection, signed and dated by the Contractor's Supervisor, in accordance with Attachment #1. Data strips from manometer(s) indicating consistent negative pressure at or below -0.02 inches WC.

### **2.6 CERTIFICATES OF COMPLIANCE**

The Abatement Contractor shall submit to the Owner's representative certification from the manufacturer indicating compliance with performance requirements for encapsulants when applied according to manufacturer recommendations.

### **2.7 RECYCLABLE PROTECTIVE CLOTHING**

If recyclable clothing is provided, all requirements of EPA, DOT and OSHA shall be met.

## **PART 3 – EXECUTION**

### **3.1 PRE-ABATEMENT ACTIVITIES**

#### **3.1.1 PRE-ABATEMENT MEETING**

The Owner's representative, upon receipt, review and approval of all pre-abatement submittals, will arrange for a pre-abatement meeting between the abatement contractor, the Owner's representative(s) and the Owner's IH. The purpose of the meeting is to discuss any aspect of the submittals needing clarification or amplification and to discuss any aspect of the project execution and the sequence of the operation. The abatement contractor shall be prepared to provide any supplemental information/documentation to the Owner's representative regarding any submittals, documentation, materials or equipment. Upon satisfactory resolution of any outstanding issues the Owner's representative will issue a written order to proceed to the Abatement Contractor. No abatement work of any kind described in the following provisions shall be initiated prior to the Owner's written order to proceed.

### 3.1.2 PRE-ABATEMENT INSPECTIONS AND PREPARATIONS

Before any work begins on the construction of the regulated area the Abatement Contractor will:

- A. Conduct a space-by-space inspection with an authorized Owner representative and prepare a written inventory of all existing damage in those spaces where asbestos abatement will occur. Still or video photography may be used to supplement the written damage inventory. Document will be signed and certified as accurate by both parties.
- B. Ensure that all furniture, machinery, equipment, curtains, drapes, blinds and other movable objects which the abatement contractor is required to remove from the regulated area have been cleaned and removed or properly protected from contamination.
- C. Shut down and seal with **metal duct blanks** followed by a minimum of 2 layers of 6 mil poly all HVAC systems serving the regulated area. The regulated area critical barriers shall be completely isolated from any other air in the building. The Owner's IH will monitor the isolation provision.
- D. Shut down and lock out in accordance with 29 CFR 1910.147 all electrical circuits which pose a potential hazard. Electrical arrangements will be tailored to the particular regulated area and the systems involved. All electrical circuits affected will be turned off at the circuit box outside the regulated area, not just the wall switch. The goal is to eliminate the potential for electrical shock which is a major threat to life in the regulated area due to water use and possible energized circuits. Electrical lines used to power equipment in the regulated area shall conform to all electrical safety standards and shall be isolated by the use of a ground fault circuit interrupter (GFCI). All GFCI shall be tested prior to use.
- E. **If present, remove and dispose of carpeting from floors in the regulated area.**

### 3.1.3 PRE-ABATEMENT CONSTRUCTION AND OPERATIONS

- A. Perform all preparatory work for the regulated area in accordance with the approved work schedule and with this specification.
- B. Upon completion of all preparatory work the Contractor will inspect the work and systems and will notify the Owner's representative when the work is completed in accordance with this specification. The Owner's representative will inspect the regulated area and the systems with the Owner's IH and may require that upon satisfactory inspection the Abatement Contractor's employees perform all major aspects of the approved SOPs, especially worker protection, respiratory systems,

contingency plans, decontamination procedures and monitoring to demonstrate satisfactory operation.

- C. Owner's IH shall document the pre-abatement activities described above and deliver a copy to the Owner's representative.
- D. Upon satisfactory inspection of the installation of and operation of systems the Owner's IH will notify the Abatement Contractor in writing to proceed with the asbestos abatement work in accordance with this specification.

## **3.2 REGULATED AREA PREPARATIONS**

### **3.2.1 OSHA DANGER SIGNS**

Post OSHA DANGER signs meeting the specifications of OSHA 29 CFR 1926.1101 at any location and approaches to the regulated area where airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from the regulated area to permit any personnel to read the sign and take the necessary measures to avoid exposure. Additional signs will be posted following construction of the regulated area enclosure.

### **3.2.2 SHUT DOWN-LOCK OUT ELECTRICAL**

Shut down and lock out electric power to the regulated area. Provide temporary power and lighting. Insure safe installation including GFCI of temporary power sources and equipment by compliance with all applicable electrical code requirements and OSHA requirements for temporary electrical systems. Electricity shall be provided by the Owner.

### **3.2.3 SHUT DOWN-LOCK OUT HVAC**

- Shut down and lock out heating, cooling and air conditioning system (HVAC) components that are in, supply or pass through the regulated area. Shut down and seal with **metal duct blanks** followed by a minimum of 2 layers of 6 mil poly all HVAC system returns serving the regulated area. The regulated area critical barriers shall be completely isolated from any other air in the building. The Owner's IH will monitor the isolation provision.

### **3.2.4 SANITARY FACILITIES**

The Owner shall provide sanitary facilities for abatement personnel. Designated facilities will be maintained in a clean and sanitary condition throughout the abatement project. The sanitary facilities will be returned to the Owner in a condition comparable to that in which it was given.

### **3.2.5 PRE-CLEANING MOVEABLE OBJECTS**

Pre-clean all moveable objects within the regulated area using a HEPA filtered vacuum and/or wet cleaning methods as appropriate. After cleaning these objects shall be removed from the regulated area and carefully stored in an uncontaminated location. Drapes, clothing, upholstered furniture and other fabric items should be disposed of as asbestos contaminated waste. Cleaning these asbestos contaminated items utilizing HEPA vacuum techniques and off-premises steam cleaning is very difficult and cannot guarantee decontamination. Since adequate cleaning of contaminated fabrics is difficult the Owner will determine whether this option is appropriate. Carpeting will be disposed of prior to abatement if in the regulated area.

### **3.2.6 PRE-CLEANING FIXED OBJECTS**

Pre-clean all fixed objects in the regulated area using HEPA filtered vacuums and/or wet cleaning techniques as appropriate. After pre-cleaning, enclose fixed objects with 1 layer of 6 mil poly and seal securely in place with duct tape. Objects (e.g., permanent fixtures, shelves, electronic equipment, laboratory tables, sprinklers, alarm systems, closed circuit TV equipment and computer cables) which must remain in the regulated area and that require special ventilation or enclosure requirements should be designated here along with specified means of protection. Contact the manufacturer for special protection requirements.

### **3.2.7 PRE-CLEANING SURFACES IN THE REGULATED AREA**

Pre-clean all surfaces in the regulated area using HEPA filtered vacuums and/or wet cleaning methods as appropriate. Do not use any methods that would raise dust such as dry sweeping or vacuuming with equipment not equipped with HEPA filters. Do not disturb asbestos-containing materials during this pre-cleaning phase.

## **3.3 CONTAINMENT BARRIERS AND COVERINGS FOR THE REGULATED AREA**

### **3.3.1 GENERAL**

Seal off any openings at the perimeter of the regulated area with critical barriers to completely isolate the regulated area and to contain all airborne asbestos contamination created by the abatement activities. Should the adjacent area past the regulated area become contaminated due to improper work activities the abatement contractor shall suspend work inside the regulated area, continue wetting and clean the adjacent areas in accordance with procedures described in these specifications. Any and all costs associated with the adjacent area cleanup shall not be borne by the Owner.

### **3.3.2 PREPARATION PRIOR TO SEALING OFF**

Place all scaffold, ladders, materials, equipment and supplies necessary to isolate the regulated area inside the regulated area. Remove all movable material/equipment as described above and secure all unmovable material/equipment as described above.

### **3.3.3 CONTROLLING ACCESS TO THE REGULATED AREA**

Access to the regulated area shall be permitted only by the Competent Person, Owner's IH and Project Designer through the decontamination facility. All other means of access shall be closed off by proper sealing and DANGER signs posted on the clean side of the regulated area where it is adjacent to or within view of any occupiable area. An opaque/black visual barrier of at least 4 mil poly shall be provided so that the abatement work is not visible to any building occupants. Provide an appropriate number of OSHA DANGER signs for each visual and physical barrier. Any alternative method must be given a written approval by the Owner's representative.

### **3.3.4 CRITICAL BARRIERS**

The regulated area must be completely separated from the adjacent areas, and the outside by at least 2 layers of 6 mil poly and duct tape/spray adhesive. Individually seal all supply and exhaust ventilation openings, lighting fixtures, clocks, doorways, windows, convectors, speakers and other openings into the regulated area with 2 layers of 6 mil poly and tape securely in place with duct tape/spray adhesive. Critical barriers must remain in place until all work and clearances have been completed.

### **3.3.4 EXTENSION OF THE REGULATED AREA**

If the regulated area barrier is breached in any manner that could allow the passage of asbestos fibers or debris, the Competent Person shall immediately stop work, continue wetting and proceed to extend the regulated area to enclose the affected area as per procedures described in this specification. If the affected area cannot be enclosed, decontamination measures and cleanup shall start immediately. All personnel shall be isolated from the affected area until decontamination/cleanup is completed as verified by visual inspection and air monitoring. Air monitoring at completion must indicate background levels.

### **3.3.5 ESTABLISH CONTAINMENT**

- A. Before work begins in an area, a decontamination unit must be in operation as outlined in this section.
- B. Completely isolate the work area from other parts of the building to prevent contamination beyond the isolated area.
- C. Temporary facilities shall be addressed as outlined in Section 3.2.4.

- D. The contractor shall set up a work area, and decontamination area, to be approved by the designer prior to the start of any work activities. The designer must approve any variations. The decontamination facility outside of the work area shall consist of a change room, an air lock, a shower room, an air lock and an equipment room.
- E. The contractor shall wet clean and/or HEPA vacuum all items and equipment in the work area suspected of being contaminated with asbestos, but not in direct contact with the asbestos material and either secure these items in place with polyethylene sheeting or have them removed from the work area.
- F. Critical Barriers: The contractor shall thoroughly seal the windows from the interior of the building for the duration of the work with polyethylene sheeting taped securely in place. If the contractor is using sealant materials to fill in small holes or cracks, the material shall have appropriate fire ratings.
- G. Floors (required): Apply two layers of 6-mil (minimum) polyethylene plastic sheeting with joints overlapped 24 inches and taped securely. Plastic shall be carried up sidewall a minimum of 12 inches and secured.
- H. Walls (required): Apply a minimum of two layers of 6 mil (minimum) polyethylene plastic sheeting with joints lapped 24 inches and taped securely
- I. Floors and walls shall be installed in such a manner that they may be removed independently of the interior critical barriers.
- J. No water or other debris may be left standing on the floor inside the containment at the end of the workday.
- K. Floor surfaces, walls, finishes or coverings, etc., that in the designer's opinion will likely be damaged by water or that may become contaminated with asbestos, shall have additional protective preparation as the owner's representative sees appropriate, at the contractors' expense, to protect the original condition of the surfaces.
- L. Any costs associated with physical damage caused by water or securing polyethylene sheeting to areas inside or outside the abatement area shall be the contractor's responsibility.
- M. After work area preparation, the contractor shall notify the designer verbally with written follow-up that he is ready for a prework inspection. Negative pressure is established at a minimum of -0.02 WC.
- N. Upon completion of the prework visual inspection (1) the contractor can begin wetting and remove the ceiling tile system and the **sheetrock wall materials (basement ONLY)** as asbestos contaminated waste. Full containment procedures are required. Continued application of polyethylene sheeting to be performed prior to



fireproofing removal include: capping walls, covering OPTIONAL MATERIALS to include but not limited to HVAC, electrical and plumbing runs not within the abatement scope of work and **cutting access panels into the steel jail holding area ceilings** and **installing poly critical above steel holding cells for abatement of structural fireproofing (basement only)**. Once the contractor deems complete containment is in place, a second poly visual (2) will be performed by the Owner's IH.

- O. Upon approval of the poly visual for abatement the contractor may begin wetting the structural fireproofing around columns above casing for removal. Removal shall be performed so as to prevent fireproofing from falling within column casing. Once a small area surrounding the column has been removed install poly, capping the column casing on all sides preventing further fireproofing from entering column casing during abatement. **All wetting agents and encapsulants must be applied with an airless sprayer- NO EXCEPTIONS.** A third poly visual (3) will be performed prior to complete fireproofing abatement activities commencing.
- P. Abatement of the fireproofing may commence.
- Q. Once the contractor deems the fireproofing abatement is complete, the contractor will call for a visual inspection of the structural steel and decking.
- R. **When the ceiling passes visual inspection the contractor may coat the structural steel, decking substrate, and poly with an encapsulant compatible with the respray fireproofing required to maintain fire codes and ratings.**
- S. After the floor poly dries from the encapsulating process, the floor poly may be removed in preparation for the floor tile and mastic removal (wall poly will remain in place and be sealed to the baseboard to protect remaining walls from splash of mastic remover.
- T. Friable floor tile and mastic removal may begin.

### 3.3.6 DECONTAMINATION UNITS

- A. Provide separate personnel decontamination facilities. Require that the personnel decontamination unit be the only means of ingress and egress for the work area. Contractor shall comply with 29 CFR 1926.1101, specifically paragraph (j) Hygiene facilities and practices for employees.
- B. Personnel Decontamination Unit
  - 1. Provide an attached Personnel Decontamination Unit (PDU) consisting of a serial arrangement of connected rooms or spaces, changing room, shower room, and equipment room. Each shall be separated by a

minimum of three curtain doorways and an air lock. Require all persons without exception to pass through this decontamination unit for entry into and exiting from the work area for any purpose. Do not allow parallel routes for entry or exit. Do not remove equipment or materials through Personnel Decontamination Unit. Unit shall be lockable and constructed so as entry to the containment is prevented during off hours.

2. Provide temporary lighting within decontamination units as necessary to reach an adequate lighting level.
3. Maintain floor of changing room dry and clean at all times. Do not allow the overflow water from the shower to escape the shower room.
4. Damp wipe all surfaces twice after each shift change with a disinfectant solution.
5. Provide hot and cold water, drainage and standard fixtures including an elevated showerhead as necessary for a complete and operable shower. A water hose and bucket is not an acceptable shower.
6. Arrange water shut off and drain pump operation controls so that a single individual can shower without assistance from either inside or outside of the work area.
7. Pump filtered shower/containment/mop/rinse wastewater to an approved sanitary sewer system. Provide 20 micron and 5-micron wastewater filters in line to sanitary sewer deposit. Change filters daily or more often if necessary.
8. Visual Barrier: Where the decontamination area is immediately adjacent to and within view of occupied areas, provide a visual barrier of opaque plastic sheeting so that worker privacy is maintained and work procedures are not visible to building occupants. Where the area adjacent to the decontamination area is accessible to the public, construct a solid barrier on the public side of the sheeting to protect the sheeting. Construct barrier with wood or metal studs, max. 16 inches on center, covered with minimum 3/8 inch plywood.

C. Decontamination Unit Contamination:

1. If the air quality in the decontamination unit exceeds 0.01 fibers per cc analyzed by PCM or 70 structures per mm squared analyzed by TEM or its integrity is diminished through use as determined by the designer or industrial hygiene firm, no employee shall use the unit until

corrective steps are taken and approved by the designer or industrial hygiene firm.

D. Equipment Decontamination Unit (EDU)/ Loadout

1. Provide an attached Equipment Decontamination Unit (EDU) consisting of a serial arrangement of connected rooms or spaces, equipment transfer room, air lock. Each shall be separated by a minimum of three curtain doorways and an air lock. Require all materials and equipment without exception to pass through this decontamination unit for entry into and exiting from the work area for any purpose. Do not allow parallel routes for entry or exit. Do not allow personnel transfer through Equipment Decontamination Unit. Unit shall be lockable and constructed so as entry to the containment is prevented during off hours.

### 3.3.7 NEGATIVE PRESSURE SYSTEM

#### GENERAL

- A. High efficiency particulate air (HEPA) filter exhaust systems equipped with new HEPA filters for each project shall be used. Exhaust equipment and systems shall comply with ANSI Z9.2-79 and used according to manufacturer's recommendations.
- B. A system of HEPA-equipped air filtration devices shall be configured so that a pressure differential is established between the work area and the surrounding area (-0.02 to -0.04" water column). A continuous chart-recorded manometer shall be used and provided by the contractor to confirm this condition, as required under SCDHEC Asbestos Regulation 61-86.1.
- C. Additional air filtration devices shall be provided inside the work area for emergency standby as well as for circulation of dead air spaces.
- D. The pressure differential is maintained at all times after preparation is complete and until the final visual inspection and air tests confirm the area is clean and acceptable for occupancy and the designer confirms verbally with written follow-up to discontinue the use of the negative pressure system.
- E. Air shall be exhausted outside the building. **NO variations are allowed.**
- F. The contractor shall check daily for leaks and log his checks in the bound logbook. This includes Manometer checks and recordings, as well as internal gauges located on each NAM device.
- G. There shall be a minimum of four air changes per hour in any containment.

### 3.4 FRIABLE ASBESTOS ABATEMENT PROCEDURES

#### 3.41 GENERAL

All applicable EPA, OSHA and SC/DHEC requirements shall be met during ALL REMOVAL AND ABATEMENT OPERATIONS. Acoustical Ceiling Systems, Spray applied structural fireproofing, sheetrock wall material systems, floor tile, and mastic found within the containment areas shall be removed in a friable manner. Optional asbestos containing materials and their substrates **(first floor only)** shall be protected from the removal/abatement process by the installation of at a minimum of two layers of 6 mil polyethylene sheeting.

**3.4.2 BASEMENT: REMOVAL OF CEILING TILE SYSTEMS, SHEETROCK WALL SYSTEMS (BASEMENT ONLY) SPRAY APPLIED STRUCTURAL FIREPROOFING, DUCTWORK COATED WITH ACM MASTICS, THERMAL SYSTEM INSULATION WITHIN CONTAINMENT COATED WITH ACM MASTICS, HVAC FOIL BACKED INSULATION COATED WITH ACM MASTIC, AND FLOOR TILE, MASTIC.**

- A. Establish regulated area as per specifications.
- B. Remove objects from regulated area for placement outside of contained area.
- C. Lock out HVAC and Electrical systems as per specifications 3.1.2 (C)
- D. Assemble critical barriers sealing off windows, doors, HVAC supply and returns as per Spec. 3.1.2 (C).
- E. Construct containment to include personnel decontamination unit and separate equipment decontamination unit/load-out as described in Section 3.3.5 & 3.3.6.
- F. Establish negative pressure as described in Section 3.3.7.
- G. Contact Owner's IH and Project Designer. Request Pre-work visual inspection (Appendix A).
- H. Upon approval, wet ceiling tile materials and sheetrock wall materials to be removed, begin abatement of ceiling tile and sheetrock wall materials.
- I. Once ceiling material and sheetrock wall materials have been removed the contractor shall begin installation of wall caps and opening the steel holding cell ceilings to provide access and for poly installation. Upon completion of wall and ceiling poly the contractor's competent person shall complete their visual inspection and call for the Owner's IH to verify poly inspection prior to fireproofing abatement.
- J. After poly visual inspection, contractor shall begin structural fireproofing Abatement as described in **Section 3.3.5 (O) capping columns.**
- K. Once contractor's competent person (Supervisor) determines that all structural fireproofing has been removed he will perform a visual inspection and document completion.
- L. The Contractor's supervisor will call the Owner's IH for a post abatement inspection for the fireproofing.

- M. Once the fireproofing and ceiling areas to include HVAC and Duct visuals the contractor will apply a **compatible encapsulant** (See 3.3.5 (R)) to the structural steel and decking substrate.
- N. Removal of floor poly shall take place after complete drying of the encapsulant sprayed poly. Wall poly shall remain in place attached to baseboard for wall protection during floor tile and mastic removal.
- O. Contractor may proceed with floor tile and mastic removal.
- P. Once the floor tile and mastic has been removed and contractor's competent person has completed their visual inspection. Contractor will call for the Owner's IH to visually inspect the floor area for complete removal. Once approved.
- Q. Contractor shall apply an encapsulant to the floor area.
- R. Poly walls and floors shall be removed. Critical Barriers shall remain in place and Contractor shall secure all areas.
- S. Final visual inspection is performed by the contractor's competent person and the Owner's IH.
- T. TEM Clearance Sampling is performed.

**3.4.3 FIRST FLOOR: REMOVAL OF CEILING TILE SYSTEMS, SPRAY APPLIED STRUCTURAL FIREPROOFING, FLOOR TILE AND MASTIC; COVER AND PROTECT: DUCTWORK COATED WITH ACM MASTICS, THERMAL SYSTEM INSULATION WITHIN CONTAINMENT COATED WITH ACM MASTICS, AND HVAC FOIL BACKED INSULATION COATED WITH ACM MASTICS.**

- A. Establish regulated area as per specifications.
- B. Remove objects from regulated area for placement outside of contained area.
- C. Lock out HVAC and Electrical systems as per specifications 3.1.2 (C)
- D. Assemble critical barriers sealing off windows, doors, HVAC supply and returns as per Spec. 3.1.2 (C).
- E. Construct containment to include personnel decontamination unit and separate equipment decontamination unit/load-out as described in Section 3.3.5 & 3.3.6.
- F. Establish negative pressure as described in Section 3.3.7.
- G. Contact Owner's IH and Project Designer. Request Pre-work visual inspection (Appendix A).
- H. Upon approval, wet ceiling tile materials to be removed, begin abatement of ceiling tiles.
- I. Once ceiling tiles have been removed the contractor shall begin installation of wall cap poly as well as covering and protecting with two layers of 6 mil poly all HVAC duct work coated with ACM mastics, Thermal System Insulation coated with ACM mastics, and HVAC foil backed insulation coated with ACM mastic which are to remain. Once poly is installed as described herein the contractor's competent person shall complete their visual inspection and call for the Owner's IH to verify poly inspection prior to fireproofing abatement.
- J. After poly visual inspection by Owner's IH has passed, the contractor shall begin structural fireproofing abatement as described in **Section 3.3.5 (O) capping columns.**
- K. Once contractor's competent person (Supervisor) determines that all structural

fireproofing has been removed he will perform a visual inspection and document completion.

- L. The Contractor's supervisor will call the Owner's IH for a post abatement inspection for the fireproofing.
- M. Once the fireproofing and ceiling areas have passed visual clearance the contractor will apply a **compatible encapsulant** (See 3.3.5 (R)) to the structural steel and decking substrate.
- N. Removal of floor poly from the single area of floor tile and mastic to be removed shall take place after complete drying of the encapsulant sprayed poly. Wall poly shall remain in place attached to baseboard for wall protection during floor tile and mastic removal.
- O. Contractor may proceed with floor tile and mastic removal.
- P. Once the floor tile and mastic has been removed and the contractor's competent person has completed their visual inspection. Contractor will call for the Owner's IH to visually inspect the floor area for complete removal. Once approved.
- Q. Contractor shall apply an encapsulant to the floor area.
- R. Poly walls shall be removed. Top layer of 6 mil poly covering duct and TSI shall be removed leaving critical to remain in place. Poly floors in all other areas shall be removed and contractor shall secure all areas.
- S. Final visual inspection is performed by the contractor's competent person and the Owner's IH.
- T. TEM Clearance Sampling is performed.

**\*\*\*ALL WET METHODS AND WETTING AGENTS SHALL BE APPLIED VIA AN AIRLESS SPRAYER**

### **3.7 DISPOSAL OF ACM WASTE**

#### **3.7.1 GENERAL**

Dispose of waste ACM, debris, and polyethylene materials used in the performance of this project in accordance with these specifications and appropriate regulations to include: OSHA, EPA, DOT and SCDHEC. The landfill requirements for packaging must also be met. Disposal shall be done at a SCDHEC approved landfill. Disposal of friable ACM shall be done in accordance with all applicable regulations.

#### **3.7.2 PROCEDURES**

- A. Asbestos waste shall be packaged and moved through the Equipment Decontamination Unit (EDU) into a covered transport container in accordance with NESHAP's packaging requirements. Waste shall be double-bagged prior to disposal. Bags shall not be overfilled. Bags shall be securely sealed to prevent accidental opening and/or leakage. The top shall be tightly twisted and goose necked prior to tightly sealing with at least three wraps of duct tape. Ensure that

unauthorized persons do not have access to the waste material once it is outside the regulated area. All transport containers must be enclosed and locked at all times when not in use. NESHAP's signs must be on containers during loading and unloading. Material **shall not** be transported in open vehicles. If drums are used for packaging, the drums shall be labeled properly and shall not be re-used.

- B. Carefully place asbestos containing materials in a 6 mil poly bag. Tape the bag with duct tape when manageable amount is placed in bag. Place the bag in a second asbestos waste disposal bag and tape closed with duct tape. Move sealed bags to a covered waste hauling vehicle immediately. All waste shipments shall be manifested by EPA requirements.
- C. While stored on site, ACM waste shall be within a poly lined and locked closed top dumpster. NO EXCEPTIONS

### **3.8 PROJECT DECONTAMINATION**

#### **3.8.1 GENERAL**

The entire work related to project decontamination shall be performed under the close supervision and monitoring of the Owner's IH.

#### **3.8.2 REGULATED AREA CLEARANCE**

Air testing and other requirements, which must be met before release of the Abatement Contractor and re-occupancy of the regulated area space, are specified in Final testing Procedures.

#### **3.8.3 WORK DESCRIPTION**

Decontamination includes the cleaning and clearance of the air in the regulated area.

#### **3.8.4 PRE-CONTAMINATION CONDITIONS**

- A. Before decontamination starts all ACM shall be removed from the regulated area. All waste collected, removed and generated from the removal process shall be disposed of along with any gross debris generated by the work.
- B. At the start of decontamination the following shall be in place:
  - 1. Critical barriers consisting of two layers of 6 mil poly which is the sole barrier between the regulated area and the rest of the building or outside.
  - 2. Critical barrier poly over lighting fixtures, clocks, HVAC openings, doorways, windows, convectors, speakers and other openings in the regulated area.

## 3.9 VISUAL INSPECTION AND CLEARANCE TESTING

### 3.9.1 GENERAL

The final visual inspection and testing will be performed by the Owner's IH starting no sooner than 24 hours after finishing the final cleaning.

### 3.9.2 VISUAL INSPECTION

Final visual inspection will include the entire regulated area, all poly sheeting, seals over HVAC openings, doorways, windows and any other openings. If any debris, residue, dust or any other suspect material is detected, the cleaning shall be repeated at no cost to the Owner. Dust/material samples may be collected and analyzed at no cost to the Owner at the discretion of the Owner's IH to confirm visual findings. When the regulated area is visually clean Contractor shall apply a compatible encapsulant to cover the substrate from which the asbestos containing materials were removed. Upon complete drying of the encapsulant, as determined by the Owner's IH and Air Sampling Professional, Air Clearance Testing will take place.

### 3.9.3 AIR CLEARANCE TESTING

- A. After an acceptable final visual inspection by the Owner's IH air samples will be collected and analyzed in accordance with SCDHEC and AHERA regulations for TEM air clearance. If the release criteria are not met, the Abatement Contractor shall repeat the final cleaning and continue decontamination procedures. **Additional inspection and testing will be done at the expense of the Abatement Contractor.**
- B. If release criteria are not met the Owner will resample by TEM at the Contractor's expense. For final clearance, leave in place only the critical barriers separating the regulated area from the rest of the building. If the results of the TEM are acceptable, remove the critical barriers. Any small quantities of residue material found upon removal of the poly shall be removed with a HEPA vacuum and localized isolation. If significant quantities are found as determined by the Owner's IH, then the entire area affected shall be cleaned as specified in the final cleaning.
- C. If release criteria are met, proceed to perform the abatement closeout and to issue the certificate of completion in accordance with these specifications.

### 3.9.4 AIR CLEARANCE PROCEDURES

- A. Contractor's Release Criteria: Work in a regulated area is complete when the regulated area is visually clean and airborne fiber levels comply with SCDHEC and AHERA standards for using TEM methods.



B. Air Monitoring and Final Clearance Sampling: To determine if the elevated airborne fiber counts encountered during abatement operations have been reduced to the specified level the Owner's IH will secure samples and analyze them according to the following procedures:

1. Fibers Counted: "Fibers" referred to in this section shall be asbestos fibers counted using the TEM method.
2. Aggressive Sampling: All final air testing samples shall be collected using aggressive sampling techniques as per AHERA.

### **3.9.5 CLEARANCE SAMPLING USING TEM**

After the work is found to be visually clean and the work area completely dry, clearance air sampling and analysis shall be performed in accordance with State and AHERA guidelines for TEM air samples. The Owner will provide sampling by TEM to meet SCDHEC final clearance air sampling procedures. Up to 13 samples may be taken and analyzed including five samples in the regulated area, five samples outside the regulated area and three field blanks using 0.45 micron MCE filters. A complete record of all air clearance results shall be furnished to the Owner's representative and the Abatement Contractor. The abatement work is complete when the work area has passed the final visual inspection and each work area sample is below 70 s/mm<sup>2</sup>. If any sample is above 70 s/mm<sup>2</sup>, the decontamination is incomplete and recleaning shall be performed by the Contractor at no cost to the Owner. Repeat clearance sampling to include Air Sampling professional's time and materials, will be allotted as an expense to the Contractor.

## **3.10 ABATEMENT CLOSEOUT AND CERTIFICATE OF COMPLIANCE**

### **3.10.1 COMPLETION OF ABATEMENT WORK**

After completion of asbestos abatement, thorough decontamination of abatement area, visual inspection approved and meeting the regulated area clearance criteria, the following criteria must be met to fulfill completion of the project:

- A. Remove all equipment, materials and debris from project area.
- B. Package and dispose of all asbestos waste as required, including containment and decontamination unit poly.
- C. Complete Contractor/Owner's IH walk through of site for post abatement check list.
- D. Contractor shall correct any punch list items attributable to the abatement process.
- E. Contractor is released.

### 3.11 WORK SHIFTS

All work shall be done during administrative hours (7:00am – 5:30 pm) Monday – Friday excluding Federal Holidays, within a Forty-hour (40) work week. Any request for change in the work schedule must be submitted to the Owner's representative for approval in writing, 48 hours in advance to the proposed schedule change. No work schedule changes or additional work hours may occur without written consent from the Owner's IH.

### 3.12 INSURANCE

The Subcontractor shall provide the Owner with evidence of the follow minimum insurance requirements:

- a) A policy of Workers' Compensation Insurance for the protection of its employees, including executive, managerial, and supervisory employees, engaged in all Operations hereunder.
- b) A policy of commercial general liability coverage with combined limits of not less than \$5,000,000, insuring against claims for personal injury or property damage. The Contractor shall cause the Owner and Consultant to be designated as an additional insured.
- c) A policy of pollution liability insurance with limits of not less than \$5,000,000 insuring against claims for personal injury or property damage by the contractor or by employees of the Contractor. The Contractor shall cause the Owner and Consultant to be designated as an additional insured.
- d) A policy of automobile liability insurance with bodily injury coverage of at least \$1,000,000 for each individual and \$1,000,000 for each accident and property damage coverage of at least \$100,000. The Contractor shall cause the Owner and Consultant to be designated as an additional insured.
- e) During the continuance of this Agreement and if requested by the Consultant, the Contractor shall deposit with the Owner current certificates evidencing the policies and endorsements set forth above and shall provide the Consultant with at least thirty (30) days' written notice prior to the modification or cancellation of any insurance policy required under this Section.
- f) Subcontractor shall provide Pollution Liability Insurance covering all asbestos, mold, lead and any other pollution operations with limits not less than \$5,000,000.00 each occurrence combined single limit for bodily injury, property damage and clean-up costs including completed operations (5 year continuation beyond acceptance), broad form contractual (including

coverage for third party over claims), and independent contractors coverage. If the policy contains a general aggregate, this aggregate must apply on a per project basis, all of which must be evidenced on the certificate. The pollution policy shall be project specific and shall not be subject to reduction in the limits of coverage as to the Owner by reason of any claim asserted against the Contractor other than in connection with the Work.

- Defense costs must be payable in addition to limit of liability
- Any deductibles, clauses, exclusions or special endorsements must be approved by Owner prior to inclusion.
- Coverage must include on-site, off-site and in-transit exposures.
- Policy to read "to pay on behalf of" (in lieu of indemnify).
- Must include loading and unloading coverages.
- Must be written on occurrence form.
- Policy to be submitted to the Owner for review and approval.

### **3.13 TIME TABLE**

<b>5/13/2014</b>	<b>Mandatory Pre-Bid Meeting 10:00 AM</b>
<b>5/27/2014</b>	<b>Bids due to Florence County Complex Representative:</b>
<b>6/3/2014</b>	<b>Award contract</b>
<b>6/6/2014</b>	<b>Contractor to Notify SC/DHEC</b>
<b>6/23/2014</b>	<b>Begin Abatement of Florence County Complex</b>
<b>8/?/2014</b>	<b>Based on Contractor submission of Schedule, Complete Abatement of Florence County Complex</b>

# FORM OF PROPOSAL

The undersigned, as bidder, hereby declares that the only person or persons interested in this proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this proposal or in the contract to be entered into; that this proposal is made without connection with any other person, company or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud. The bidder further declares that he has examined the site of the work and the contract documents relative thereto, and has read all special provisions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be performed.

The Bidder proposes and agrees if this proposal is accepted to contract with FLORENCE COUNTY COMPLEX in the form of contract specified below, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the Hazardous Materials Abatement of:

Asbestos Containing Materials from the Florence County Complex in full and complete accordance with the plans, specifications and contract documents, to the full and entire satisfaction of the State of South Carolina, and FLORENCE COUNTY COMPLEX with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and the contract documents, for the sum of:

## SINGLE PRIME CONTRACT:

Base Bid:

As described in the Specification herein and to include Section 1.1.2 Extent of Work as well as noted in Pre-bid meeting.

Dollars (\$)

## UNIT PRICES

Unit prices quoted and accepted shall apply throughout the life of the contract, except as otherwise specifically noted. Unit prices shall be applied, as appropriate, to compute the total value of changes in the scope of the work all in accordance with the contract documents.

## FORM OF PROPOSAL

### GENERAL CONTRACT:

No. 1	<u>Floor Tile &amp; Mastic (Removal)</u>	<u>Square Foot</u>	<u>Unit Price (\$)</u>
No. 2	<u>TSI (Pipe Insulation Removal)</u>	<u>Linear Foot</u>	<u>Unit Price (\$)</u>
No. 3	<u>Fiberglass Duct Insulation</u> (foil backed with ACM mastic)	<u>Linear Foot</u>	<u>Unit Price (\$)</u>

The bidder further proposes and agrees hereby to commence work under this contract on a date specified in a written order by the bidder and agreed upon by the property owner and industrial hygiene firm. The bidder agrees to fully complete all work thereunder within the time specified by the bidder and agreed upon by the property owner and industrial hygiene firm. Applicable liquidated damages amount is also stated in the General Conditions and contract documents.

No proposal for construction or repair work may be considered or accepted by said board or owner unless at the time of its filing the same shall be accompanied by a deposit with said board or owner of cash, or a cashier's check, or a certified check on some bank or trust company insured by the Federal Deposit Insurance Corporation in an amount equal to not less than five percent (5%) of the proposal. In lieu of making the cash deposit as above provided, such bidder may file a bid bond executed by a corporate surety licensed under the laws of South Carolina to execute such bonds, conditioned that the surety will upon demand forthwith make payment to the obligee upon said bond if the bidder fails to execute the contract in accordance with the bid bond. This deposit shall be retained if the successful bidder fails to execute the contract within 10 days after the award or fails to give satisfactory surety as required herein.

## **Proposal Signature Page**

Florence County Complex  
Florence, South Carolina

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April, 2014  
The EI Group- Project Number: IHGR140033.00

The undersigned further agrees that in the case of failure on his part to execute the said contract within ten (10) consecutive calendar days after written notice being given of the award of contract, the certified check, cash or bid bond (if applicable) accompanying this bid shall be paid into the funds of the owner's account set aside for the project, as liquidated damages for such failure; otherwise the certified check, cash or bid bond accompanying this proposal shall be returned to the undersigned.

Respectfully submitted this \_\_\_\_\_ day of \_\_\_\_\_ 2014.

\_\_\_\_\_  
(Name of firm or corporation making bid)

WITNESS:

\_\_\_\_\_  
(Proprietorship or Partnership)

By:

Title \_\_\_\_\_

(Owner/Partner/Pres./V.Pres)

Address \_\_\_\_\_

License No. \_\_\_\_\_

Federal I.D. No. \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_

Title: \_\_\_\_\_

(Corp. Sec. or Asst. Sec. only)

(CORPORATE SEAL)

Addendum received and used in computing bid:

Addendum No. 1 \_\_\_\_\_ Addendum No. 2 \_\_\_\_\_ Addendum No. 3 \_\_\_\_\_

Addendum No.4 \_\_\_\_\_

**FORM OF BID BOND**

KNOW ALL MEN BY THESE PRESENTS THAT \_\_\_\_\_

\_\_\_\_\_ as principal, and \_\_\_\_\_, as surety, who is duly licensed to act as surety in South Carolina, are held and firmly bound unto the State of South Carolina\* through \_\_\_\_\_ as obligee, in the penal sum of \_\_\_\_\_ DOLLARS, lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Signed, sealed and dated this \_\_\_\_ day of \_\_\_\_ 20\_\_

WHEREAS, the said principal is herewith submitting proposal for and the principal desires to file this bid bond in lieu of making the cash deposit.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION is such, that if the principal shall be awarded the contract for which the bid is submitted and shall execute the contract and give bond for the faithful performance thereof within ten days after the award of same to the principal, then this obligation shall be null and void; but if the principal fails to so execute such contract and give performance bond as required, the surety shall, upon demand, forthwith pay to the obligee the amount set forth in the first paragraph hereof.

\_\_\_\_\_(SEAL)

\_\_\_\_\_(SEAL)

\_\_\_\_\_(SEAL)

\_\_\_\_\_(SEAL)

\_\_\_\_\_(SEAL)

**FORM OF PERFORMANCE BOND**

Date of Contract: \_\_\_\_\_

Date of Execution: \_\_\_\_\_

Name of Principal  
(Contractor) \_\_\_\_\_

Name of Surety: \_\_\_\_\_

Name of Contracting  
Body: Florence County Complex  
180 North Irby Street  
Florence, South Carolina 29501

Amount of Bond: \_\_\_\_\_  
FLORENCE COUNTY COMPLEX

Project

KNOW ALL MEN BY THESE PRESENTS, that we, the principal and surety above named, are held and firmly bound unto the above named contracting body, hereinafter called the contracting body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind, ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the contracting body, identified as shown above and hereto attached:

NOW, THEREFORE, if the principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the contracting body, with or without notice to the surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Executed in \_\_\_\_\_ counterparts.



FORM OF PERFORMANCE BOND  
SIGNATURE PAGE

Witness: \_\_\_\_\_  
Contractor: (Trade or Corporate Name)

By: \_\_\_\_\_  
(Proprietorship or Partnership)

Attest: (Corporation) Title: \_\_\_\_\_  
(Owner, Partner, or Corp.  
Pres. or Vice Pres. only)

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Corp. Sec. or Asst. Sec.. only)

(Corporate Seal)

\_\_\_\_\_  
(Surety Company)

Witness: By: \_\_\_\_\_

\_\_\_\_\_ Title: \_\_\_\_\_  
(Attorney in Fact)

Countersigned:

\_\_\_\_\_ (Surety Corporate Seal)

\_\_\_\_\_  
(S.C. Licensed Resident Agent)

\_\_\_\_\_  
Name and Address-Surety Agency

\_\_\_\_\_  
Surety Company Name and S.C.  
Regional or Branch Office Address

**FORM OF PAYMENT BOND**

Date of Contract: \_\_\_\_\_  
Date of Execution: \_\_\_\_\_  
Name of Principal  
(Contractor) \_\_\_\_\_  
Name of Surety: \_\_\_\_\_  
Name of Contracting  
Body: Florence County Complex  
180 North Irby Street  
Florence, South Carolina 29501  
Amount of Bond: \_\_\_\_\_  
Project Florence County Complex

KNOW ALL MEN BY THESE PRESENTS, that we, the principal and surety above named, are held and firmly bound unto the above named contracting body, hereinafter called the contracting body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the contracting body identified as shown above and hereto attached:

NOW, THEREFORE, if the principal shall promptly make payment to all persons supplying labor/material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Executed in \_\_\_\_\_ counterparts.

FORM OF PAYMENT BOND  
SIGNATURE PAGE

Witness: \_\_\_\_\_  
Contractor: (Trade or Corporate Name)

By: \_\_\_\_\_  
(Proprietorship or Partnership)

Attest: (Corporation) Title: \_\_\_\_\_  
(Owner, Partner, or Corp.  
Pres. or Vice Pres. only)

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Corp. Sec. or Asst. Sec.. only)

(Corporate Seal)

\_\_\_\_\_  
(Surety Company)

Witness: By: \_\_\_\_\_

\_\_\_\_\_ Title: \_\_\_\_\_  
(Attorney in Fact)

Countersigned:

\_\_\_\_\_ (Surety Corporate Seal)

\_\_\_\_\_  
(S.C. Licensed Resident Agent)

\_\_\_\_\_  
Name and Address-Surety Agency

\_\_\_\_\_  
Surety Company Name and S.C.  
Regional or Branch Office Address

## Sheet for Attaching Insurance Certificates

## CERTIFICATE OF POST ABATEMENT VISUAL INSPECTION

<b>CLIENT:</b>	<b>DATE:</b>
<b>CONTRACTOR'S CERTIFICATION</b>	
In accordance with the appropriate specification requirement, the contractor hereby certifies by the signature below, that he has visually inspected the work area (all surfaces including pipes, beams, ledges, walls, ceilings, floors, decontamination unit, poly sheeting, etc.) and has found no dust, debris or residue.	
<b>Signature</b>	<b>Printed Name:</b>
<b>Printed Title:</b>	<b>Company Name:</b>
<b>CLIENT REPRESENTATIVE/CONSULTANT CERTIFICATION</b>	
The client's representative/consultant hereby certifies by the signature below that he has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough and to the best of his knowledge and belief the contractor's certification above is true and honest.	
<b>Signature</b>	<b>Printed Name:</b>
<b>Printed Title:</b>	<b>Company Name:</b>
<b>CLIENT REPRESENTATIVE/CONSULTANT WORK AREA CLEARANCE</b>	
<b>Signature:</b>	<b>Printed Name:</b>
<b>Printed Title:</b>	<b>Date:</b>
<b>Company Name</b>	

**APPENDIX A**

**PREWORK ASBESTOS INSPECTION CHECKLIST**

Name of Facility: Florence County Complex

Project Name: Florence County Complex-Basement/First Floor

Project ID Number: IHGR140033.01

Date of Inspection: \_\_\_\_\_

Pass: \_\_\_\_\_

Fail: \_\_\_\_\_

**A. DOCUMENTS**

**YES NO**

- 1) Asbestos Removal Permit/NESHAP Notification \_\_\_\_\_
- 2) Accreditation Documents for Workers & Supervisors \_\_\_\_\_
- 3) Asbestos Plans and Specifications \_\_\_\_\_
- 4) Air Monitoring Data \_\_\_\_\_
- 5) Waste Shipment Records \_\_\_\_\_
- 6) Sign-in Sheets and Bound Book for Comments \_\_\_\_\_
- 7) Calibration Record for Grade "D" Air \_\_\_\_\_
- 8) Items listed in Section 01043 of Specification \_\_\_\_\_

**B. PPE SUPPLIES**

- 1) Tyvek Clothing \_\_\_\_\_
- 2) Rubber Boots \_\_\_\_\_
- 3) Respirators with HEPA Filters \_\_\_\_\_

**C. CLEAN ROOM**

- 1) Entry Curtains \_\_\_\_\_
- 2) Emergency Phone Numbers Posted \_\_\_\_\_
- 3) First Aid Kit \_\_\_\_\_
- 4) Asbestos Signs \_\_\_\_\_
- 5) Decontamination Procedures Posted \_\_\_\_\_
- 6) Fire Extinguisher \_\_\_\_\_

**D. SHOWER ROOM**

- 1) Polyethylene Curtains \_\_\_\_\_
- 2) Hot/Cold Water & Operational \_\_\_\_\_
- 3) Soap & Towels \_\_\_\_\_
- 4) Waste Water Filter Pump Operational \_\_\_\_\_
- 5) Extra Five Micron Size Filters \_\_\_\_\_
- 6) Filtered Waste Water to Sanitary Sewer \_\_\_\_\_

<b>E. WORK AREA</b>	<b>YES</b>	<b>NO</b>
7) Removable Items Out of Area	_____	_____
8) Non-removable Items Protected	_____	_____
9) Critical Barriers Installed	_____	_____
10) Polyethylene Curtains	_____	_____
11) Polyethylene on Walls/Floors as Specified	_____	_____
12) HVAC off	_____	_____
13) Air Filtration Devices in Place and Operational	_____	_____
14) Air Exhausted to Outside	_____	_____
15) Electricity Locked and Tagged Out	_____	_____
16) Temporary Power Installed with GFCI	_____	_____
17) Fire Extinguishers	_____	_____
18) Emergency and Fire Exits Marked	_____	_____
19) Audible Alarms Operational	_____	_____
20) Toilet Available	_____	_____

<b>F. EQUIPMENT</b>		
21) Safety Equipment	_____	_____
22) HEPA Vacuums	_____	_____
23) Waste Disposal Bags	_____	_____
24) Airless Sprayer with Water Source	_____	_____
25) Cleaning Equipment	_____	_____
26) Glove Bags	_____	_____
27) Emergency Power Generator (if required)	_____	_____
28) Temporary Lighting	_____	_____

<b>E. OTHER</b>		
1) _____	_____	_____
2) _____	_____	_____
3) _____	_____	_____
4) _____	_____	_____

\_\_\_\_\_  
*Asbestos Design Consultant*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Asbestos Contractor's Representative*

\_\_\_\_\_  
*Date*