Department of National Defence

Specification

Standing Offer Agreement

Oil Boiler/Furnace Units Maintenance
Debert Area

CFB Halifax, NS

Job No.W010C-13-C311

2012-12-24

Section	Title	Pages
Division 01 - General Requirements		
01 11 00	GENERAL INSTRUCTIONS	8
01 35 30	HEALTH AND SAFETY REQUIREMENTS	6
01 35 35	DND FIRE SAFETY REQUIREMENTS	4
01 35 43	ENVIRONMENTAL PROCEDURES	1
01 61 00	COMMON PRODUCT REQUIREMENTS	3
01 74 11	CLEANING	2
Division 23 - Heating, Ventilating and Air-Conditioning (HVAC)		
23 52 00	BOILERS, FURNACES AND DISTRIBUTION SYSTEMS	4
23 52 00.01	ANNEX A BOILER/FURNACE CONDITION REPORT	1
23 52 00.02	ANNEX B LIST OF BOILERS AND FURNACES	1

END

PART 1 - GENERAL

1.1 RELATED SECTIONS

.1 Section 01 61 00 Common Product Requirements.

.2 Section 23 52 00 Boilers, Furnaces and Distribution Systems.

1.2 DESCRIPTION OF WORK

.1 Work under this Standing Offer Agreement comprises the furnishing of all labour, material, tools, equipment, transportation and supervision required for the inspection, maintenance, and emergency repairs to commercial and domestic boilers/furnaces and distribution systems as specified herein.

1.3 ENGINEER

.1 All reference to the Engineer in this specification, who is the Contract Inspector which is representing the Formation Construction Engineering Officer(FCEO).

.2 The Engineer will provide the Contractor with a list of his/her authorized representatives at the pre-job meeting.

1.4 WORK INCLUDED

.1 Work under this Standing Offer Agreement comprises the following:

.1 Provide an annual inspection to various types of commercial and heating domestic boiler/furnace units listed in Annex B List of Boilers and Furnaces. Perform inspection as detailed in Section 23 52 00 Boilers, Furnaces and Distribution Systems. Annual inspection will include:

.1 cleaning of boiler/furnace unit;

.2 replacement of parts as detailed in Section 23 52 00;

.3 check all associated equipment detailed in Section 23 52 00;

.4 provide Engineer with boiler/furnace condition report for each unit as laid out in Annex A Boiler/Furnace Condition Report; and

.5 clean-up.

.2 Provide repair service on an "as required basis" to boilers and furnaces and associated equipment.

1.4 WORK INCLUDED (Cont'd)

.1 (Cont'd)

.3 Replacement of boiler/furnace as requested by Engineer.

.4 Provide an emergency repair service available on a twenty-four(24) hour, seven(7) day per week basis.

1.5 LOCATION OF JOB SITES

.1 Areas covered under this specification are at the following locations:

.1 Great Village Tx site - Great Village, NS;

.2 Truro Armoury - Truro, NS;

.3 Amherst Armoury - Amherst, NS;

.4 Springhill Armoury - Springhill, NS;

.5 Pictou Armoury - Pictou, NS;

.6 New Glasgow Armoury - New Glasgow, NS;

1.6 SITE ACCESS

.1 Access to the site is under the direction of the Department of National Defence. All visitors entering areas issuing a daily pass will be aware of the requirement for search as a condition of issue.

.2 While within the confines of CFB Halifax all employees and representatives of the Contractor must comply with all of the Standing Orders as promulgated by Base Authorities. Engineer will provide copies of relevant Standing Orders.

1.7 PRE-JOB MEETING

.1 Immediately upon receipt of Standing Offer Agreement, the successful Contractor will contact the Engineer to arrange a pre-job meeting prior to commencement of any work.

1.8 CONTRACTOR QUALIFICATIONS

.1 The Contractor must satisfy the Engineer that he has adequate and qualified staff to perform the service expected. This includes the processing of all service calls within an acceptable time period both during normal and silent working hours.

.2 Whenever the Contractor uses Sub-contractors, they too must perform to and comply with all requirements of this Standing Offer Agreement.

1.9 WORKMANSHIP

.1 Workmanship must be the best quality executed by workers experienced and skilled in the respective duties for which they are employed.

.2 Do not employ any unfit person or anyone unskilled in their required duties. The Engineer reserves the right to require the dismissal from the site, workers deemed incompetent, careless, insubordinate or otherwise objectionable.

.3 Decisions as to the quality or fitness of workmanship in cases of dispute rest solely with the Engineer whose decision is final.

.4 The Contractor will employ a competent and experienced supervisor with the authority to speak on his behalf on day-to-day routine matters.

.5 All Work must be performed by qualified technicians.

1.10 CONTRACTOR'S USE OF SITE

.1 Contractor will be briefed on use of site by the Engineer.

.2 Do not unreasonably encumber site with materials or equipment.

.3 Move stored products or equipment which interferes with operations of Engineer or other Contractors.

.4 The Engineer will brief the Contractor on access to restricted areas.

.5 Remove or alter existing work to prevent injury or damage to portions of existing work which remain.

.6 Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as directed by Engineer.

.7 At completion of operations condition of existing work: equal to or better than that which existed before new work started.

1.11 CODES AND STANDARDS

.1 Perform Work in accordance with the latest edition of National Building Code of Canada(NBC), Canadian Electrical Code, National Fire Code of Canada, Canada Labour Code part II, CSA B139-09 "Installation Code for Oil-burning Equipment" and ULC Standards, and any other provincial or local code applicable. In any case of conflict or discrepancy, the more stringent requirements will apply.

.2 Meet or exceed requirements of Contract documents, specified standards, codes and referenced documents.

1.12 NORMAL WORKING HOURS

.1 Normal working hours will be 0730 to 1600 hours, Monday to Friday. Any work carried out other than normal working hours must be authorized by the Engineer.

1.13 PARKING

.1 One parking space will be made available on site for company vehicles and equipment only. Maintain and administer this space as directed.

1.14 LICENSES AND PERMITS

.1 The Contractor will be responsible for obtaining and paying for all licenses and permits required to perform the Work.

1.15 EXISTING SERVICES

.1 Where Work involves breaking into or connecting to existing services, give 24 hours notice for necessary interruption of mechanical or electrical service throughout course of work. Minimize duration of interruptions. Carry out work at times as directed by governing authorities with minimum disturbance to pedestrian and tenant operations.

.2 Provide alternative routes for personnel, pedestrian and vehicular traffic.

.3 Before commencing work, establish location and extent of service lines in area of work and notify Engineer of findings.

.4 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.

.5 Where unknown services are encountered, immediately advise Engineer and confirm findings in writing.

.6 Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction.

1.16 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING BUILDING

.1 Execute work with least possible interference or disturbance to building operations, 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.

1.16 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING BUILDING (Cont'd)

.4 Use only elevators, existing in building for moving workers and material.

.1 Protect walls of passenger elevators, to approval of Engineer prior to use.

.2 Accept liability for damage, safety of equipment and overloading of existing equipment.

1.17 PROTECTION OF EXISTING FACILITIES

.1 The Contractor must take all necessary precautions to ensure against damage to existing facilities. Any damage to such facilities as a result of the Contractors operations must be repaired or replaced by the Contractor at his own expense, as soon as is reasonably possible.

.2 Special coverings and protection must be provided to protect plants, walls, projections and adjacent work where materials are being removed, installed or hoisted.

.3 The Contractor must protect all occupant owned furnishings and equipment, and the building from damage during execution of this Standing Offer Agreement.

.4 Where the Engineer considers it necessary, provide and erect warning signs and barriers.

1.18 POWER AND WATER SUPPLY

.1 DND may 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 DND site representative at any time without notice, without acceptance of any liability for damage or delay caused by such withdrawal of temporary services.

.5 After the temporary service lines are no longer required, the Contractor must remove all lines and equipment, restore the connection points to their original condition and return the land to its original contour.

1.19 CUTTING, FITTING AND PATCHING

.1 Execute cutting, fitting and patching required to make work fit properly.

.2 Where new work connects with existing and where existing work is altered, or cut; patch and make good to match existing work.

.3 Obtain Engineer's approval before cutting, boring or sleeving load-bearing members.

.4 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.

1.20 CONCEALMENT

.1 Conceal pipes, ducts and wiring in floor, wall and ceiling construction of finished areas except where directed otherwise by the Engineer.

1.21 LOCATION OF FIXTURES

.1 Consider location of fixtures, outlets, and mechanical and electrical items indicated as approximate.

.2 Inform Engineer of conflicting installation. Install as directed.

1.22 HEATING AND VENTILATING

.1 Provide temporary heat and ventilation as required to:

.1 facilitate progress of work;

.2 protect work and products against dampness and cold;

.3 prevent moisture condensation on surfaces;

.4 provide ambient temperatures and humidity levels for storage, installation and curing of materials;

.5 provide adequate ventilation to meet health regulations for safe working environment.

.2 Maintaining strict supervision of operation of temporary heating and ventilating equipment to:

.1 conform with applicable codes and standards;

.2 enforce safe practices;

.3 prevent abuse of services;

.4 prevent damage to finishes;

.5 vent direct-fired combustion units to outside.

1.23 EMERGENCY AND SERVICE CALL-UPS

.1 The Contractor must maintain and provide the Engineer with contact numbers to be able to provide response to request for service from the Engineer or representative on a 24 hour, 7 day per week basis. If the request for service from the after hours Departmental Representative, the Contractor must, immediately upon completion of the service, report back to the Engineer describing the action taken to correct the problem. The following Work priorities and response time will apply:

.1 **Emergency:** A priority of "Emergency" is defined as a deficiency or breakdown that requires immediate attention to reduce the potential for danger to occupants, the general public, the environment, or the facility. Maintenance and minor construction identified with this priority must be responded to immediately and must be reported without delay to designated manager.

.1 Standard response times:

.1 Urban/rural: ASAP - Maximum 2 hours.

.2 **Routine:** A priority of "Routine" is defined as essential maintenance and minor construction which should be rectified at the earliest possible opportunity. It is considered as deficiencies or breakdowns that do not impair current operations or pose any danger to the occupants, the general public, the environment, or the facility.

.1 Standard response times:

.1 Urban/rural: 4 hours.

.2 The Contractor will be advised of the personnel authorized to request emergency service. Services undertaken at the request of unauthorized persons will be done at the Contractor's risk, with regards to payment.

.3 Report service calls executed outside normal working hours to the Engineer, immediately on the next working day.

1.24 INSPECTION

.1 All work and materials covered by this specification will be subject to inspection at any time by the Engineer or his/her representative.

1.25 REPORTING IRREGULARITIES

.1 The Contractor must notify the Engineer of irregularities in the work area, such as structural defects, mechanical and/or electrical problems and/or any beyond the scope of work.

1.26 GUARANTEE/ WARRANTY

.1 Where the Contractor supplies equipment purchased from a supplier or manufacturer, he must obtain from such supplier or manufacturer a warranty for the term specified and such warranty must be made out to DND.

.2 For all items where the manufacturer's normal guarantee/warranty periods exceed that specified the Contractor must obtain from the manufacturer or supplier, a warranty for the manufacturer's normal warranty period.

.3 All warranties must be in accordance with the requirements of the Contract documents and must be passed to the Engineer at the time of handing over the project.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END

PART 1 - GENERAL

1.1 CONSTRUCTION SAFETY MEASURES

.1 Observe and enforce construction safety measures by complying with the requirements of the following statutes and authorities:

.1 Canada Labour Code Part II and the Canada Occupational Health and Safety Regulations.

.2 The Nova Scotia Occupational Health and Safety Act and supporting Occupational General Safety Regulations as amended from time to time.

.3 Most recent amendments to the National Building Code of Canada, Part 8 and National Fire Code of Canada.

.2 Refer to Section 01 35 35, DND Fire Safety Requirements.

.3 Engineer will provide a copy of any relevant special written instructions to be followed.

.4 **Before Work Begins**

.1 Bidder/Tender to provide documentation if requested by the Crown, indicating all safety training attained for each person who will be involved with the Standing Offer.

.5 The following disciplinary measures will be taken for any violations of safety under this Standing Offer Agreement:

.1 **First Violation**: Verbal warning issued to the Contractor for the first violation of a safety regulation(Violation will be documented on Standing Offer file, copy to Contractor DCC or PWGSC).

.2 **Second Violation**: Written warning to Contractor for second violation of a safety regulation(Violation will be documented on Standing Offer file, copy to Contractor, DCC or PWGSC).

.3 **Third Violation**: A third violation of a safety regulation may result in the termination of the Standing Offer with a recommendation to the Contracting Authority that the Contractor be denied access to Formation Construction Engineering contracts(Documented to Standing Offer file, copies to Contractor, DCC or PWGSC).

.4 **Serious Violation**: For a serious violation of a safety regulation as deemed by a regulator, project manager or safety officer a recommendation will be made to the Contracting Authority to immediately terminate the Contract/Standing Offer(Violation documented on Standing Offer file, copies to Contractor, DCC or PWGSC).

1.1 CONSTRUCTION SAFETY MEASURES (Cont'd)

.5 (Cont'd)

.5 **Charges Laid or Guilty Determination by Courts**: Infractions of safety regulations that result in charges being laid by a regulator against the Contractor or the Contractor being found guilty by the courts may result in that Contractor being denied access to Formation Construction Engineering contracts.

1.2 HAZARD ASSESSMENTS

.1 Contractor must implement and carry out a health and safety hazard assessment program as part of the Work. Program to include:

.1 **Initial Hazard Assessment:** Carried out upon notification of Contract award and/or prior to commencement of Work.

.2 **On-going Hazard Assessments:** Performed during the progress of Work identifying new or potential health risks and safety hazards not previously known. As a minimum, hazards assessments must be carried out when:

.1 New sub-trade work, new sub-contractor(s) or new workers arrive at the site to commence another portion of the Work.

.2 The scope of Work has been changed.

.3 Work conducted in confined spaces.

.4 Potential hazard or weakness in current health and safety practices are identified by the Engineer.

.2 Hazard assessments will be project and site specific, based on review of Standing Offer documents and site.

.3 Each hazard assessment to be made in writing. Keep copies of all assessments on site for duration of Work. Upon request, make available to Engineer.

.4 The Contractor must notify the Engineer of suspected hazardous material during work and not apparent from drawings, specifications, or report pertaining to work(e.g. lead, asbestos etc.). Do not disturb such material pending instructions from the Engineer. The Engineer will make the necessary arrangements for testing the material as required.

1.3 ASBESTOS PRODUCT & ASBESTOS ACTIVITY

.1 Within the confines of the Base, the provision of new products containing fibrous asbestos materials is prohibited.

.2 Demolition or disturbance of spray or trowel-applied asbestos can be hazardous to health. Should material resembling spray or trowel-applied asbestos be encountered in course of work, stop work and notify Engineer immediately. Do not proceed until written instructions have been received from Engineer.

1.4 FASTENING DEVICES EXPLOSIVE ACTUATED

.1 Explosive actuated devices must not be used.

1.5 HOT WORK

.1 All hot work activity is to take place with Engineer's approval and written permission from the Formation Fire Chief(Hot work permit). Hot work permits and fire-watch requirements will be provided by the Dockyard Fire Hall at 427-3500.

.2 The ventilation system in the area of any hot work activity is to be isolated to prevent migration of fumes/smoke and to reduce any possible spread of fire to other areas of the facility.

.3 Contractor is to employ an employee trained in the use of fire extinguishers as fire watch during any hot work for a minimum of 30 minutes after activity has ceased.

1.6 CONFINED SPACES

.1 All work in confined spaces will be carried out in compliance with the Canada Occupational Safety and Health Regulations, Part XI.

.2 The Contractor to provide and maintain all equipment as required by any person to enter and/or perform work in a safe manner, in compliance with the Canada Occupational Safety and Health Regulations, Part XI.

.3 The Contractor to provide and maintain training, as required by the Canada Occupational Safety and Health Regulations, Part XI.

.1 The Contractor and/or his employees must provide proof of training and qualifications when requested by the Engineer.

.4 The Contractor to provide the Engineer with a copy of an «Entry Permit» for each and every entry into the confined space to ensure compliance with the Canada Occupational Safety and Health Regulations, Part XI.

1.6 CONFINED SPACES (Cont'd)

.5 The Contractor to have a hazard assessment of the confined space performed.

.1 The Contractor to provide the Engineer with a copy of the hazard assessment.

1.7 FALL PROTECTION

.1 All work carried out above the mandatory height restrictions, from unguarded structure and/or scaffolding, will be done in compliance with the Canada Occupational Safety and Health Regulations, Part XII, Section 12.10.

.2 The components of a fall protection system must meet the standards as outlined in the Canada Occupational Safety and Health Regulations, Part XII, Section 12.10(2).

.3 The Contractor is to ensure fall protection equipment is maintained, inspected and tested by a qualified technician as required by the Canada Occupational Safety and Health Regulations, Part XII, Section 12.3.

1.8 ARC FLASH

.1 The Contractor is to ensure all electrical equipment such as switchboards, panel boards, motor control centres and meter socket enclosures be marked to warn persons of potential electric shock and arc flash hazards. This labeling is required for all new & modified installations.

.2 The warning label must also include information regarding «arc flash hazard category(0 to 4)» and the «Flash Protection Boundary» as defined in NFPA 70E. All projects specifications must include short circuit study and flash hazard analysis.

.3 In accordance with the new CSA Standards Z462-08 para 4.3.3.3 Electrical Contractors are now required to perform a shock and flash hazard analysis to select the appropriate PPE to wear. Electrical Contractors are now required Arc-rated personal protective equipment while troubleshooting and diagnostic testing that cannot be performed unless the electrical conductor or circuit part is energized. All Contractor work practices must protect each employee from arc flash and from contact with live parts directly with any part of the body or indirectly through some other conductive object.

1.9 SAFETY

.1 The Contractor must perform site hazard assessments to establish site specific safe work practice procedures for the safety and well being of his/her employees. Copies must be made available to Department of National Defence upon request.

1.9 SAFETY (Cont'd)

.2 All copies of the formal Hazard Assessments conducted by the Contractor throughout the duration of the work will be retained and made available to the Engineer immediately upon request.

.3 It is the Contractor's responsibility to be familiar with all applicable Safety Acts, Regulations, Codes and Standing Offer requirements. These must be identified and addressed in the Safety Plan, by identifying Standard Operating Procedures(SOP) and safe work practices(SWP) which incorporate clear and specific control measures, applicable rules, procedures and practices, all of which will become mandatory.

.4 The Contractor must ensure all workers and authorized persons entering the work site are notified of and abide by the posted safety plan, safety rules, procedures, safe work practices and applicable Safety Acts, Regulations, and codes. Any person not complying with these will not be permitted on the site.

.5 Contractor must ensure that all applicable personal protective equipment(PPE) is used.

.1 All personnel are required to wear hard hats, in accordance with CSA Z94.1-05.

.2 All personnel are required to wear safety footwear, in accordance with CSA Z195-09.

.3 All personnel are required to wear eye & face protection, in accordance with CSA Z94.3.1-09.

.4 When and where noise level is above 85 decibels; all personnel are required to wear hearing protection, in accordance with CAN/CSA Z94.2-02(R2007).

.5 Where toxic or noxious gas fumes, or oxygen deficiency or excessive dust may occur, so as to create a hazard to life, safety or health; all personnel are required to wear respiratory protection, in accordance with CAN/CSA Z94.4-02(R2007).

.6 The Engineer will coordinate arrangements for the Contractor to be briefed on site safety within fourteen(14) days of award of Standing Offer Agreement.

1.10 SITE SIGNS AND NOTICES

.1 Safety and instruction signs and notices:

.1 Signs and notices for safety and instruction must be in both official languages. Graphic symbols must conform to CAN/CSA Z321-96(R2006).

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END

PART 1 - GENERAL

1.1 EMERGENCY REPORTING

.1 Telephone number: Dial 9-1-1.

1.2 FIRE SAFETY ENFORCEMENT

.1 Within the confines of the Base, the prescription and enforcement of mandatory fire safety measures will be exercised under the authority of the Formation Fire Chief.

.2 Comply with and enforce compliance by all Contractor personnel with all requirements of this specification section, and with the most recent edition of the National Building Code of Canada(NBC) and the National Fire Code of Canada(NFC), including all subsequent revisions issued by the National Research Council of Canada.

.3 The Engineer reserves the right to require the dismissal from site of persons deemed careless or otherwise in violation of the fire safety requirements.

1.3 FIRE SAFETY BRIEFING

.1 Prior to commencement of work under this Standing Offer, the Engineer will arrange a meeting of all parties concerned to review and clarify requirements for fire safety measures. This may involve a briefing by the Formation Fire Chief.

.2 The Engineer will provide direction for reporting of fire including the emergency telephone number for fire reporting and location of fire alarms within or adjacent to work area.

1.4 FIRE WATCH

.1 For hot work activity, the Contractor will provide the service of fire-watch persons on a scale and schedule as prescribed by the Dockyard Fire Hall at the time of issuance of the hot work permit.

1.5 FIRE EXTINGUISHERS

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

1.6 SMOKING PRECAUTIONS

.1 In accordance with these fire safety requirements particular to the work area and site, the Engineer and Formation Fire Chief will designate hazardous areas as well as non-restricted areas where smoking may be permitted.

1.6 SMOKING PRECAUTIONS (Cont'd)

.2 Smoking is prohibited in all buildings.

.3 In all other areas, exercise care and comply with written or oral directives of the Engineer for the use of smoking materials.

1.7 REPORTING FIRE INCIDENTS

.1 Report immediately all fire incidents as follows:

.1 activate nearest fire alarm, or

.2 dial 9-1-1 or designated number given at the time of briefing; and

.3 telephone the Engineer.

.2 Persons activating fire alarm must remain at the alarm to direct the Fire Department to the scene of the fire.

.3 When reporting a fire by telephone, give location of fire, name and number of building and be prepared to direct the Fire Department to the scene of the fire.

1.8 INTERIOR & EXTERIOR FIRE PROTECTION AND ALARM SYSTEM

.1 Notify Formation Fire Chief at least 48 hours prior to scheduling any work that may require fire alarm and/or protection systems to be:

.1 obstructed in any way;

.2 shut-off; and/or

.3 left inactive at the end of a working day or shift.

.2 Do not commence any such work until Engineer confirms approval and direction by the Formation Fire Chief.

.3 Fire hydrants, standpipes and hose systems must not be used for other than fire fighting purposes unless authorized by the Engineer and the Formation Fire Chief.

1.9 BLOCKAGE OF ACCESS FOR FIRE APPARATUS

.1 Obtain approval of the Engineer and Formation Fire Chief 24 hours prior to commencing any work that by any means would impede access for fire fighting apparatus. Immediately notify the Engineer of any infringement on minimum vertical or horizontal clearances either inside or outside buildings, as prescribed by the Formation Fire Chief.

1.10 RUBBISH & WASTE MATERIAL

.1 Storage:

.1 Where it is necessary to store oily waste in work areas exercise extreme care to ensure maximum possible safety and cleanliness.

.2 Greasy or oily rags or materials subject to spontaneous combustion must be deposited and kept in a receptacle approved by the Formation Fire Chief and removed as directed by the Engineer.

.2 The burning of rubbish is prohibited.

.3 Removal:

.1 All rubbish must be removed from the work site at the end of the work day or shift or as directed by the Engineer.

1.11 FLAMABLE LIQUIDS

.1 The handling, storage and use of flammable liquids are to be governed and guided by the requirements established by the Formation Fire Chief and in accordance with the approved fire safety plan.

.2 Indoor storage of flammable liquids must not exceed thirty(30) litres provided that they are stored in areas and containers approved by the Formation Fire Chief.

.3 The Engineer reserves the right to require removal from the site any storage containers not acceptable to the Formation Fire Chief.

.4 The Engineer will not permit indoor storage of qualities of flammable liquids exceeding thirty(30) litres for on-site work purposes, without the written permission of the Formation Fire Chief.

.5 Transfer of flammable liquids within buildings is prohibited.

.6 Transfer of flammable liquids must not be carried out in the vicinity of open flames or any type of heat producing devices.

.7 Flammable liquids having a flash point below twenty-two(22) degrees C such as naphtha or gasoline must not be used as solvents or cleaning agents.

.8 Flammable waste liquids, for disposal, must be stored in approved containers located in a safe ventilated area. Quantities are not to exceed thirty(30) litres. Dumping or burning of flammable liquids on site is prohibited.

1.12 HAZARDOUS SUBSTANCES

.1 Exercise special precautions necessary to safeguard life and property from damage by fire or explosives.

.2 If the work entails the use of any toxic or hazardous materials, chemicals or explosives, or otherwise creates a hazard to life, safety or health, work must be in accordance with the most recent edition of the requirements of the National Fire Code of Canada, and measures prescribed by the Formation Fire Chief.

1.13 HAZARDOUS HOT WORK

.1 Prior to commencing any «Hot Work» involving open flame, burning, welding or heating, the Contractor must obtain a «hot work permit» issued by the Formation Fire Chief at the Dockyard Fire Hall, 427-3500.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END

PART 1 - GENERAL

1.1 DEFINITIONS

.1 **Environmental Pollution and Damage:** Presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade environment aesthetically, culturally and/or historically.

.2 **Environmental Protection:** Prevention/control of pollution and habitat or environment disruption during construction. Control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2 FIRES

.1 Fires and burning of rubbish on site are not permitted.

1.3 DRAINAGE

.1 Ensure pumped water into waterways, sewer or drainage systems is free of suspended materials.

.2 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END

PART 1 - GENERAL

1.1 RELATED SECTIONS

.1 Section 01 11 00 General Instructions.

.2 Section 23 52 00 Boilers, Furnaces and Distribution Systems.

1.2 QUALITY

.1 Products, materials, equipment and articles incorporated in Work must be new, not damaged or defective, and of best quality for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.

.2 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.

.3 Should disputes arise as to quality or fitness of products, decision rests strictly with Departmental Representative Engineer based upon requirements of Contract Documents.

.4 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.

.5 Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

1.3 AVAILABILITY

.1 Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for items. If delays in supply of products are foreseeable, notify Engineer of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of Work.

.2 In event of failure to notify Engineer at commencement of Work and should it subsequently appear that Work may be delayed for such reason, Engineer reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

1.4 STORAGE, HANDLING AND PROTECTION

.1 Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.

.2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.

.3 Store products subject to damage from weather in weatherproof enclosures.

.4 Remove and replace damaged products at own expense and to satisfaction of Engineer.

1.5 MANUFACTURER'S INSTRUCTIONS

.1 Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly from manufacturers.

.2 Notify Engineer in writing, of conflicts between specifications and manufacturer's instructions, so that Engineer will establish course of action.

.3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes Engineer to require removal and re-installation at no increase in Contract Price or Contract Time.

1.6 REMEDIAL WORK

.1 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Co-ordinate adjacent affected Work as required.

.2 Perform remedial work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

1.7 ACCEPTABILITY OF MATERIALS

.1 After award of Work, requests for "acceptance" of materials in addition to those presently established as "acceptable" by Contract Documents need be provided to the Engineer.

.2 Requests must be supported with sufficient product information to enable an assessment to be made for approval.

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

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END

PART 1 - GENERAL

1.1 PROJECT CLEANLINESS

.1 Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.

.2 Maintain Work in tidy condition, free from accumulation of waste products and debris, other than that caused by Owner or other Contractors.

.3 Provide on-site containers for collection of waste materials and debris.

.4 Dispose of waste materials and debris off site.

.5 Store volatile waste in covered metal containers, and remove from premises at end of each working day.

.6 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.

.7 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.

1.2 FINAL CLEANING

.1 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.

.2 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.

.3 Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, and floors.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END

PART 1 - GENERAL

1.1 RELATED SECTIONS

.1 Section 01 11 00 General Instructions.

.2 Section 01 61 00 Common Product Requirements.

1.2 REFERENCES

.1 Canadian Standards Association(CSA International)

.1 CSA B51-09, Boiler, Pressure Vessel, and Pressure Piping Code.

.2 CSA B139-09, Installation Code for Oil-Burning Equipment.

.3 CSA B140.7-05, Oil Burning Equipment: Steam and Hot-Water Boilers.

1.3 DESCRIPTION OF UNITS

.1 **Steam and Hydronic:** The steam and hydronic boiler is intended to include the complete boiler and distribution system complete with oil burner, oil accessories, such as controls, all filters, thermostats, draft regulators, combustion chambers, smoke pipe, fuel tanks, valves, vents, gauges, piping, condensate pumps and tanks, high and low water shut offs, automatic boiler feed steam traps, strainers, radiator valves, controls and wiring, baseboard radiation and unit heaters which are to be kept free of dust and other foreign materials.

.1 **Note:** Distribution system also includes zone valves, circulator pumps, and related controls.

.2 **Furnace:** The furnaces are intended to include the oil burner, oil accessories, such as controls, air and oil filters, thermostats, humidistats, draft regulators, combustion chambers, smoke pipe, fuel tanks, valves, vents, tank gauges, piping, humidifiers, damper and fan motors on warm air units.

.3 Oil burners listed in Annex B consist of various types of boilers and furnaces:

.1 warm air units;

.2 hot water heaters; and

.3 steam boilers.

1.3 DESCRIPTION OF UNITS (Cont'd)

.4 Many of the burners are of the gun type, while others are of the commercial class of various manufacturers. For the purpose of this Standing Offer Agreement and basis of payment "Unit Price" structure per year, Annex B identifies the types of units.

1.4 ANNUAL INSPECTION

.1 The Contractor must perform an annual inspection for all commercial and domestic units listed in Annex B and will consist of the following tasks:

.1 A complete clean-up of all units as soon as the Standing Offer Agreement is awarded, to be completed by end of the Standing Offer Agreement year.

.1 This will include the removal of all soot, carbon and scale from the combustion and gas passes as well as the smoke pipe, and the removal of all dust, lint and foreign objects from the baseboard radiation and unit heaters.

.2 Open and close commercial boiler for Labour Canada Inspector to inspect.

.1 This will include all new gaskets to close up boiler and clean water side of boiler.

.2 If boiler is approved by Labour Canada Inspector, the Contractor will close boiler and perform efficiency test.

.3 Contractor must forward the Labour Canada Inspection sheet to the Engineer. Failure to forward inspection sheet will require Contractor to redo the annual inspection at no additional cost to Engineer(DND).

.4 Contractor will follow Labour Canada Inspector directions and recommendations at all times and must notify Engineer of opening and closing of commercial boilers only.

.3 Test for water in oil tanks.

.4 A complete overhaul of the burner assembly including motor forced draft fan, electrodes, combustion tube and head, fuel pump, solenoid valves where fitted, photocells and ignition transformer, replacing parts as consider necessary. It will be the responsibility of the Contractor to determine if parts must be replaced in order to maintain serviceability of units.

.5 Replace all burner nozzles, air and oil filters annually.

1.4 ANNUAL INSPECTION (Cont'd)

.1 (Cont'd)

.6 Check all humidifiers, washing out water holding pan and drum pad. Set up float on each annual cleaning, replacing all humidifier parts where considered necessary.

.7 Check the complete control system, including wiring and wiring harness, and replace controls and wiring where necessary.

.8 Check thermostats and humidistats to ensure proper installation and functioning. Replace when necessary.

.9 Contractor must ensure that all smoke pipe joints are tight and secure with a minimum of 3 sheet metal screws per joints.

.10 Carry out a combustion test of each unit to ensure the units are set up to provide maximum efficiency with a smoke maximum of one(1).

.11 In addition to the regular combustion test required on all units at each overhaul, the Contractor will carry out a warm air furnace smoke test to ensure that all joints in the combustion chambers, heat exchangers, etc. are tight. The purpose of this test is to ensure that combustion gases cannot escape to the warm air side of the furnace. All tests must be recorded and any defect found must be immediately reported to the Engineer.

.12 Fill out a Boiler/Furnace Condition Report for each unit as laid out in Annex A of this specification.

.2 If it is found at any time that the furnace, hot water boiler, steam boiler or parts such as oil tank complete with oil lines and gauge, duct work, flue pipe complete with reducer, condensate pump complete with tank and lines, steam lines, unit heaters, and humidifiers are found to be defective beyond the service stated in this section, these items must be immediately brought to the attention of the Engineer. A decision will be given as to the action to be taken, which may result in a negotiated price. These items are not intended to be covered in the "Unit Price" of the basis of payment.

.3 All work and parts replacement in para 1.1.1 to 1.1.12 are intended to be covered in the "Unit Price" of the basis of payment for domestic units during the entire period of this Standing Offer Agreement.

.4 The Contractor must exhibit extreme diligence in the performance of the service inspection. The importance of this aspect of the Standing Offer Agreement cannot be over emphasized.

1.5 SERVICE CALLS

.1 The Contractor must provide service calls in accordance with Section 01 11 00 General Instructions.

.2 Contractor will be responsible to answer all service calls during the period of the Standing Offer Agreement and give uninterrupted service on all furnace units as specified. No extra charge will be honored for re-occuring service calls or cleanups made during the season because of failure of the Contractor to do thorough cleanup, adjustments, inspections or part replacement at the initial overhaul.

.3 Service calls on units other than designated in the "Unit Price" structure must be honored with the same promptness and efficient service as for units covered in the "Unit Price".

.4 Additional service calls not covered within the specification, such as shortage of oil, leaky tanks, flooded basements, electrical failures external to the unit, emergencies, and unit or major component replacement must be honored by the Contractor but will be paid for as a separate item and supported with a PWGSC-TPSGC 942 "Call-up Against a Standing Offer".

PART 2 - PRODUCTS

2.1 MATERIALS

.1 Materials and products in accordance with Section 01 61 00 - Common Product Requirements.

.2 All replacement parts must be either new or factory reconditioned of the proper type and size to provide dependable and efficient operation.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

.1 **Compliance:** Comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheet.

END

Location of Boiler/Furnace:_____

Make of Unit:_____

Make of Humidifier:_____

Age of Unit:_____

EFFICIENCY TEST RESULTS:

Smoke:_____ Draft: _____

Temp: _____ CO: _____

Efficiency Rate:_____

Nozzle Size:_____ BTU:_____

CONDITION OF:

Baffles: _____

Flue Pipe:_____

Reducer:_____

Duct Work:_____

Humidifier:_____

Wiring Harness:_____

Heat Exchanger:_____

Oil Tank, Gauge & Lines:_____

_____

Overall Condition of Boiler/Furnace:_____

_____

_____

Technician:_____ **Date:**_____

List of Units for Annual Inspection:

	Location	Building #	# of Units	Type of System
1	Great Village Tx site, Great Village, NS	GV1	2	Volcano Starfire hot water boilers
2	Truro Armoury, Truro, NS	TA1	1	New Yorker FR Series hot water boiler
3	Truro Armoury, Truro, NS	TA2	1	FP Industries E5-15-5-15S low pressure steam boiler
4	Truro Armoury, Truro, NS	TA3	1	Newmac hot air furnace
5	Amherst Armoury, Amherst, NS	AA1	1	Weil-McLain No. 88 low pressure steam boiler
6	Amherst Armoury, Amherst, NS	AA1	1	FP Industries E5-15-5-15S low pressure steam boiler
7	Amherst Armoury, Amherst, NS	AA1	1	Kerr Nova 125 hot water boiler
8	Springhill Armoury, Springhill, NS	SA1	4	Hydro Therm MO Series hot water boiler
9	Springhill Armoury, Springhill, NS	SA1	1	Fuel Master C Series forced draft burner(range furnace)
10	Springhill Armoury, Springhill, NS	SA1	1	Kerr Saturn hot water boiler
11	Pictou Armoury, Pictou, NS	PA3	2	Weil-McLain No. 68V hot water boilers
12	Pictou Armoury, Pictou, NS	PA3	2	Burham V-907-WO hot water boilers
13	Pictou Armoury, Pictou, NS	PA3	1	Power Flame Type C burner(range furnace)
14	Pictou Armoury, Pictou, NS	PA3	1	A.O. Smith COF hot water boiler
15	New Glasgow Armoury, New Glasgow, NS	NG1	1	Burnham Hydronics model V906A hot water boiler