# TECHNICAL ASBESTOS ABATEMENT SPECIFICATIONS

**FOR** 

384 Miles Avenue in Yuba City, Ca.

PREPARED BY

ASBESTOS SCIENCE TECHNOLOGIES P.O. BOX 505 BANGOR, CA. 95914 530-518-0934

Technical

PROJECT: Asbestos Removal

## TECHNICAL SPECIFICATIONS

# INSTRUCTIONS TO ABATEMENT CONTRACTOR

# 1. DEFINITIONS

A. OWNER – Housing Authority in which legal title to the real property involved is vested, hereinafter referred to as "Owner".

## B. AUTHORIZED REPRESENTATIVE OF THE OWNER – Martin Warren

- C. CONSULTANT A Certified Asbestos Consultant, Industrial Hygienist, licensed Architect or licensed Engineer being the person or organization, so designated in the Agreement, hereinafter referred to as "Consultant".
- D. CONTRACTOR The Contractor is the person or organization identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term "Contractor" means General Contractor or his authorized representative.
- E. SUBCONTRACTOR The person, firm or corporation supplying direct or indirect labor and/or materials at the site of the project or services in a disposal area and under separate contract or agreement with the Contractor.
- F. AUTHORIZED VISITORS Any visitor authorized by the Consultant, the Asbestos Abatement Contractor, and approved by the Owner, or any representative of a regulatory agency or other agency having jurisdiction over the project. Visitors may not be under the age of 18 years.
- G. THE WORK The Work includes all labor, material, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the work.
- H. WRITTEN NOTICE Written Notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or to an officer of the Corporation for whom it was intended or, if delivered at or sent through the United States Mail, to the last business address known to him who gives the notice.

# 1. EXECUTION OF CONTRACT, BID BONDS, AND PERFORMANCE BOND

The abatement contractor will be required to perform work as per these specifications. The contractor shall furnish insurance certificates and affidavit of wages to be paid, satisfactory to the Owner, within thirty (30) days after receiving execution. Wages to be paid employees of the contractor shall conform to existing prevailing wage rules for this part of the State of California as a minimum. All wages paid shall also be at least the minimum for prevailing wage rates for the county of Sutter.

# 2. PROPOSAL SUMS

Not Applicable.

# 3. TAXES

Not Applicable.

# 4. PERMITS AND INDEMNIFICATION

The Contractor shall, at his own cost and expense, provide the necessary permits. A letter to indemnify the owner, its agents and employees against any action or challenge on any patent infringement right shall accompany the executed contract. This letter shall be signed by the abatement contractor.

## 5. EXAMINATION OF SITE AND CONDITIONS

The asbestos abatement contractor shall examine the site of the work and ascertain for himself/herself all of the physical conditions in relation thereto. Failure to take this precaution will not release the abatement contractor from entering into contracts nor excuse him from performing the work in strict accordance with terms of the contract. Contractor shall employ, so far as possible, such methods and means of carrying out his/her work as will not cause any interruption or interference with any other work being performed by Owner. No statement made by any officer, agent or employee of the Owner in relation to the physical conditions pertaining to the work site, will be binding on the Owner.

## 6. BUILDERS RISK LOSSES

The Owner will not be responsible for any losses suffered by the contractor, including the interests of the Contractor and the subcontractors, for their losses to the project described herein caused by the perils of fire, lightning, windstorm, hail, civil commotion, smoke, aircraft, vehicle, explosion, riot, vandalism, and malicious mischief.

# 7. CHANGE IN THE WORK

A. The Owner may, without invalidating this Contract, order extra work or make changes by altering, adding to, or deducting from the work, the price herein being adjusted accordingly. However, any changes from the terms of the Contract or the Specifications required by the Owner shall not be valid unless the changes ordered are in writing with the price specified and signed by the Owner.

B. Contractor shall always be mindful of the presence of asbestos (in addition to the asbestos materials to be abated under this Contract) and shall carry out his work with due diligence in light of this possibility. Contractor shall be, and remain at all times, solely responsible for the safety of its employees in the performance of the work, and shall take all precautions necessary to ensure such safety.

If the Contractor discovers asbestos, other than asbestos materials to be abated under this contract, upon such discovery Contractor shall take such action as is reasonably necessary and feasible to provide an interim safe and secure environment for employees and third parties until the determination can be made of how next to proceed.

- 1) No claims for extras shall be made by the Contractor unless the extra ordered is in writing with the price and time extension specified by the Owner and approved and signed by the purchasing agent.
- 2) Insofar as possible under applicable laws, rules, regulations, and requirements, Contractor shall keep confidential all information respecting asbestos obtained by it relative to this project, howsoever obtained, unless disclosure is otherwise required by safety considerations of any person.
- C. Change Orders Except for field changes and unforeseen emergencies, no change in the work shall be made without a written change order. The adjustment in contract price and/or time for change orders shall be negotiated. Any changes which effect time or cost adjustments to the original contract shall be pre-approved by the owner's purchasing agent before work proceeds.
- D. The Contractor, in connection with any proposal he makes for a contract modification, shall furnish a price breakdown itemized as required by the owner. Unless otherwise directed, the breakdown shall be in sufficient detail to permit an analysis of all material, labor, equipment, subcontract, and overhead costs as well as profit, and shall cover all work involved in the modification, whether such work was deleted, added, or changed.

Any amount requested as additional compensation for subcontracts shall be supported by a similar price breakdown. In addition, if the proposal includes a time extension, a justification therefore shall also be furnished.

The proposal, together with the price breakdown and time extension justification, shall be furnished within one (1) day of the date first requested by the consultant.

In such proposals, profit and overhead shall be computed as follows:

- 1) Subcontractor's profit and overhead shall not exceed 15% of total direct costs.
- 2) The Contractor's profit and overhead on work performed by his own crews shall not exceed 15% of total direct costs.

- 3) The Contractor's profit and overhead on work performed by his subcontractors shall not exceed 5% of total direct costs.
  - 4) On credit changes, profit and overhead will be treated as in 2 and 3 above.
- E. Upon accepting a Change Order by signing it, the Contractor releases the Owner from any further claim in money and for time by reason of the changed work.
- F. No claim by the Contractor for an equitable adjustment of any Change Order shall be allowed if submitted after final payment under this Contract.

## 8. STOPPING THE WORK

- A. Work shall be stopped at any time it is determined that conditions are not within the specification requirements of applicable regulations. Stopping the Work may be initiated by:
  - 1. The Contractor
  - 2. The Consultant
  - 3. Federal, State, or Local regulatory officials
  - 4. Owner representative
- B. The stoppage of Work shall continue until conditions have been corrected and corrective steps have been taken to the satisfaction of the persons having jurisdiction.
- C. Standby time required to resolve violations shall be at the Contractor's expense.

# 9. OWNER'S RIGHT TO DO WORK

If the contractor defaults or neglects to carry out the work in accordance with the contract documents or fails to perform any provision of the contract, the owner may, one day after providing written notice to the contractor and without prejudice to any other remedy he may have, make good such deficiencies.

In such case, an appropriate change order will be issued deducting from the payments then or thereafter due the contractor the cost of correcting such deficiencies including the cost of the consultant's additional services made necessary by such default, neglect, or failure. If the payments then or thereafter due the contractor are not sufficient to cover such amount, contractor shall pay the difference to the owner.

## 10. DELAYS AND EXTENSION OF TIME

All time limits stated in the contract documents are of the essence of the contract.

The contractor may be granted an extension of time and/or relief from liquidated damages because of changes ordered in the work or because of strikes, lockouts, fire, or any causes beyond the contractor's control which constitute a justifiable delay. The owner will extend the time and/or grant relief from liquidated damages subject to the following provisions:

- A. Claims for extensions of time and/or relief from liquidated damages must be made in writing not later than (1) calendar day after the beginning of the delay.
- B. Claims for extension of time or relief from liquidated damages shall be stated in numbers of whole or half calendar days. The actual dates on which the delay(s) occurred must be stated. Calendar days shall be computed by multiplying normal work days (5 days per week) by a factor of 1.4.
  - C. Any claim for extension of time shall be supported by a citation of facts.
- D. Requests for extensions of time relative to changes in the work shall be made on a change order form requesting approval of the work change.

## 11. SUPERVISION

The supervision of this work will be done by Martin Warren of Asbestos Science Technologies, Inc. Certified Asbestos Consultant, OSHA # 09-4590. P.O. Box 505, Bangor, Ca. 95914. Phone Number 530-518-0934. Supervision of compliance with E.P.A., O.S.H.A, State of California Regulations and other provisions of the contract governing the removal and disposal of asbestos will be done by Martin Warren or under his direction, acting on behalf of the owner.

#### 12. INSPECTION OF WORK

The representatives of the owner shall at all times have access to the work area(s). The contractor shall provide facilities for such access and for inspection.

## 13. CLEAN-UP

The contractor shall at all times keep the premises free from accumulation of asbestos, waste material or rubbish caused by his employees or work. At the completion of the work, contractor shall remove all trash from and about the buildings and remove all tools, surplus materials, etc., and shall leave the work area clean. In the event of dispute, the owner may remove any waste, trash, etc., and charge the cost to the contractor.

All tools shall be kept secured when not in use or they shall be removed entirely from the site. At no time shall tools be accessible to others.

## 14. INTERPRETATIONS

Should the abatement contractor find discrepancies in, or omissions from the specifications, or be in doubt as to their meanings, he or she should at once notify the supervisor of the project. The owner will not be responsible for oral interpretations.

# 15. EVIDENCE OF QUALIFICATIONS

Contractor shall have performed removal of asbestos in at least two public agencies in the past (2) years.

# 16. WITHDRAWAL OF PROPOSAL

Not applicable.

## 17. PAYMENT AND COMPLETION

Payment will be made upon presentation of invoices following the completion of the work. The owner is entitled to withhold 10% during the lien period unless the contractor exercises a substitution of security agreement and collateral to the satisfaction of the owner. Release of funds will be made with the presentation of lien release documents acceptable to the owner filed with the pay request.

# 18. TIME FOR COMPLETION

Not Applicable.

## 19. TEMPORARY UTILITIES

The owner may furnish water, electricity, and other utilities as needed for completion of the work. Restroom facilities will not be provided by the owner.

# 20. LIQUIDATED DAMAGES

Not Applicable.

# 21. AIR MONITORING

Air monitoring will be provided throughout the project by a Certified Asbestos Consultant or by a Certified Site Surveillance Technician under the direction of Martin Warren. The Contractor is not required to provide air monitoring under these specifications, except where it is required by Federal or State ASHA (or other) regulations for contractor compliance. All owner provided air monitoring is included within the contract of the consultant.

## 22. AWARD OF CONTRACT

Not Applicable.

23. Contractor will pay employees at the prevailing wages rates specified for Humboldt County and will observe overtime rates. Extending the work day beyond eight hours is permitted but must be arranged with the consultant and shall be at an additional cost per hour to the contractor based on \$950.00 per day for weekdays and \$1350.00 per day for weekends.

# 24. QUESTIONS PRIOR TO BID

Direct all inquiries regarding this project to: Asbestos Science Technologies, Inc. P.O. Box 505 Bangor, California 95914 Telephone No: 530-518-0934

# APPLICABLE DOCUMENTS AND REGULATIONS

All asbestos removal work shall comply with the requirements of:

- 1. All applicable Federal, State, local laws and regulations.
- 2. Title 8, California Code of Regulations CCR Section 1529 and 5144 Occupational Safety and Health Administration (Cal OSHA).
- 3. Title 40, Code of Federal Regulations, part 61, Subparts A and B, National Emissions Standards for Hazardous Air Pollutants, U.S. Environmental Protection Agency (EPA).
- 4. National Institute for Occupational Safety and Health (NIOSH): "Respiratory Protection.... A Guide for the Employee".

## SUBMITTALS AND NOTICES

The following notifications shall be filed by the Contractor as required by law prior to commencement of work:

1. Notice of proposed abatement work with copy to Owner and the regulatory office(s) below:

OSHA and the local air quality management district

The OSHA notice should be sent not fewer than 24 hours before work starts and the notification to the air quality management district shall be sent 10 working days prior to commencement of the project unless emergency is granted by the local air quality management district: Items in the notification at a minimum shall include:

a. Name and address of Contractor.

- b. Address and description of facilities, including size, age and prior use of the facilities, and the approximate square or linear footage of the asbestos material present.
- c. Scheduled starting and completion dates for project. Schedules for removal to be coordinated with the construction/replacement contractor and with the consultant.
  - d. Methods to be employed during project.
  - e. Procedures to be used to comply with this regulation.
- f. The name and address of the waste disposal site where the asbestos materials will be taken.

The temporary job-site notice must be sent to the nearest CAL/OSHA office having jurisdiction.

Copies of all notices must be supplied to the owner via the submittal package for this project.

- 2. Submit satisfactory proof to the owner that all required permits for, transport arrangements, disposal of asbestos containing or contaminated materials, etc., have been obtained.
- 3. Submit to Mr. Warren the description of plans for the construction of decontamination enclosure systems and for isolation of the work areas in compliance with these specifications and applicable regulations.
- 4. Submit documentation to Mr. Warren indicating that each employee has had instruction on the hazards of asbestos exposure, on use and fitting qualitatively and quantitatively of respirators, on protective dress, on use of showers, on entry and exit procedures from work areas, and on all aspects of safety and work procedures. Each employee must understand this instruction.
- 5. Post caution signs in and around the work area to comply with Section 1529 "Asbestos" of the Construction Safety Orders, Title 8 of the California Code of Regulations.
- 6. Owner and Contractor must agree in writing on building and fixture condition prior to commencement of work.
- 7. Submit manufacturer's certification that vacuums conform to ANSI 29.2-1979 (American National Standards Institute).

- 8. Provide disposal certificates to Owner as requested.
- 9. Submit to owner copies of security and safety log showing names of persons entering the workplace, date and time of entry and exit, record of any accident, emergency evacuation, or any other safety and/or health incident.

## PRE-CONSTRUCTION CONFERENCE

Prior to the beginning of actual removal activities, a pre-construction conference will be held between the consultant, the contractor and the owner representatives. At this conference, the contractor shall present a general overview of the following:

- 1. Abatement plans including
  - a. Drawings and placement of the decontamination shower facility.
  - b. Work area isolation plan with layout of engineering controls.
  - c. Security program.
  - d. Routing plan for removal of contaminated materials from the building.
- e. A listing of all tools, equipment and supplies proposed for use in the abatement program.
- 2. In order to expedite the approval of these documents, the contractor is encouraged to confer with the consultant during their preparation.
- 3. No abatement work shall be performed without approval of the abatement plans.
- 4. Description of protective clothing and approved respirators to be used.
- 5. Explanation of decontamination sequence to be used.
- 6. Description of the final clean-up procedures to be used.
- 7. Proposed landfill for disposal of waste materials.

## **PERSONNEL**

- 1. Superintendent and Foreman shall have-
- a. Training and knowledge of applicable regulations and expertise in safety and environmental protection. Training must be AHERA approved and the training provider must be listed in the Federal Register.
- b. Experience with abatement work as evidenced through participation in at least two public agency asbestos abatement projects.
- c. Records of medical examination required under applicable Federal or State regulations.

#### 2. Workmen shall have-

- a. Training as evidenced by the participation and successful completion of an EPA AHERA training course, given by an institution listed in the Federal Register.
  - b. Skills and experience with all phases of abatement work.
- c. Records of medical examination required under applicable Federal or State regulations.
- 3. Contractor shall at all times enforce strict discipline and good order among his workmen.
- 4. There shall be no smoking in buildings, or within 50 feet of any building maintained by the owner. This will be strictly enforced. Any deviation from this policy will cause the contractor to be fined \$500.00 dollars and the person that is the cause of the infraction to be removed from the job.
- 5. Maintain a sufficient number of trained and qualified workers, foremen and superintendents to accomplish the work within the required schedule.

## PERSONNEL PROTECTION

- 1. Prior to commencement of work, the workers shall be instructed and shall be knowledgeable in the areas described in Section 3 "Submittals and Notices".
- 2. Provide workers with personally issued and marked respiratory equipment approved by NIOSH and MSHA which are suitable for the asbestos exposure level in the work area according to CAL OSHA CCR 5144. Where respirators with disposable filters are employed, provide sufficient filters for replacement as required by the worker or applicable regulation.
- 3. Section 5144 requires respirators if airborne concentrations of asbestos fibers are higher than the CAL OSHA standard of 0.1 f/cc per 8 hour time weighted average. The type of respirator required depends on the asbestos concentrations.
  - a. Half face respirator if between the 1x and 10x standard.
  - b. Powered air purifying respirator if between the 10x and 100x standard.
  - c. Type "C" respirator if greater than the 100x standard.

The contractor is responsible for determining the concentration of asbestos fibers in the air. This can be done by analysis of air samples from actual or similar jobs. The consultant shall determine which type of respirator shall be used during the work. Fiber concentrations inside the work area above the permissible exposure level are not allowed without using type "C" respirators.

- 4. Provide authorized visitors with suitable respirators and filters whenever they are required to enter the work area, to a maximum of two sets per day.
- 5. Provide workers with sufficient sets of protective full body clothing. Such clothing shall consist of full body coveralls and headgear. Provide eye protection and hard hats as required by applicable safety regulations. Clothing shall be disposed of each time the worker leaves the work area. Polypropylene material will be required for the suits on this project.
- 6. Provide authorized visitors with suitable protective clothing, headgear, eye protection and footwear as described in section 5. They shall be given a maximum of two sets per day for whenever they are required to enter the work area.
- 7. Provide and post in the equipment room and the clean room, the decontamination and work procedures to be followed by the workers, as described in the following section.
- 8. Each worker and authorized visitor shall upon entering the job-site; remove street clothes in the clean change room and put on a clean protective suit and respirator with filters, before entering the equipment room or work area.
- 9. All workers and authorized visitors shall each time they leave the work area: Remove the protective suit and the respirator and proceed to the shower. The respirator must be taken to the shower to be cleaned. Clean the outside of the respirator thoroughly, remove filters, wet them and dispose of the filters in the container provided for that purpose and wash and rinse respirator. After the respirator is cleaned, place in a plastic zip lock bag for storage until the next use. Once the respirator is placed in a zip lock bag the worker or authorized visitor must now proceed with their own showering and hygiene practices.
- 10. Following showering and drying off, each worker and/or authorized visitor shall proceed directly to the clean change room and dress in clean clothes at the end of each day's work, or before eating, smoking, or drinking liquids.

- 11. Contaminated work footwear shall be stored in a clean area when not in use in the work area. Upon completion of asbestos abatement, dispose of footwear as contaminated waste or clean thoroughly inside and out using soap and water before removing from the work area or from the equipment and access area. Put all contaminated asbestos clothing in receptacles for disposal with other asbestos contaminated materials.
- 12. Workers removing waste from the area shall wear a respirator with filters and protective coveralls. Any worker not wearing a respirator will be warned once and removed from the project on the second offense.
- 13. Workers shall not eat, drink, smoke, or chew gum or tobacco at or on the work-site.
- 14. Workers shall be fully protected with respirators and protective clothing from the time of first disturbance of asbestos-containing or contaminated materials prior to commencing actual asbestos abatement and until final clean-up is completed in the regulated area.

# **EQUIPMENT REMOVAL PROCEDURES**

Clean external surfaces of contaminated containers and equipment thoroughly by wet sponging before moving such items into the equipment decontamination enclosure system washroom for final cleaning and removal to uncontaminated areas.

# MATERIALS AND EQUIPMENT

- 1. Store all materials subject to damage off the ground, away from wet or damp surfaces, and under cover sufficient to prevent damage or contamination.
- 2. Damaged or deteriorating materials shall not be used and shall be removed from the premises. Material that becomes contaminated with asbestos shall be disposed of in accordance with applicable regulations.
- 3. Tape—capable of sealing joints of adjacent sheets of plastic, and for attachment of the plastic sheet to finished or unfinished surfaces of similar or dissimilar materials and capable of adhering under both dry and wet conditions, including amended water.
- 4. Surfactant (wetting agent)- shall consist of 50% polyoxethylene ether and 50% of (polyoxyethylene) (polyglycol) ester, or equivalent, and shall be mixed with water to provide a concentration (of one ounce surfactant to 5 gallons water) of 32 ml / 20l of water.
- 5. Warning labels and signs-as required by CAL OSHA CCR 1529.
- 6. Provide suitable tools for asbestos removal and/or encapsulation and/or enclosure.

7. Contractor shall have posted at all times at the work site, one copy of OSHA Regulation 29 CFR 1926.58, Asbestos and one copy of EPA 40 CFR part 61, Subpart B: National Emission Standards for Asbestos, Asbestos Stripping Work Practices, and Disposal of Asbestos Waste.

#### PREPARATION OF WORK AREA

- 1. Provide G.F.I's for all power cords and machinery.
- 2.. Provide a shower and decontamination area. All water used must be filtered down to a one micron level before being disposed of down a sewage system.
- 3. All asbestos must be bagged in 6 mil bags or wrapped in 6 mil plastic and disposed of as non-hazardous or hazardous waste according to The EPA AHERA requirements.
- 4. All material shall be considered non-hazardous or hazardous according to the EPA definition of non-friable or friable. All materials shall be disposed of and manifested as non-hazardous or hazardous asbestos waste.
- 4. Pre-clean fixed objects within the proposed work areas, using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclose with minimum 6 mil plastic sheeting sealed with tape.
- 5. Clean the proposed work areas using HEPA vacuum equipment or wet cleaning methods as appropriate. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.
- 6. All visible debris must be cleaned prior to the visual inspection.
- 7. The decontamination drawing must be submitted with the other submittals and cannot be used without the permission of the consultant.
- 8. Worker Decontamination Enclosure System: Construct a three stage decontamination enclosure system contiguous to the work area consisting of one enclosed chamber as follows:
- 9. Equipment Decontamination Enclosure System:
  - a. A washroom, consistent with the plan submitted.
  - b. A clean & dirty room are required for this project.

- 10. Ensure that barriers and plastic linings are effectively sealed and taped. Repair damaged barriers and remedy defects immediately upon discovery.
- 11. Visually inspect enclosures at the beginning of each work period.

#### ASBESTOS REMOVAL

- 1. Prepare site by initially constructing the three stage decontamination enclosure.
- 2. Spray asbestos material with amended water, using spray equipment capable of providing a "mist" application to reduce the release of fibers. Saturate the material sufficiently to wet it to the substrate without causing excess dripping. Spray the asbestos material repeatedly during the work process to maintain a wet condition and to minimize asbestos fiber dispersion.
- 3. After completion of stripping work: All surfaces from which asbestos have been removed shall be detailed by wet brushing, sponging or cleaned by an equivalent method to remove all visible material. During this work the surfaces being cleaned shall be kept moist.

# CLEAN-UP

- 1. Remove visible accumulations of asbestos material and debris. Wet clean all surfaces within the work area.
- 2. Clean all surfaces in the work area and any other contaminated area(s) with water and/or HEPA vacuum equipment. After cleaning the work area, request visual clearance.

Following visual inspection by consultant, all surfaces from which asbestos have been removed shall be encapsulated with a protective coating of a recognized encapsulant. Contractor shall be responsible for quality of the covering.

- 3. All equipment used in the work area shall be included in the clean-up and shall be removed from the work areas following decontamination. All costs of all equipment used including dumpsters and disposal will be paid by the contractor.
- 4. If the consultant finds visible accumulations of dust in the work area, the contractor shall repeat the wet cleaning until the work area is in compliance, at the contractors' expense.
- 5. When a final inspection determines that the area is free of visible accumulations of dust and the decontamination air levels have been confirmed through constant testing specified herein, a final check shall be carried out to ensure that no dust or debris remains on surfaces as a result of dismantling operations.

- 6. The decision of the consultant is final as to whether the work area(s) pass inspection.
- 7. As the work progresses, to prevent exceeding available storage capacity on site, remove sealed containers of waste and dispose of as non-friable or friable waste (see Disposal of Asbestos-Containing Materials And Asbestos-Contaminated Waste).

# RE-ESTABLISHMENT OF OBJECTS AND SYSTEMS

- 1. Relocate objects moved to temporary locations in the course of the work to their proper positions, including new materials for securing as necessary.
- 2. Re-secure mounted objects removed in the course of the work to their former positions.

# DISPOSAL OF ASBESTOS-CONTAINING MATERIALS AND ASBESTOS-CONTAMINATED WASTE

As the work progresses, each day all material will be loaded out and moved to a central location or dumpster. All material will be bagged and considered as non-hazardous or hazardous waste and must be manifested as such. All containers will be disposed of at an authorized disposal site in accordance with the requirements of the disposal authority. Submit documentation regarding disposal to building owner and consultant. Dumpsters, disposal, and landfill fees are paid by the contractor.

This package of Technical Specifications prepared by Martin Warren, Asbestos Science Technologies, Inc. P.O. Box 505, Bangor, Ca. 95914. (530) 518-0934 OSHA # 15-5368

## GENERAL SPECIFICATIONS

# SCOPE OF WORK

Asbestos abatement contractor shall furnish all labor, materials, tools, equipment & other means as necessary for completing the asbestos removal & disposal of asbestos materials at 384 Miles Avenue in Yuba City, Ca. per the following:

Remove all asbestos containing materials at the above site as shall be indicated below.

All asbestos floor tile and mastic shall be removed and disposed of according to EPA requirements. All removal shall be performed wet. All removal shall be done by manual means. No cutting or abrading by mechanical means shall be allowed. All material removed shall be done by first wetting the material and then manually removing the material. All material shall be wrapped or bagged prior to placing the material into the 6 mil lined dumpster. All three dimensional material shall be removed down to a clean substrate. The onsite Site Surveillance Technician or Certified Asbestos Consultant shall be the recognized party for Asbestos Science Technologies, Inc. to determine visual cleanliness prior to clearance sampling. Negative pressure shall be at a minimum negative 0.02 inches of water. All manometric readings shall be given to the onsite air monitoring representative daily.

- 2. All areas shall be cleaned up and all asbestos materials removed from the project site according to regulations described within this document.
- 3. Clearance for this project will be by P.C.M. and visual analysis. All costs for failed clearances are the responsibility of the contractor.
- 4. All movable materials will be cleaned prior to being replaced.
- 5. The dumpster for this project will be lined with 6 mil plastic
- 6. All materials that are removed each shift will be placed in an area outside of the building in a secured area or in a dumpster designated for that purpose.
- 7. The decision of the consultant is final as to whether the area passes inspection. Any dust or debris which are part of this removal will cause the area to be re-cleaned.
- 8. Prior to the start of any work, the contractors submittal package, including the work plan, certificates of training, medicals, fit tests, licenses, registrations, insurances and an accident illness prevention program must be submitted and approved by the consultant. Work will not start until this criteria is met.
- 9. All sample results will be posted daily on the shower area as well as the office area to allow the workers and the public the ability to see the levels of fibers in the air. All sample results above 1.0 fibers per cubic centimeter criteria inside containment will cause a change from half face respirators to powered air purifying respirators which have a higher protection factor.

#### SITE INSPECTION

Contractor is responsible for visiting the project buildings and familiarizing himself/herself with all conditions pertaining to this project.

## **BUILDERS RISK LOSSES**

The owner will not be responsible for any losses suffered by contractor, including the interests of the contractor and the subcontractors, for their losses to the project described herein caused by the perils of fire, windstorm, lightning, smoke, hail, civil commotion, aircraft, riot, vehicle, explosion, vandalism and malicious mischief.

## CHANGES IN THE WORK

A. The owner may, without invalidating this contract, order extra work or make changes by altering, adding to, or deducting from the work, the price herein being adjusted accordingly. However, any changes from the terms of the contract or the specifications required by the owner shall not be valid unless the changes ordered are in writing with the price specified and signed by the owner.

- B. Contractor shall always be mindful of the presence of asbestos (in addition to the asbestos materials to be abated under this contract) and shall carry out his work with due diligence in light of this possibility. Contractor shall be, and remain at all times, solely responsible for the safety of employees in the performance of the work, and shall take all precautions necessary to ensure such safety.
- c. If contractor discovers asbestos, other than asbestos materials to be abated under this contract, upon such discovery, contractor shall take such action as is reasonably necessary and feasible to provide an interim safe and secure environment for employees and third parties until the determination can be made of how next to proceed.

# STOPPING THE WORK

- a. Work shall be stopped at any time it is determined that conditions are not within the specification requirements of applicable regulations. Stopping the work may be initiated by:
  - 1. The contractor
  - 2. The consultant
  - 3. Federal, state or local regulatory officials
  - 4. Owner Representative
- b. The stoppage of work shall continue until conditions have been corrected and corrective steps have been taken to the satisfaction of the persons having jurisdiction.
- c. Standby time required to resolve violations shall be at the contractor's expense.

## OWNERS RIGHT TO DO WORK

If the contractor defaults or neglects to carry out the work in accordance with the contract documents or fails to perform any provision of the contract, the owner may, one day after providing written notice to the contractor and without prejudice to any other remedy he may have, make good such deficiencies.

In such case, an appropriate change order will be issued deducting from the payments then or thereafter due the contractor, the cost of correcting such deficiencies including the cost of the consultant's additional services made necessary by such default, neglect or failure. If the payments then or thereafter due the contractor are not sufficient to cover such amount, contractor shall pay the difference to the owner.

# **SUPERVISION**

The supervision of this work will be done by Martin Warren or an employee of Asbestos Science Technologies, P.O. Box 505, Bangor, Ca. 95914. Phone number (530) 518-0934. Supervision of compliance with E.P.A., OSHA, State of California regulations and other provisions of the contract governing the removal and disposal of asbestos will be done by Martin Warren, acting on behalf of the owner.

## INSPECTION OF WORK

The representatives of the owner shall at all times have access to the work wherever it is in preparation or progress and contractor shall provide facilities for such access and for inspection.

Although the owner may have its representatives inspect the property at any time, the owner is under no duty to inspect the work or property.

## **CLEANUP**

The contractor shall at all times keep the premises free from accumulation of asbestos, waste material or rubbish caused by his/her employees or work, and at the completion of the work. Contractor shall remove all rubbish from and about the building and remove all tools and surplus materials and shall leave the work site clean. In the case of dispute, the owner may remove any waste or rubbish and charge the cost to the contractor.

All tools shall be kept secured when not in use or they shall be removed entirely from the site. At no time shall tools be accessible to occupants of this facility.

# TEMPORARY UTILITIES

The owner will furnish all water, electricity, and other utilities as needed for completion of the work. Restroom facilities will be provided by the abatement contractor.

## AIR MONITORING

Air monitoring will be provided throughout the project by Martin Warren or under the direction of Martin Warren. The contractor is not required to provide air monitoring under these specifications, except where it is required by Federal or State OSHA (or other) regulations for contractor compliance. All owner provided air monitoring is included within the contract of the consultant.

# **QUESTIONS PRIOR TO BID**

Direct all inquires regarding this project to:

Asbestos Science Technologies, Inc. P.O. Box 505
Bangor, Ca. 95914
Telephone # (530) 518-0934

# DESCRIPTION OF WORK

#### **GENERAL**

Furnish all labor, materials, employee training, services, insurance, notices and equipment to carry out the asbestos removal operation in accordance with EPA and OSHA regulations, and any other applicable Federal, State and local government regulations. This removal shall be completed as follows:

- 1. Remove all asbestos as has been previously described within these specifications. The contractor is responsible to make a determination of the thickness, character and amount of the material to be removed.
- 2. Any material which is unclear is the responsibility of the contractor for clarification.
- 3. A HEPA Vacuum is required to be onsite.
- 4. Clearance will be by visual, and/or P.C.M. analysis.
- 5. Workers will wear protective clothing and respirators at all times during removal and continuing whenever work is performed until clearance is achieved.
- 6. Access to the building for the purpose of removing asbestos must be from outside of the building.
- 7. All work will be performed using the federal and state regulations which follow:

# APPLICABLE DOCUMENTS AND REGULATIONS

Asbestos removal work shall comply with the requirements of:

- 1. All applicable Federal, State, and local laws and regulations.
- 2. Title 8, California Code of Regulations CCR Section 1529 and 5144 Occupational Safety and Health Administration (CAL OSHA).

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- 3. Title 40, Code of Federal Regulations, Part 61, Subparts A and B, National Emission Standards for Hazardous Air Pollutants, U.S. Environmental Protection Agency (EPA).
- 4. National Institute for Occupational Safety and Health (NIOSH):"Respiratory Protection.... A Guide For The Employee".

## SUBMITTALS AND NOTICES

The following notifications shall be filed by the contractor as required by law prior to commencement of work:

1. Notice of proposed abatement work with copy to owner, and to the regulatory office(s) below:

## **OSHA**

This notice should be sent not fewer than 1 day prior to work and shall include:

- a. Name and address of contractor.
- b. Address and description of facilities, including size, age and prior use of the facilities, and the approximate square or lineal footage of the asbestos material present.
- c. Scheduled starting and completion dates for project. Schedules for removal to be coordinated with the construction/replacement contractor and with the consultant.
  - d. Methods to be employed during project.
  - e. Procedures to be used to comply with this regulation.
- f. The name and address of the waste disposal site where the asbestos materials will be taken.

# ASBESTOS REMOVAL

- 1. Prepare site as explained.
- 2. Spray asbestos material with amended water, using spray equipment capable of providing a "mist" application to reduce the release of fibers. Saturate the material sufficiently to wet it to the substrate without causing excess dripping. Spray the asbestos material repeatedly during the work process to maintain wet conditions and to minimize asbestos fiber dispersion.

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# PROCEDURES FOR REMOVAL OF ASBESTOS MATERIALS

All material will be removed using state of the art techniques and equipment. Wet misting must be done during removal and workers must wear protective clothing and respirators during their work.

# **CLEANUP**

- 1. Remove visible accumulations of asbestos material and debris.
- 2. Clean all surfaces in the work area and any other contaminated areas with water and/or HEPA vacuum equipment. After cleaning the work area, request visual clearance. Following visual inspection by the consultant, all surfaces from which the asbestos have been removed shall be encapsulated.
- 3. All equipment used in the work area shall be included in the cleanup and shall be removed from the work area following decontamination. All costs of equipment used including dumpsters will be paid for by the contractor.
- 4. If the consultant finds any visible dust in the work area, the contractor shall repeat the wet cleaning process until the work is deemed complete by the consultant.
- 5. The decision of the consultant is final as to whether the work areas pass inspection.
- 6. The successful bidder will be notified of the start date. The consultant and the owner reserve the right to accept or reject any and all bids pertaining to this project. Only EPA accredited asbestos workers and supervisors may work on this project.
- 7. O.P.S.C. registration will not be required for this project.

For any questions regarding these specifications, contact

Martin Warren, Certified Asbestos Consultant, OSHA # 15-5368 P.O. Box 505 Bangor, Ca. 95914 (530) 518-0934 Wartin Warren

The contractor for this project will be put under contract according to the documents set forth by the school for contractual requirements. The consultant on the project will be the recognized arbitrating party to determine when the performance of the abatement contract is complete and will confirm with the school approval for the release of payment funds to the abatement contractor. If the school has other requirements for payment, they shall supercede these requirements listed above.

The asbestos abatement contractor listed below has read the above specifications and does hereby agree to abide by the terms of the specifications as they are prepared and written. All work on this project can only be done while the asbestos consultant is on site. Any deviation from this policy shall cause for the contractor to be fined according to the infraction.

Note: This specification is proprietary and may not be transferred, conveyed, used or given to any other hazardous materials inspection or testing firm for use in bidding or enforcement. This specification though used under Asbestos Science Technologies, Inc's direction is the property of Asbestos Science Technologies, Inc.

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