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1.1 Description of
of Work

- .1 Work under this Standing Offer Agreement covers the supply of all labour, material and equipment required for ASBESTOS ABATEMENT for Type 2 and 3 removals from buildings located within CFB Gagetown, Tunnel Systems, Training Area and Various Sites as directed by the Engineer in accordance with the WorkSafeNB, Safety Commission manual of Standard Practice for Safe Handling of Asbestos, latest edition. Air Monitoring as required or as directed by the Engineer.
- .2 Exact extent and location of work as per Engineer's instruction with each request for abatement services.

1.2 Engineer

- .1 The Engineer, as defined and stated in these specifications and contract documents will be the Commanding Officer 3 ASG Engineer Branch or a designated representative. The address of the Engineer is:

Contracts Office
3ASG Engineer Branch
Building B18
CFB/ASU Gagetown
PO Box 17000 Station Forces
Oromocto, NB E2V 4J5

Tel : (506) 422-2002 Ext 2677
Fax : (502) 4222-1248

1.3 Duration of
Contract

- .1 This SOA will extend from 01 April 2013 to 31 March 2015.

1.4 Certification of
Personnel

- .1 Submit satisfactory proof to Engineer that all employees have had instruction on the hazards of asbestos exposure, respirator

use, dress, use of showers, entry and exit from work areas, and all aspects of work procedures and protective measures.

- .2 The Contractor's superintendent(s) shall have attended an asbestos abatement course of not less than two (2) days duration, approved by the Engineer.
- .3 Submit proof of attendance in the form of a certificate. Acceptable courses:
 - .1 The Association of the Wall and Ceiling Industry (AWCI);
 - .2 Pinchen and Associates;
 - .3 Ontario Research Foundation (ORTECH);
 - .4. AGRA Monenco; and
 - .5. Confined Space Course.

1.5 Work Requisition

- .1 The work to be performed on demand when ordered by the Engineer is as follows:
 - .1 The Contractor will provide service as indicated in Section 00 21 13 Sub Section 1.1;
 - .2 The Contractor will advise the Engineer of the telephone number or location at which they or their representative may be contacted at all times;
 - .3 The Contractor, on receipt of an acceptance of Tender will be advised by the Engineer in writing, the names of persons authorized to request service. Work undertaken at the request of others will be entirely at the Contractor's risk with regard to payment;
 - .4 The Contractor will not refuse any call for service required by the Engineer and will carry out the service with a minimum of delay;
 - .5 When service is required, this person will notify the Contractor and detail the job. Service will be requisitioned on Form

CF 942, Call-Up Against A Standing Offer. This form will detail the work to be done and will be signed by an authorized person. Two copies of this form will be given to the Contractor; and

.6 The Contractor will proceed to the location of the job and carry out the work. On completion of the work detailed on CF 942, the Contractor will report to the Engineer and have the two copies of the CF 942, initialed indicating the work has been satisfactorily completed. The Contractor will retain one copy of CF 942, and return the other signed and dated copy with the invoice on completion of the work to the Engineer.

1.6 Quantities and
Basis of Payment

- .1 The work done under this Standing Offer will be paid for on a unit price basis. The Contractor will accept the payment as full consideration for everything furnished and done by them in respect of the work.
- .2 All transactions related to this agreement may be verified by Government Audit before or after payment is made under the terms of this Standing Offer.
- .3 Unit Prices:
 - .1 Provide unit prices for the following:
 - .1 Air Monitoring; (Estimate 80) and
 - .2 For asbestos removal PVC bag method and Asbestos Abatement Remediation refer to Sections 13571 and 13576; prices shall include labour, all equipment required for asbestos removal, bagging, overhead, profit and transportation.
 - .3 No separate charges for transportation which includes: travel to and from the Base and travel Portal to Portal are to be invoiced.
 - .1 Rate per hour for a Labourer

during normal working hours 0730 to 1600 hrs. Estimate 1000 hrs;

.2 Rate per hour for a Supervisor on site during normal working hours. Estimate 1000 hrs;

.3 Rate per hour for a Labourer on site for calls after normal working hours and holidays.

Estimate 300 hrs; and

.4 Rate per hour for a Supervisor on site for calls after normal working hours and holidays. Estimate 300 hrs.

.2 All material will be invoiced at the Contractors wholesale cost, plus a percentage of mark-up. For tendering purposes, the Contractor will submit their percent of mark-up on material. Estimate \$ 60,000.00

1.7 Disposal

- .1 The Contractor will dispose of bags at an Approved Dump Site for Asbestos Waste in proper bags as per section 13571. Disposal slips from the approved site will accompany invoices. (Estimate 500 bags)
- .2 If the Contractor punctures the bags while removing them from this site, the Contractor shall wet the contents and repackage prior to disposing of them.

1.8 Documents
Required

- .1 Maintain at job site, one copy each of following:
 - .1 Drawings issued for work;
 - .2 Specifications;
 - .3 Addenda;
 - .4 Other modifications to project;
 - .5 Field test reports;
 - .6 Copy of approved work schedule; and
 - .7 Manufacturer's application instructions.

1.9 Work Schedule

- .1 Provide, prior to commencing work, schedule showing anticipated progress stages and final completion of work.
- .2 Interim reviews of work progress based on work schedule will be conducted as decided by Engineer and schedule updated by Contractor in conjunction with and to approval of Engineer.
- .3 Work may be requested:
 - .1 During normal working hours, 0730 hrs through 1600 hrs on working days Monday to Friday except holidays;
 - .2 Outside normal working hours, 1600 hrs to 0730 hrs on working days, weekends and holidays. This section will include when work is requested to be completed at that time.
 - .3 The Contractor will not refuse any call for service requested by the Engineer and will respond within 24 hours.

1.10 Liability Insurance

- .1 The Contractor shall provide proof of Liability Insurance for the amount of Two Million dollars (\$2,000,000.00) to PWGSC prior to award of this contract.

1.11 Contractor's Access to Site

- .1 Access directly to and from site subject to traffic and security regulations established by DND.

1.12 Security Clearances

- .1 The Contractor shall maintain an up to date roster of employees involved in the this Service Contract including managers, supervisors and labourers. This roster shall be made available to the Engineer upon demand.
- .2 The Contractor shall provide proof of the

information contained within the roster to the Engineer upon demand. The Engineer reserves the right to have removed from the site those personnel who do not meet security requirements as laid down by the CFB Gagetown Military Police Section.

1.13 Contractor
Passes

- .1 All Contractor employees will carry an authorized Contractor Pass when employed on DND property. Such passes will be produced when requested by the Military Police, Commissionaires, Security Guards and persons in authority.
- .2 The Contractor will complete an application form for contractor passes for each individual. The Contractor will accompany the employee to the Military Police Identification Section for the issuance of pass.
- .3 A photocopy of passes is to be provided to the Engineer.
- .4 The Contractor will ensure Contractor passes are recovered from employees who cease to be employed on DND property. Such passes shall be returned to the Military Identification Section by the Contractor.

1.14 Contractor's
Use of Site

- .1 Use of site: limited to affected areas for work and storage as requested by the Engineer.
- .2 Do not unreasonably encumber site with materials and equipment.
- .3 Move stored products or equipment which interferes with operations of Engineer or building occupants.
- .4 Obtain and pay for use of additional storage or work areas needed for

operations.

- .5 Provide a list of all employees and suppliers, when requested, to the Engineer.

1.15 Codes and Standards

- .1 Perform work and enforce all regulations in accordance with National Building Code of Canada (NBC), Canada Labour Code Part 2, A Code of Practice for Working with Materials Containing Asbestos in NB prepared by the New Brunswick Occupational Health and Safety Commission (N.B. Reg 92-106), New Brunswick Occupational Safety and Health Regulation Part XVII for Confined Spaces and any other code of provincial or local application provided that in any case of discrepancy, the more stringent requirements shall apply.
- .2 Contractor must submit proof of registration with WorkSafeNB.
- .3 Meet or exceed requirements of contract documents, specified standards, codes and referenced documents.
- .4 When work is to be carried out in a confined space a copy of the pertinent SOP will be attached to the CF 942, Call-Up Against a Standing Offer; the Contractor must provide a copy of Confined Space Certification to the Engineer for all workers involved prior to entering and beginning confined space work.

1.16 WHMIS

- .1 Comply with regulations regarding Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and

provision of material safety data sheets acceptable to Human Resources and Skills Development Canada and Health Canada.

1.17 Existing Services

- .1 Submit schedule to and obtain approval from Engineer for any shut-down or closure of active service or facility. Adhere to approved schedule and provide notice to affected parties.
- .2 Where unknown services are encountered, immediately advise Engineer and confirm findings in writing.

1.18 Alterations, Additions or Repairs to Existing Building

- .1 Execute work with least possible interference or disturbance to occupants, public and normal use of premises. Arrange with Engineer to facilitate execution of work.
- .2 Where security has been reduced by work of Contract, provide temporary means to maintain security.
- .3 Provide temporary dust screens, barriers, warning signs in locations where renovation and alteration work is adjacent to areas used by public or government staff.

1.19 Additional Drawings

- .1 Engineer may furnish additional drawings to assist proper execution of work. These drawings will be issued for clarification only. Such drawings shall have same meaning and intent as if they were included with plans referred to in Contract documents.

1.20 Class 3

- .1 All operations on material containing

- Operation friable amosite or crocidolite.
- .2 Minor operation is defined as:
.1 1m² of friable asbestos insulation or less; or
.2 6 linear m of pipe insulation or less.
- .3 All operations not included in .2 above will be considered major.
- 1.21 References .1 CAN/CSA Z321 (R2006) Signs and Symbols for the workplace.
- .2 CAN/CSA S269.2 M87(R2003) Access Scaffolding for Construction Purposes.
- 1.22 Access .1 If authorized to use existing roads for access to project site, maintain such roads for duration of contract and make good damage resulting from contractors use of roads.
- 1.23 Sanitary Facilities .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances:
.1 Existing facilities may be used with Engineer's approval; and
.2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.
- 1.24 Enclosure of Structure .1 Provide temporary weathertight enclosures and protection for exterior openings required for access to work area.
- .2 Erect enclosures to allow access for installation of materials and working inside enclosure to include the use of Negative Air Unit of sufficient capacity

to meet Government standards.

- .3 Design enclosures to withstand wind pressure and snow loading.

1.25 Power and Water Supply

- .1 DND can provide, free of charge, temporary electric power and water for construction purposes.
- .2 Engineer will determine delivery points and quantitative limits. Engineer's written permission is required before any connection is made. Connect to existing power supply in accordance with Canadian Electrical Code.
- .3 Provide, at no cost to DND, all equipment and temporary lines to bring these services to project site.
- .4 Supply of temporary services by DND is subject to DND requirements and may be discontinued by The Engineer at any time without notice. The Engineer will not accept any liability for damage or delay caused by such withdrawal of temporary services.

1.26 Site Signs and Notices

- .1 Signs and notices for safety and instruction shall be in both official languages. Graphic symbols shall conform to CAN/CSA Z321 (R2006) Signs and Symbols for the Workplace.
- .2 Maintain approved signs and notices in good condition for duration of project and dispose of off site on completion of project or earlier if directed by Engineer.

1.27 Scaffolding

- .1 Construct and maintain scaffolding in

rigid, secure and safe manner, and in accordance with CAN/CSA-S269.2 M87 (R2003) Access Scaffolding for Construction Purposes.

- .2 Erect scaffolding independent of walls. Remove promptly when no longer required.

1.28 Removal of
Temporary
Facilities

- .1 Remove temporary facilities from site when directed by the Engineer.

PART 1 - GENERAL

1.1 Reporting Fires

- .1 Know location of nearest fire alarm box and telephone, including emergency phone number.
- .2 Report immediately all fire incidents to Fire Department as follows:
 - .1 telephone 911.
- .3 When reporting fire by telephone, give location of fire, name or number of building and be prepared to verify the location.

1.2 Interior and Exterior Fire Protection and Alarm Systems

- .1 Fire protection and alarm system will not be:
 - .1 obstructed;
 - .2 shut-off; and
 - .3 left inactive at end of working day or shift without authorization from Fire Chief.
- .2 Fire hydrants, standpipes and hose systems will not be used for other than fire-fighting purposes unless authorized by Fire Chief.

1.3 Fire Extinguishers

- .1 Supply fire extinguishers, as scaled by Fire Chief, necessary to protect work in progress and contractor's physical plant on site.

1.4 Blockage of Roadways

- .1 Advise Fire Chief of any work that would impede fire apparatus response. This

includes violation of minimum overhead clearance, as prescribed by Fire Chief, erecting of barricades and digging of trenches.

1.5 Smoking
Precautions

- .1 Observe smoking regulations at all times.

1.6 Rubbish and
Waste Materials

- .1 Rubbish and waste materials are to be kept to a minimum.
- .2 Burning of rubbish is prohibited.
- .3 Removal:
 - .1 Remove all rubbish from work site at end of work day or shift or as directed.
- .4 Storage:
 - .1 Store oily waste in approved receptacles to ensure maximum cleanliness and safety.
 - .2 Deposit greasy or oily rags and materials subject to spontaneous combustion in approved receptacles and remove.

1.7 Flammable and
Combustible Liquids

- .1 Handling, storage and use of flammable and combustible liquids are to be governed by the current National Fire Code of Canada.
- .2 Flammable and combustible liquids such as gasoline, kerosene and naphtha will be kept for ready use in quantities not exceeding 45 litres provided they are stored in approved safety cans bearing Underwriters' Laboratory of Canada or Factory Mutual seal of approval. Storage of quantities of flammable and combustible

liquids exceeding 45 litres for work purposes requires permission of Fire Chief.

- .3 Transfer of flammable and combustible liquids is prohibited within buildings or jetties.
- .4 Transfer of flammable and combustible liquids will not be carried out in vicinity of open flames or any type of heat-producing devices.
- .5 Flammable liquids having a flash point below 38° C such as naphtha or gasoline will not be used as solvents or cleaning agents.
- .6 Flammable and combustible waste liquids, for disposal, will be stored in approved containers located in a safe ventilated area. Quantities are to be kept to a minimum and Fire Department is to be notified when disposal is required.

1.8 Hazardous Substances

- .1 Work entailing use of toxic or hazardous materials, chemicals and/or explosives, or otherwise creating hazard to life, safety or health, will be in accordance with National Fire Code of Canada.
- .2 Obtain from Fire Chief a "Hot Work" permit for work involving welding, burning or use of blow torches and salamanders, in buildings or facilities.
- .3 When Work is carried out in dangerous or hazardous areas involving use of heat, provide fire watchers equipped with sufficient fire extinguishers. Determination of dangerous or hazardous areas along with level of protection necessary for Fire Watch is at discretion of the Fire Chief. Contractors are

responsible for providing fire watch service for work on a scale established and in conjunction with Fire Chief at pre-work conference.

- .4 Where flammable liquids, such as lacquers or urethanes are to be used, proper ventilation will be assured and all sources of ignition are to be eliminated. Fire Chief is to be informed prior to and at cessation of such work.

1.9 Questions and/or Clarification

- .1 Direct any questions or clarification on Fire Safety in addition to above requirements to Fire Chief through the Engineer.

1.10 Fire Inspection

- .1 Site inspections by Fire Chief will be coordinated through Engineer.
- .2 Allow Fire Chief unrestricted access to work site.
- .3 Co-operate with Fire Chief during routine fire safety inspection of work site.
- .4 Immediately remedy all unsafe fire situations observed by Fire Chief.

PART 1 - GENERAL

- 1.1 General .1 Contractor will take all reasonable steps to ensure that they and their employees have complied with all pertinent legislation and have protected the environment.
- 1.2 Fires .1 Fires and burning of rubbish on site not permitted.
- 1.3 Disposal of Wastes .1 Do not bury rubbish and waste materials on site unless approved by Engineer.
.2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.
- 1.4 Spill Protection .1 The Contractor must have adequate clean up materials for any potential hazardous materials used in the completion of the work (ie. Foams, fuels, oils, lubricants, etc).

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- 1 General .1 Use new material and equipment unless otherwise specified.
- .2 Within 7 days of written request by Engineer, submit following information for any new materials and products proposed for supply:
- .1 Name and address of manufacturer;
 - .2 Trade name, model and catalogue number;
 - .3 Performance, descriptive and test data;
 - .4 Manufacturer's installation or application instructions;
 - .5 Provide material and equipment of specified design and quality, conforming to published ratings for which replacement parts are readily available; and
 - .6 Use products of one manufacturer for equipment or material of same type or classification unless otherwise specified.
- 2 Manufacturer's Instructions .1 Unless otherwise specified, comply with manufacturer's latest printed instructions for materials and installation methods.
- .2 Notify the Engineer in writing of any conflict between these specifications and manufacturer's instructions. Engineer will designate which document is to be followed.
- 3 Delivery and Storage .1 Deliver, store and maintain packaged material and equipment with manufacturer's seals and labels intact.
- .2 Prevent damage, adulteration and soiling of material and equipment during delivery, handling and storage. Immediately remove rejected material and equipment from site.
- .3 Store material and equipment in accordance with suppliers instructions.

4 Conformance

- .1 When material or equipment is specified by standard or performance specifications, upon request of Engineer, obtain from manufacturer an independent testing laboratory report, stating that material or equipment meets or exceeds specified requirements.

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- 1 General .1 Conduct cleaning and disposal operations to comply with local ordinances and anti pollution laws.
- .2 Store volatile wastes in covered metal containers and remove from premises daily.
- .3 Prevent accumulation of wastes which create hazardous conditions.
- 2 Materials .1 Use, only cleaning materials recommended by manufacturer for surface to be cleaned, and as recommended by cleaning material manufacturer. Use only Environmentally Friendly if available.
- 3 Cleaning During Construction .1 Maintain the work including roof and building systems, at least on a daily basis free from accumulations of waste material and debris.
- 4 Final Cleaning .1 In preparation for acceptance of the project on an interim or final certificate of completion perform final cleaning.
- .2 Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials, from interior and exterior finished surfaces including glass and other polished surfaces.
- .3 Clean lighting reflectors, lenses, and other lighting surfaces.
- .4 Broom clean paved surfaces; rake clean other surfaces of grounds.
- .5 Remove debris and surplus materials from crawl areas and other accessible concealed spaces.

PART 1 - GENERAL

- 1.1 Related Work Specified Elsewhere .1 Asbestos Abatement: Section 13576.
- 1.2 Description of Work .1 Work in this section covers:
.1 The wet removal of visible fallen asbestos insulation from soil crawl-space floors as requested; and
.2 The application of cement dusting to crawlspace floors in removal areas.
- 1.3 Schedule .1 Schedule work similar to Section 13576.
- 1.4 Work Protection .1 Provide protective measures as per high risk methods defined by Safe Handling of Asbestos, a Manual of Standard Practice, New Brunswick Occupational Health and Safety Commission.
- 1.5 Air Monitoring .1 Air monitoring will be carried out by an independent agency to be paid by the Contractor.

PART 2 - PRODUCTS

- 2.1 Material and Equipment .1 Applicable materials and equipment as specified in Section 13576.

PART 3 - EXECUTION

3.1 Preparation

- .1 Install enclosure of work area, decontamination facilities and negative air pressure applicable to Type 2 or 3 removals.
- .2 Post warning signs.
- .3 Moisten crawlspace floors and maintain in moist condition during clean-up process.
- .4 Cut open structure over minimal access areas as required and as authorized by Engineer. Avoid cutting structural members.

3.2 Removal

- .1 Thoroughly saturate and rake or pick up insulation and place directly into waste bags.
- .2 When bag is full to manufacturer's recommendations, seal, wash down and place into second waste bag and remove from work area. Deposit waste bags in waste receptors.
- .3 After asbestos has been removed from crawlspace floors, moisten floor.
- .4 At completion of removal, clean all waste receptacles, reusable tools and equipment used to perform work.

3.3 Disposal

- .1 Dispose of asbestos as per Section 00 21 13 Sub Section 1.7.

PART 1 - GENERAL

- 1.1 Outline of Work .1 This section covers the wet removal of existing asbestos pipe insulation using glove bag method.
- .2 Cleaning, washing and sealing with CAN/CGSB 1.100-99 (see 2.1.13) the piping and fittings, after asbestos has been removed.
- .3 Asbestos removal must be done by certified asbestos removal contractors.
- 1.2 Regulatory Agencies .1 Comply with Federal, Provincial and local requirements pertaining to asbestos, provided that in any conflict among those requirements or with these specifications the more stringent requirements shall apply.
- 1.3 Notification .1 Notify the Workplace Health and Public Safety Program ten days in advance of work when required, (ie. Class 3 removal). Attention: Environmental Health Officer, Tel (506)851-7005.
- .2 Notify the Regional Office of Human Resources and Skills Development Canada, ten days in advance of work on this project when required.
- 1.4 Worker Protection .1 When asbestos removal is proceeding, the workers will be required to wash exposed skin before leaving the work site.
- .2 Workers involved with asbestos removal must wear a respirator while removing

asbestos insulation.

1.5 Existing
Conditions

- .1 Results of tests of asbestos-containing materials taken from pipe insulation within the scope of these projects are available for inspection at Engineer's Office. These are for general information only and are not necessarily representative of all asbestos- containing materials contained within the scope of these projects.

PART 2 - PRODUCTS

2.1 Material and
Equipment

- .1 PVC bag:prefabricated, purpose made, 0.25 mm minimum thickness, polyvinyl-chloride bag with integral 0.25 mm thick polyvinyl-chloride gloves. Bag equipped with reversible double-pull double throw zipper on top to facilitate installation on pipe and progressive movement along pipe and with straps for sealing ends of bag around pipe. Once filled bag cannot be reused and shall be disposed of as contaminated waste.
- .2 Protective clothing, coveralls and hoods: disposable type. Required if glove bag becomes damaged or punctured.
- .3 Respirators: non-powered half face respirator acceptable to Human Resources and Skills Development Canada with High Efficiency Particulate Aerosol (HEPA) cartridge filter. No worker shall possess facial hair which affects seal between respirator and face. Single use dust respirators will not be permitted.
- .4 Signs in both official languages: Helvetica Medium type letters, upper case:

"CAUTION, ASBESTOS HAZARD AREA" (25 mm),
"NO UNAUTHORIZED ENTRY" (19 mm). "WEAR
ASSIGNED PROTECTIVE EQUIPMENT" (19 mm),
"BREATHING ASBESTOS DUST MAY CAUSE SERIOUS
BODILY HARM" (7 mm).

- .5 Polyethylene: 0.15 mm thick minimum, in sheet size to minimize joints.
- .6 Sprayers: garden reservoir type, low velocity, capable of producing mist or fine spray.
- .7 Wetting agent: 50% polyoxyethylene 50% polyoxyethylene ether or other non-ionic surfactant proven to be effective in aiding wetting of asbestos.
- .8 Waste receptors: Metal or fibre drums with tight lids, or 0.15 mm (6 mil) minimum thickness polyethylene bag labelled in both official languages in Helvetica Medium type letters, upper case: "CAUTION, CONTAINS ASBESTOS FIBRES" (25 mm), "DO NOT MISHANDLE (19 mm), "BREATHING ASBESTOS DUST MAY CAUSE SERIOUS BODILY HARM" (7 mm). Waste receptors to be acceptable to waste disposal site and Department of the Environment.
- .9 Tape: fibreglass type duct tape, self-adhering for wet and dry conditions.
- .10 HEPA vacuum: High Efficiency Particulate Aerosol filtered vacuum equipment with a filter system capable of collecting and retaining mono disperse aerosol at 99.97% efficiency for particles 0.3 microns or larger.
- .11 Securing straps: For glove bag reusable nylon straps at least 25 mm wide with metal tightening buckle for sealing ends of bags around pipe and/or insulation.
- .12 Knife: knife with fully retractable blade for use inside glove bag.

- .13 Slow drying sealer: Product must have flame spread and smoke development ratings both less than 50. Product shall leave no stain when dry. Acceptable products: Borden Polyco 804 (white) or Double AD TC-55 (clear).

PART 3 EXECUTION

3.1 Preparation

- .1 Conduct preparation and removal of asbestos at scheduled times.
- .2 Cover with polyethylene, all surfaces below, and within a 4 m radius of work area. Turn up at walls and tape all joints.
- .3 Shut down air circulation system within work area.
- .4 Instruct workers on necessary safety procedures and protective measures.
- .5 Install signs around Asbestos Removal Area.

3.2 Removal

- .1 Isolate asbestos work area with tape barriers, saw-horses, or other barriers posted with notices marking area as Asbestos Removal Area.
- .2 Spray any areas of damaged jacketing with mist of amended water. Tape over damage to provide temporary repair.
- .3 Clean surface of pipe or minor amounts of fallen or damaged insulation by HEPA vacuuming or by damp wiping.

- .4 Place any tools necessary to remove insulation in tool pouch. Zip bag onto pipe with cloth securing straps. For valve bags seal valve cover with wire tie or equivalent.
- .5 Place hands into gloves and use necessary tools to remove insulation. Arrange insulation in bag to obtain full capacity of bag. Roll jacketing carefully to minimize the possibility of ripping or puncturing bags.
- .6 Insert nozzle of spray pump into bag through valve and wash down pipe and interior of bag thoroughly. Use one hand to aid washing process. Wet surface of insulation in lower section of bag and exposed ends of asbestos insulation remaining on pipe by spraying with water.
- .7 If bag is to be removed from pipe for use on new section of pipe, seal interior plastic closure before removing from pipe. Re-install in new location before opening interior closure.
- .8 If bag is to be moved along pipe, move bag, reseal to pipe using double-pull zipper to pass hangers. Repeat stripping operation.
- .9 If glove bag is ripped, cut or opened in any way, cease work and repair with tape before continuing work. If the rip, cut or opening is not easily repaired all workers in area shall put on protective clothing. All spilled material must be cleaned up and removed with a HEPA vacuum.
- .10 To remove bag after completion of stripping, wash top section and tools thoroughly. Place all tools in one hand (glove), pull hand out inverted, twist to create a separate pouch, double tape to seal. Cut between tape and place pouch with tools in next glove bag or into a

water bucket, open pouch underwater and clean and then allow to dry.

- .11 Pull 0.15 mm (6 mil) polyethylene bag over glove bag before removing from pipe. Remove securing straps. Unfasten zipper. Seal top of glove bag while removing from pipe.
- .12 After removal of bag ensure pipe is clean of all residue. If necessary, after removal of each section of asbestos, vacuum all surfaces of pipe, using HEPA filtered vacuum equipment or wipe with wet cloth. Ensure that surfaces are kept free of wet sludge which after drying could release asbestos dust into atmosphere.
- .13 After asbestos has been removed from pipe, seal all pipe surfaces with sealer to CAN/CGSB 1.100-99.
- .14 Place cloths, mops, sponges, rags, wire brushes, disposable filters and protective clothing in double waste bags. Seal bags tightly.
- .15 Vacuum all surfaces within work area including waste receptors, reusable equipment used to perform the work, shoes and soles of shoes.
- .16 Thoroughly wash respirators, eye protection, hard hats, hands and face.

PART 1 - GENERAL

- 1.1 Outline of Work .1 This section covers the removal of Class 2 or 3 asbestos materials from buildings located at CFB Gagetown.
- .2 Material disposal as per Section 00 21 13 Sub Section 1.7.
- 1.2 Notification .1 In accordance with Section 13571 Sub Section 1.3.
- 1.3 Worker Protection .1 Contractor to comply with Provincial asbestos regulations.
- .2 Workers removing or handling Class 2 or 3 asbestos products must wear respirators while removing and/or loading into waste containers.

PART 2 - PRODUCTS

- 2.1 Materials .1 Polyethylene: in 0.15 mm minimum thickness unless otherwise specified, in sheet size to minimize joints.
- .2 Waste receptors: sealed container of sufficient strength to hold asbestos products labelled in both official languages in Helvetica Medium type letters, upper case: "CAUTION, CONTAINS ASBESTOS FIBRES" (25 mm), "DO NOT MISHANDLE" (19 mm), "BREATHING ASBESTOS DUST MAY CAUSE SERIOUS BODILY HARM," (7 mm). Waste receptor to be acceptable to waste disposal site and Department of the Environment.

- .3 Respirators: types acceptable to Human Resources and Skills Development Canada suitable for appropriate asbestos exposure. Minimum requirement is non-powered half face with high efficiency Particulate Aerosol (HEPA) cartridge filters. See Section 13571 Sub Section 2.1.3

Note: Single use dust respirators will not be permitted.

- .4 HEPA vacuum: High Efficiency Particulate Aerosol filter vacuum with all attachments and fittings. Filter system shall collect 99.97% of aerosol particles 0.3 microns or larger.

PART 3 - EXECUTION

3.1 Preparation

- .1 Removal of Class 2 or 3 asbestos products shall be carried out by wet removal techniques. Dry removal will not be permitted.
- .2 Saturate products with water in advance of any removal.
- .3 Remove the saturated products in sections. Care is to be taken to minimize breakage of materials during removal. Before beginning the next section place the removed product in a waste receptor for disposal.
- .4 Each trailer load of asbestos waste is to be covered with polyethylene sheeting or tarpaulin, before transportation to Approved Disposal Site.
- .5 Clean all broken sections, dust, etc. from substrate and from polyethylene drop sheet and surrounding area with HEPA vacuum or

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wet cleaning. Reuse drop sheets or dispose
of as asbestos waste.