

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

1 **SCOPE**

This specification reflects those characteristics that are essential to the minimum needs of the government for Process Ovens (Qty: 2). The scope of work shall include the “Turn-Key” installation, operational testing/commissioning and training of the equipment as specified herein (or needed to make each oven a complete/functional system). It is the government’s intent that a single (primary) contractor be awarded this contract and be responsible for the accomplishment of all work detailed by this specification.

2 **APPLICABLE DOCUMENTS**

The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on the date of an invitation for bids or a request for proposals shall apply.

2.1 **SAFETY REQUIREMENTS**

- Safety Requirements For TRIDENT Refit Facility (TRF), Bangor

A copy of this document is attached to this specification (See Enclosure 1).

2.2 **ADDITIONAL SAFETY REQUIREMENTS** - In addition to the safety requirements specified in Paragraph 2.1, the following is requisite:

2.2.1 The equipment and its component parts shall be in compliance with applicable Code of Federal Regulations (CFR) Title 29, Part 1910. By definition, any equipment will be deemed acceptable and approved by TRF, Bangor, if it meets specific Occupational Safety and Health Administration (OSHA) conditions outlined in CFR Title 29, Part 1910; Subparts "O" and "S". Specifically, equipment will be "Accepted" by TRF, Bangor, if it has been inspected and found by a Nationally Recognized Testing Laboratory (NRTL) to conform to specified plans or procedures of applicable codes. The equipment (as a whole system) shall be Nationally Recognized Testing Laboratory (NRTL) inspected and certified (by an OSHA authorized third party). Two (2) “hard” copies of the NRTL certification report shall be provided. If the equipment type/model has already been NRTL inspected and certified, a certification report (two (2) “hard” copies) or documentation mounted on the equipment, (which acknowledges it is NRTL certified), shall be provided.

2.3 **CRANE/WEIGHT HANDLING EQUIPMENT REQUIREMENTS**

- Management of Weight Handling Equipment (June 2016) – NAVFAC P-307.

A copy of this document can be provided upon request.

3 **GENERAL REQUIREMENTS**

3.1 **GENERAL DESCRIPTION OF SYSTEM** - The following shall meet the minimum government requirements for a “Turn-Key” Process Ovens (Qty: 2):

3.1.1 **WORK INCLUDED** - The Contractor shall be responsible for the following:

- Design, manufacture, test and groom all equipment required to provide a complete system and in accordance with the requirements specified herein.
- All shipping, crating, and rigging costs associated with the transport and delivery of the equipment specified herein.
- Complete documentation and organization of all technical data which applies to the operation, maintenance, repair and testing of the specific equipment.
- Installation in our facility of the specified equipment with the features identified in this specification. This includes connection of the equipment to required available utilities, with the electrical source coming from a substation, located above the shop.
- Removal and disposal of two existing ovens (and un-necessary exhaust ducting)

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

- Design (by a Professional Engineer/ Ducting Engineer) and installation of independent exhaust systems (one system for each oven), utilizing the existing exhausting ducting (that is in excellent shape and meets current
- codes)
- Provide training to personnel on the proper operation and maintenance of the installed equipment and its component parts.

3.1.2 **WORK NOT INCLUDED** - The government/receiving activity will provide:

- Air, electrical and other utilities services as required for the proper operation of the equipment unless otherwise stated herein.

3.3 **CONDITIONS OF SERVICE AND PERFORMANCE** - The following service and operational conditions shall apply to the equipment delivered under this specification.

3.3.1 **Machine Access/Height Restrictions** - The proposed system shall be installed in an industrial manufacturing building shop area having limited doorway access space and ceiling bridge crane height limitations. The proposed equipment shall fit through the following shop doorway entrance dimensions, and meet shop ceiling bridge crane height restriction:

- Maximum Doorway Overall System Width: 9'
- Maximum Doorway Overall System Length: 9' 9"
- Maximum Shop Ceiling Height Restriction: 11' 6"

3.3.2 **Electrical** – Each oven shall not require more than 60 AMPS (48 Amps computed FLA) of 480 VAC, 3-phase, 60 Hz electrical power, in its fully configured and operational state. Installation may require a step-down transform (to be provided and installed by the contractor)

3.3.3 **Compressed Air** - Compressed air available for air-actuated mechanisms is 90 pounds per square inch gage and 100 cubic feet per minute (nominal). If the proposed system requires more air than indicated above, the excess capacity shall be provided as part of the equipment. Any proposed compressed air system shall include a regulator(s) and a filter(s) with an automatic drain.

3.4 **HAZARDOUS MATERIAL CONTROL** shall include the following:

3.4.1 The Contractor shall submit a Contractor Hazardous Material Inventory Log to NBK Environmental that lists all hazardous materials being used on the installation for the project and an estimated quantity of each amount being used. The CHMI shall be accompanied by all relevant SDSs. Once approved by NBK Environmental, the hazardous material is authorized for use on the installation. The contractor must keep the CHMI and associated SDSs with them onsite where the work is being performed. All containers of hazardous material shall be resealed, placed in a secure area while on base, and transported off base for reuse of material at other contractor projects.

CHMI Log can be found at the following link:

https://www.wbdg.org/FFC/NAVGRAPH/01%2057%2019_hazardous_material_inventory_log.pdf

In addition to the materials (for example, paints, lacquers, thinners, adhesives, sealants, cleaners) required in the Contractor Hazardous Material Inventory Log, include the following materials:

3.4.2 Contractor shall not use Hazardous Material (HM) composed of any of the following chemicals or substances: Leads, chromium, mercury, phenols, trichloroethylene, chlorofluorocarbons, halon, PCBs, asbestos, silica sand (for use as blasting agent), Class I and II Ozone Depleting Substances (ODS), radioactive materials or instruments capable of producing ionizing radiation, and chemicals listed in 40 CFR 355.50 Appendix B.

3.4.3 **Hazardous Waste Control** shall include the following:

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

3.4.3.1 The government shall determine if waste is hazardous or non-hazardous. A WIS will be completed for each hazardous waste prior to start of work.

3.4.3.2 A trained individual from the government shop with a current Waste Originator certification must be present for each shift that hazardous waste is produced.

3.4.3.3 Disposal Of Hazardous Waste – TRF, Bangor Site is the owner of all hazardous waste generated within its facilities. This includes hazardous waste generated by contractor personnel while working at TRIDENT Refit Facility. All hazardous waste generated by this contract shall be turned over to the activity for disposal prior to the end of the work shift. The shop shall submit completed NBK Bangor Waste Information Specification (WIS) forms for all hazardous waste expected to be encountered during the course of this project (prior to the start of work). The BEO will provide final waste designation along with WIS instructions. If additional wastes are produced after this plan is approved, waste is encountered that was not identified, or changes occur to waste streams that have already been assigned a WIS number, a new or updated WIS for each waste stream must be submitted to the BEO for designation.

3.4.3.4 A hazardous waste label must be affixed to the appropriate container upon the first addition of waste. If more than 55 gallons of Dangerous Waste (DW) or 1 quart of Extremely Hazardous Waste (EHW) is produced, the date must be filled in on the label. All containers must be under the control of the shop and located in the same area the waste is generated.

3.5 GENERAL EQUIPMENT REQUIREMENTS:

3.5.1 **Standard, Off The Shelf Components** - All materials and parts comprising the system shall be new, of current design and manufacture, and shall not have been in prior service except as required for factory testing. Standard, off the shelf components with proven reliability shall be used wherever possible to increase performance reliability and reduce costs. The system components shall be one of the manufacturer's current production models which, on the day this solicitation is issued, has been designed, engineered and sold, or is being offered for sale through advertisements or manufacturer's published catalogs or brochures. System components such as a prototype unit, pre-production model, or experimental unit DO NOT qualify as meeting this requirement. The system shall be complete, so that when connected to the utilities identified herein, it can be used for the function for which it is designed and constructed.

3.5.2 **Painting** - All surfaces shall be painted in conformance with the manufacturer's standard practices and good workmanship. Painting shall result in a highly wear-resistant finish, which guarantees continued protection to the surfaces covered against the specified environment under all service conditions. The manufacturer's standard color shall be provided. **Lead base or chromium base paints are prohibited.**

3.5.3 **Caution - Warning Plates** - Corrosion resistant "Caution" or "Warning" plates shall be securely attached to system components in visible locations, with any safety precautions to be observed by the operator or maintenance personnel permanently marked on the plates.

3.5.4 **Identification Plate** - An identification plate shall be furnished with the system. A nameplate shall be affixed to each major component of the system showing the manufacturer's name, equipment model, year of manufacture, and any other pertinent information for identifying the part as a unique component of the system.

3.5.5 **Emergency Stop Button** - The equipment specified herein shall each be provided with an emergency stop button at the operator's station. This stop button shall be the mushroom type, shall be colored red, and shall be labeled as such. When activated, the emergency stop button shall disconnect all electrical power to the equipment such that the all operations or functions will immediately stop or cease.

3.5.6 All **Electrical Components** including motors, starters, relays, switches, and wiring shall conform to and be located in accordance with the applicable NFPA, NEMA, and ANSI standards for the intended application.

3.5.6.1 **Motors** - Motors (if required) shall be rated for continuous duty. Motors shall be equipped with ball bearings of the sealed and permanently lubricated type. All electrical motors shall meet NEMA-MG1 requirements.

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

3.5.6.2 **Power Disconnect Box** - A new lockable power disconnect box (that can be locked out with a lock utilizing a key), shall be provided and installed on each oven. The disconnect box shall have a proper sized fused device (i.e. following the NEC, etc.), that shall protect the machine from a power surge, etc. The contactor shall mark the disconnect box with a "fed from power panel" identification label and mark the power panel schedule with a "fed to" identification label.

3.5.7 **Asbestos** – No asbestos products/materials shall be used in any components (i.e. gaskets, etc.) of the equipment. The equipment shall be asbestos free.

3.5.8 **New Developments** - The contractor shall identify any new developments that would improve the efficiency, accuracy or productivity of the equipment or would decrease its operating costs. The contractor shall notify the Contracting Officer and technical POC in order that the new developments may, at the Government's option, be included in the equipment. Reports of such developments shall be addressed to the Contracting Officer.

3.6 **EQUIPMENT TO BE PROVIDED – Each Process Oven (Qty: 2) Grieve, Model #WRC6106-500 brand or equal** shall meet the following minimum/equal features:

3.6.1 Oven shall be designed to allow use of the following material (being processed for solvent curing): "precatalyzed polyester impregnating resin PH21 esterlite 605". For more information on this material including the SDS is found at <https://www.eis-inc.com/product/precatalyzed-polyester-impregnating-resin-ph21-esterlite-605>

3.6.2 Walk-in 500 degree process oven.

3.6.3 The oven must be a fully tested unit ready to put into operation as soon as installation is completed.

3.6.4 It must have sufficient heat input capacity and must include Incoloy sheathed tubular heating elements to provide short preheat and process times and to offset the heat lost by the 650 CFM exhauster installed. The heating element terminals must extend through the oven wall so that no wiring is exposed to oven temperatures.

3.6.5 Double, side hinged doors are required on the oven front and the heat chamber must be located at the rear of the oven for easy maintenance. The oven must have minimum 6" of insulation throughout walls, doors, and ceiling and not less than a 2" thick insulated floor with loading truck wheel guide tracks. Oven must be constructed from heavy gauge sheet metal, reinforced with structural steel and integrally welded together.

3.6.3 Space will approximate overall dimensions: 102" wide (plus 9" control panel overhang at the right side) x 162" deep (plus 26" motor mount overhang at the rear) x 93" high (plus 24" for exhauster installed on top of oven)

3.6.4 Clear inside workspace dimensions of 72" wide x 108" deep x 78" high to accommodate the 92" long shaft, 38" diameter armature on the stand

3.6.5 Insulated floor with one set of factory floor level truck wheel guide tracks 10,000 CFM recirculated air flow driven by 7 ½ HP electric motor

3.6.6 Necessary safety equipment for processing up to 0.5 gallons of flammable solvent with an LFL of 2640 SCF/gallon or less per batch at temperature up to 500 degree F including:

3.6.6.1 650 CFM powered forced exhauster with air flow safety switch

3.6.6.2 Additional Flammable rated booster fan as required for the ducting should be provided during installation and is not included in the price of the oven Purge Timer 120 kW total heat input for compensation for exhauster heat loss Must electrically and mechanically comply with OSHA, the National Fire Protection Association Standard 86 for ovens and furnaces, Industrial Risk Insurers and Factory Mutual when flammable solvents will not be processed. In addition, this equipment must include a NRTL/UL listed control panel carrying a UL label.

3.6.7 Must include following disconnect switch that will be a circuit breaker through the door disconnect mounted in the control panel door.

3.6.8 Oven requires a current output temperature controller and an SCR power controller. These must be fully solid state, rugged industrial electrical controls to insure precise proportioning of the electric power to the heating elements.

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

3.6.9 Oven temperature must be maintained smoothly and evenly over the entire temperature range since heat is called for only at the exact rate of use. Maintenance needs to be minimized since the power controller should not contain moving parts or contacts. Heating element life needs to be extended since they seldom run at their maximum temperature and are not allowed to cool down before the next electric power release. The above controller must be a digital programming temperature controller. Controller must include a temperature recorder Honeywell DR4300 circular.

3.6.10 Construction should be not less than 6" of 6 lb density industrial mineral wool insulation throughout walls, doors, and ceiling. 1/8" steel plate outer oven bottom with 2" of insulation covered by a 1/8" steel plate to form oven floor. Factory floor level truck wheel guide tracks.

3.6.11 Requires not less than 10,000 CFM heavy duty high pressure steel recirculating blower with at least a 7.5 HP motor, ball bearing pillow blocks guard and adjustable louvers over entire area of supply and return duct work within work chamber to insure maximum temperature uniformity arranged for combination horizontal and vertical air flow.

3.6.12 Doors must be double side-hinged, full opening, swinging doors on the 72" wide x 78" high oven front work space opening. Reinforced internally with structural iron, hung from heavy steel hinges, fitted with positive resilient heat seals and equipped with explosion venting latches.

3.6.13 Ventilation shall be 6" diameter exhaust outlet with blast gate damper to adjust exhaust flow of fresh air inlet to provide make-up air to offset exhaust loss, with adjustable damper to balance internal oven pressure make-up air introduced into recirculated air stream and thoroughly mixed before entering work space to avoid temperature variations.

3.6.14 Finish shall have interior and exterior fabricated of aluminized steel with carbon steel structural members, structurally reinforced and integrally welded throughout. Exterior surfaces prepared for firm paint bond and finished with durable Trilite machinery enamel. Control panel face fabricated from #4 brushed finish 304 stainless steel.

3.6.15 Electrical shall include NEMA 1 electrical construction using thin wall conduit. Control wiring numbered and terminating at numbered terminals within control panel, UL labeled ventilated control panel with oil tight push buttons and LED pilot.

3.6.16 Code compliance shall include:

3.6.16.1 OSHA standards.

3.6.16.2 National Fire Protection Standard 86 for Ovens and Furnaces.

3.6.16.3 Industrial Risk Insurers.

3.6.16.4 Factory Mutual.

3.6.16.5 National Electric Code (NFPA 70).

3.6.16.6 Underwriter's Laboratory Industrial Control Panels UL 508A.

3.6.17 Safety equipment shall include those items required by OSHA, NFPA 86, IRI and FM for electrically heated ovens whose work load will contain flammable solvents:

3.6.17.1 Adjustable, thermocouple actuated, manual reset excess temperature interlock.

3.6.17.2 Separate heating element control contactors for the manual reset excess temperature interlock described above, that shall shut heat down on excess temperature interlock actuation and in the event of failure of the main temperature control contactors for any reason.

3.6.17.3 650 CFM heavy duty, high pressure, steel powered forced exhauster direct driven by a ½ HP electric motor, exhauster to be dampened to provide safety ventilation for up to 0.5 gallons of flammable solvent per batch at up to 500 degrees F.

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

- 3.6.17.4 Powered exhauster air flow safety switch, which shall shut heat down on exhauster failure.
- 3.6.17.5 Recirculating blower air flow safety switch, which shall shut heat down on recirculating blower failure.
- 3.6.17.6 Purge timer to provide time delay of sufficient duration to exhaust four volumes prior to turning on heat.
- 3.6.18 Control panel shall be UL labeled control panel, with 5kA short circuit current rating (SCCR), fully wired and mounted on right of the oven, enclosing the following items:
 - 3.6.18.1 Digital indicating temperature controller with accuracy of +/-0.1%.
 - 3.6.18.2 LED pilot lights to indicate when blower, exhauster and heaters are energized.
 - 3.6.18.3 Motor starter and heating element contactors electrically interlocked to shut off heaters if power to the recirculating blower or exhauster is interrupted and to permit operation of blower and exhauster without heat for purging or cooling.
 - 3.6.18.4 460/115 volt control circuit transformer.
 - 3.6.18.5 On/off heat switch and main control pushbuttons.
- 3.6.19 Testing and Quality Control (after the oven is completely assembled) shall include:
 - 3.6.19.1 Electrical inspection.
 - 3.6.19.2 Dynamic in-place blower balancing.
 - 3.6.19.3 Air circulation adjustment.
 - 3.6.19.4 Balancing of fresh air and exhaust rates.
 - 3.6.19.5 Calibration check of main temperature controllers and excess temperature interlock.
 - 3.6.19.6 10-point temperature uniformity check.
 - 3.6.19.7 Operation at maximum operating temperature.
 - 3.6.19.8 Operation of all safety interlocks and auxiliary equipment
- 3.6.20 Quality inspection shall include:
 - 3.6.20.1 Comparison of equipment with order specifications.
 - 3.6.20.2 Verification of test documentation.
 - 3.6.20.3 UL control panel inspection and labeling.
 - 3.6.20.4 Quality fit and finish inspection.
- 3.7 **CONTRACTOR DEMOLITION/REMOVAL SERVICES TO BE PROVIDED** - The specified existing two process curing ovens (one natural gas and the other electrical), and all associated equipment shall be demolished/removed by the contractor, from the current area(s) designated for this equipment by the Receiving Activity Point of Contact. The contractor shall provide all personnel, and supplies necessary for the complete demolition/removal of the existing system (except as noted elsewhere in this specifications).
 - 3.7.1 The contractor shall provide credit in the solicitation bid for system components that have a trade-in value. The contractor shall provide pallets, and strap/band the equipment to these pallets, and remove these items outside the building, for disposal by the contractor.
 - 3.7.2 The contractor shall demolish the existing duct within the shop, to be replaced with stainless steel ducting (that will cover any chemical the shop is using). The contractor shall provide pallets, and strap/band the equipment to these pallets, and remove these items outside the building, for disposal by the contractor.
 - 3.7.3 The contractor shall demolish the existing rooftop booster fan.

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

3.7.4 Demolition/removal includes proper disconnection/capping of existing utilities (i.e. electrical water, natural gas, exhaust system, etc.), and all other items required to remove the existing ovens and associated equipment.

3.7.5 The contractor shall properly dispose (via recycling if possible) existing non-hazardous demolition materials.

3.7.6 The contractor shall properly patch the flooring of equipment that had been mounted to the floor.

3.7.7 The government shall determine if waste is hazardous or non-hazardous. A WIS will be completed for each hazardous waste prior to start of work.

3.7.7.1 Demolition Hazardous Waste Disposal - Please see Section 3.4.3.3.

3.7.7.2 Demolition Non-Hazardous Waste Disposal - The contractor shall properly be responsible for and dispose of all non-hazardous waste products produced during the removal/installation of contractor provided services for this project.

3.8 CONTRACTOR INSTALLATION, SET-UP, TESTING AND BALANCING SERVICES TO BE PROVIDED - The specified equipment and all associated equipment shall be assembled, installed, set-up and tested by the contractor in the area(s) designated as its functional work area by the Receiving Activity Point of Contact. The contractor shall provide all personnel, and supplies necessary for the complete installation and set-up of the proposed system (except as noted elsewhere in this specifications).

3.8.1 Installation of the new equipment includes connecting available utilities (i.e. power, water, exhaust, etc.), and other work required to properly install the equipment. This includes running proper sized conduit (or use an existing conduit) and wiring, from an existing power panel, to the new ovens locations. If required, this includes providing and installing a new appropriately sized breaker(s), as well as removing an existing breaker(s) and/or power panel blanks(s). Utilities installation shall include the contractor requesting each necessary utility outage(s). Existing wiring, breakers, etc. may be re-utilized (if in proper condition). The contractor shall complete and submit an outage request form (for each utility outage), and pay a nominal outage fee (for each outage) to the local Base Operating Services Contractor (BOSC) (who will secure/re-energize the utility source). The contractor shall coordinate all outages with the BOSC.

3.8.1.1 Electrical installation for both ovens shall be “complete and usable”, running from the second floor substation, using reusable electrical components, to the shop oven installation area and shall include such items as:

3.8.1.1.1 Install an electrical distribution panel using an existing 480 VAC, 3 phase, 600 Amp circuit (that runs from the second floor substation).

3.8.1.1.2 Install 200 amp, 480 VAC, 3 phase, 3-wire circuits to each new oven

3.8.1.1.3 Install oven control panel(s) and exhaust fan wiring as required

3.8.1.1.4 Install electrical conduit and wiring to exhaust booster as required

3.8.2 Installation of stainless steel ducting that is compliant with SMACNA standards. The duct (within the shop) shall be insulated, to prevent condensation of flammable vapors within the ducting.

3.8.3 Modify existing booster fan roof penetration as necessary for new duct attachment.

3.8.4 Install two (2) booster fans (one (1) for each oven). Fans shall be rated to 500 degrees minimum and rated for use with flammable solvents.

3.8.5 Installation also includes properly mounting the equipment to the existing concrete pad (with anchor bolts).

3.8.6 Provide a proposed layout drawing of the equipment to the Receiving Activity Point of Contact (and receive approval of the layout drawing) prior to the manufacture of the equipment and installation.

3.8.7 The contractor shall test and balance the exhaust ducting to ensure air flows are within the manufacturers and design engineer’s tolerances. This shall include measuring the air exhaust from the top of the exhaust stacks located on the roof, using a minimal 180 ft boom lift.

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

3.8.7 **Coordination** - The Contractor shall contact the Receiving Activity Point of Contact with a proposed installation schedule (at least one week before the installation starts). The installation schedule shall be reviewed and approved of the Receiving Activity Point of Contact. The Contractor shall coordinate the site preparation and the delivery of the equipment/materials in a manner which causes minimum disruption/interference with the activity's normal business routine.

3.8.8 **Lifting And Rigger Services** - The contractor shall provide all material handling equipment necessary to unload the specified equipment, transport it to the installation site and any other equipment (such as forklifts, man-lifts, etc.) necessary for continuous support of the removal, transportation and installation of the specified equipment, and shall provide qualified personnel to operate it by the contractor. No cranes shall be used (or forklifts used as a crane).

3.8.9 **Crane/Weight Handling Equipment (When Used as a Crane) Services** - All weight handling evolutions where a load is suspended from any type of weight handling equipment shall conform to the requirements of NAVFAC P-307 (June 2016) Management of Weight Handling Equipment. Applicable sections of P-307 include "Contractor Operated Cranes", "Operator Licensing", "Rigging Gear and Miscellaneous Equipment", and "Appendix P – Contractor Crane (or Alternate Machine Used To Lift Suspended Load) and Rigging Gear Requirements". The contractor shall prepare the "Certificate of Compliance" and the "Contractor Crane or Rigging Operation Checklist" in P-307 Appendix P. Each lift shall require the submission of a Lift Plan, and approved by the receiving activity's weight handling engineering department. The Lift Plan shall meet the requirements listed in the NAVFAC P-307. Additional site specific requirements may be found in the attachments to this document.

3.8.10 **Contractor Site Visit** - The contractor shall make a site visit to the facility prior to submitting a bid. This shall include viewing the existing facility, utilities, etc. The contractor shall have a complete understanding of the requirements for the installation of the specified equipment (prior to bidding on this project).

3.8.11 **Installation Hazardous Waste Disposal** - See Section 3.4.3.3.

3.8.12 **Installation Non-Hazardous Waste Disposal** - The contractor shall properly be responsible for and dispose of all non-hazardous waste products produced during the removal/installation of contractor provided services for this project.

3.9 **INSTALLATION SUPPORT SERVICES PROVIDED BY THE GOVERNMENT** - The activity will provide the following in support of the installation:

3.9.1 **Receiving Activity Point Of Contact** - Upon contract award, the receiving activity (TRIDENT Refit Facility, Bangor) shall designate a Receiving Activity Point of Contact who shall be responsible for appropriate surveillance and coordination of all services to be performed under this contract. The Receiving Activity Point of Contact shall serve as the contractor's primary contact for all interaction with government activities.

3.9.2 **Utilities** - Reasonable amounts of water, shop air (80-90 psi) and electricity shall be made available adjacent (within 50 feet) to the assembly site at no cost to the contractor (for temporary use during the installation of the specified equipment). The Contractor shall be responsible for any costs incurred in connecting, converting and transferring the utilities to the work site.

3.9.3 **Storage** - Lay-down area will be provided within the vicinity of installation site for storage of Contractor materials and tools. The government does not accept responsibility for security of Contractor's materials or tools. The area must be kept clean and orderly, free of rags, paper and other debris. Failure to maintain area in a clean condition may result in the loss of the area. The Contractor shall be responsible to restore the storage area to original condition after use.

3.9.4 **Start-Up Supplies** – The Receiving Activity (IMF Bangor) will provide necessary for the proper operation of the specified equipment.

3.9 **ON-SITE COMMISSIONING AND PERSONNEL TRAINING SERVICES TO BE PROVIDED** - Within five (5) working days after satisfactory completion of acceptance testing of the system, the services of a qualified representative(s) shall be provided for commissioning and specialized training to familiarize receiving activity personnel with the equipment and to help ensure reliable performance and maximum service life, during

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

normal usage. All commissioning and training shall be provided by a factory authorized distributor. Training services shall be rendered at TRF, Bangor. Training shall be scheduled by mutual agreement between the Contractor and the Receiving Activity Point of Contact. Two (2) weeks prior to the start of any training, the contractor shall provide a course outline for government review and comment. Training sessions shall be provided separately for each group/type of government personnel. The contractor shall provide all training manuals and guides. The government shall provide classroom space in close proximity to the equipment/shop (if needed). The entire contractor cost of providing the training (including travel, per diem, etc.) shall be covered by this contract. The training shall apply to personnel as follows:

3.9.1 **Commissioning and Training of Operator Personnel** – Commissioning and training shall be provided for personnel for a total period of approximately 3.5 days. This commissioning and training shall include preparation of equipment for operation and actual, safe operation of the equipment.

3.9.2 **Maintenance Personnel (Mechanical/Pneumatic)** - Training shall be provided for personnel at a journeyman mechanic level for a period of approximately .25 day. This training shall include trouble-shooting and methods of correction if the equipment malfunctions, with particular emphasis on minimizing equipment down time.

3.9.3 **Maintenance Personnel (Electrical/Electronic)** - Training shall be provided for personnel at a journeyman mechanic level for period of approximately .25 day. This training, with respect to equipment/controls/drives/interface units and related components, shall include trouble-shooting and methods of correction should equipment malfunction, with emphasis on minimizing equipment down time

3.10 **TECHNICAL DATA TO BE PROVIDED**

3.10.1 **Operator / Maintenance / Repair Manuals** - The equipment shall be furnished with two (2) hard copies of the manufacturer's standard Operation, Maintenance, and Repair Manual(s), bound in durable three ring binder(s). The manuals shall include all mechanical and electrical schematics showing discrete components/block diagrams/wiring diagrams with inputs and outputs identified/system electrical interface documents and drawings for the specific model of all machine equipment/drives/controls supplied. The information contained in the manual(s) shall reflect the unit and its components in the "as built" configuration. The information contained in the manual(s) shall be adequate to permit trouble shooting and repair of the equipment by journeymen level personnel. The information contained in the manual(s) shall be in the English language. The information contained in the manual(s) shall be in imperial units of measure. The vendor shall provide a "no asbestos used" statement, certifying that all products/materials (i.e. gaskets, etc.) used in the components of the equipment does not contain asbestos, as outlined in paragraph 3.5.7. The contractor shall provide a list of recommended consumable spare parts and possible sources for procurement.

3.10.2 **NRTL Certification Report** - As outlined in paragraph 2.2.1

3.10.3 **Contractor Provided Design** - The designated process ovens and exhaust ducting system shall be designed by a qualified engineer (for both ovens), and shall meet all current code requirements (and include the requirements outlined in the specification for this project). It shall be designed to operate in a non-air conditioned manufacturing building in an industrial environment. The design drawings and calculations shall have sufficient details for proper evaluation by the government. Allow for 14 calendar days for review by the government of the submittal. No fabrication or manufacturing shall commence until the design is approved and comments addressed.

3.10.4 **Warranty Statement** – As outlined in paragraph 3.11

3.11 **WARRANTY** - Supplies and services furnished shall be covered by warranty from defects in design, materials and workmanship. The warranty shall be the manufacturer's standard commercial warranty, which shall conform to all the requirements of the contract. Acceptance of the manufacturer's standard commercial warranty shall not minimize the rights of the government under clauses in the contract, and in any conflict that arises between the terms and conditions of the contract and manufacturer's warranty, the terms and conditions of the contract shall take precedence. The warranty period shall commence from the date of acceptance. All warranty work shall be provided by a factory authorized distributor.

4 **QUALITY ASSURANCE PROVISIONS**

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

4.1 **RESPONSIBILITY FOR INSPECTION** - The Contractor shall be responsible for the performance of all inspection requirements (examinations and tests) as specified herein. The government reserves the right to perform any of the inspections set forth in this specification, where such inspections are deemed necessary to assure supplies and services conform to the prescribed requirements.

4.2 **RESPONSIBILITY FOR COMPLIANCE** - All items shall meet all requirements of this specification. The inspection(s) set forth in this specification shall become part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the government for acceptance comply with all requirements of the contract. Sampling inspections, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements; however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the government to accept defective material.

4.3 **INSPECTION/TESTING AT ORIGIN** - Basic performance tests (prior to shipment) shall be conducted by the manufacturer on the primary equipment and all associated equipment to the extent practicable, to demonstrate functionality, to ensure contract requirements are being met. The tests may be performed by the contractor, either by personnel of their service organization directly, or by an independent testing agency. The contractor shall contact the government a minimum of two (2) weeks (NOTE: Longer on complex projects) before the completion of the manufacturing of the specified equipment. This shall allow the government the option of sending their technical representative(s) to witness the tests, and to ensure contract requirements are being met, prior to shipment of the unit to the government.

4.4 **INSPECTION/TESTING AT DESTINATION**

4.4.1 **Initial Test And Grooming** - The equipment delivered with the system shall be inspected by the government for mechanical and electrical integrity as follows: All welds shall be inspected for integrity and appearance. Surfaces shall be examined for sharp edges and burrs. Fasteners shall be checked for tightness and if fixed to prevent loosening due to vibration. Paint will be checked for flaking and blistering. Electrical requirements shall be examined for compliance to the National Electrical Code, (NFPA 70/79). The fit of parts shall be observed, with particular reference to the interchangeability of those that are likely to require replacement. Faults will be duly recorded and presented to the contractor for rectification.

4.4.2 **Operational Tests** - Upon satisfactory completion of the tests above, the equipment shall be set up for an operational test and evaluation. The contractor shall demonstrate the ability of the equipment to perform as required in this specification. All equipment functions shall be exercised to the extent necessary to prove proper operation in accordance with specification requirements. The system shall function, without failure, for the duration of this test period. If a failure occurs during the test period, repairs shall be immediately affected by the Contractor, and the tests shall be restarted from the first test. Three failures without completion of the test period shall be considered cause for rejection of the system. For the purpose of this test, a "failure" is defined as any equipment malfunction, which requires remedial action to restore the system to full operation in accordance with contract specifications.

4.5 **PROVISIONS FOR REPAIR AND RETEST** - In the event of a test failure, the contractor, at their discretion, may elect to correct the failed condition and request a retest of the system (vs. shipping the equipment back to the manufacturer for repairs).

4.6 **FINAL ACCEPTANCE** - Final acceptance shall be upon satisfactory completion of installation, inspection and testing of the system (as outlined in this specification).

5 **DELIVERY**

5.1 It is required that all equipment, goods and services (including final acceptance outlined in paragraph 4.6) identified in this specification, shall be completed prior to 180 days post contract award.

5.2 The Receiving Activity Officer shall be notified no less than one week prior to the arrival at the site of the specified equipment and/or contractor personnel.

5.3 Material transportation from the manufacturer's facility to the work site shall be the responsibility of the contractor. Limited secured storage areas at the facility will not permit the government to store material for

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

extended periods of time. Early shipment of materials, without the permission of the receiving activity shall be refused.

5.4 **Packing Material** - The use of shredded paper, whether newspaper, office scrap, computer sheets, or wax paper, in packing material for shipment to Navy activities, is prohibited.

5.5 It is the government's intent that the Contractor delivers a fully operational and functional system meeting the requirements stated herein prior to acceptance by the receiving activity and final payment by the government. Delivery of this system shall occur when all deliverable items of this contract have been received, installed and made operational **and** the contractor has demonstrated and the receiving activity has confirmed that the system meets or exceeds the requirements set forth in this specification and is ready for government use.

6 GENERAL NOTES

6.1 **RESPONSE TO REQUEST** - As a part of the response to this request, descriptive literature shall be furnished in sufficient detail to show that the proposed design will meet these specifications. Vendor submittals shall include brochures of the model being submitted, assembly sketches with critical dimensions, sketches (with dimensions) of all tooling provided, statements of compliance with specification, and performance statements with special attention to the key performance criteria stated herein.

6.2 ADMITTANCE TO THE WORK SITE:

6.2.1 Upon contract award, employees or representatives of the Contractor who require access to the Receiving Activity's facility at Naval Base Kitsap, Bangor (NBK, Bangor) shall be admitted to the work site only after they have been issued an appropriate Naval Region NW visitor security badge which is obtained at NBK, Bangor Pass & ID Office (located outside the NBK, Bangor Trident/ Main Gate).

6.2.2 Navy Region NW badge is required to gain access through the Operational Area Gate, or Waterfront Restricted Area, and is obtained through the on-line Base Authorization and Visit Request (BAVR) computer system. The prime contractor will need to submit all badge requests for their personal and for sub-contractor personnel. To request a Navy Region NW badge, use Internet Explorer or Microsoft Edge browsers, and go on line to "https://www.bavr.cnmc.navy.mil, and submit a request for a badge, a minimum of five (5) business days prior to arrival. All requested information highlighted in red is mandatory. Type N/A for "Driver's License Information". The "Command you are visiting" is: "Trident Refit Facility (TRF)". The "Company Name or Command" and "Work Phone" is your company/command information. The "Originating Command Security Officer Information" should be left blank. The "Sponsor E-Mail" for an on-line badge should be dana.s.spangler@navy.mil (Dana Spangler, 360-689-8791). In the "Purpose of Visit" box, please explain in detail the purpose of your visit, and include the Contract Number, the Receiving Activity Point of Contact (name and telephone number) and ALL the buildings/areas/piers you are visiting. The "Start Date" is the day you expect to pick up your badge (you cannot pick it up early, even if approvals are completed). The "End Date" is the last date of your visit. Also send a copy of the contract (or contract modification if the delivery date has been changed) to Dana Spangler at the e-mail address listed above. You will be notified at the e-mail address you provided, when all approvals have been completed. If BAVR doesn't work contact the Receiving Activity Point of Contact or our security manager, Dana Spangler, 360-689-8791 to schedule a visit(s), and shall provide the following information:

- * Full Legal Name
- * US Citizen Status
- * All Company Contact Information
- * Contract Number

6.2.3 Visitors must show proof of US Citizenship (at the NBK Bangor Pass & ID Office, located outside Bangor's Main Gate (Trident Boulevard), by having an original active US Passport, an "Enhanced Driver's License", or an unlamented official birth certificate.

6.2.4 Truck delivery personnel only need to show their Bill of Lading and show proof of US Citizenship (at the NBK Bangor Pass & ID Office) by having an original active US Passport, Enhanced Driver's License, or an

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

unlamented official birth certificate. All deliveries must pass through the base Truck Inspection Station. All delivery vehicles are subject to inspection. Drivers should expect delays due to heightened security.

6.2.5 Contractor's vehicles requiring NBK Bangor Delta Pier/Waterfront Restricted Area access shall provide the following data to the Receiving Activity Point of Contact, who shall request a Strategic Weapons Facility, Pacific (SWFPAC) Delta Pier vehicle permit. These permits are issued by SWFPAC and are picked up (by the contractor) at the SWFPAC Pass & ID building (located next to the NBK Bangor Pass & ID Office, located outside Bangor's Main Gate (Trident Boulevard))

* Company Name (must match the vehicle's registration):

* Vehicle Make:

* Vehicle Model:

* Vehicle Year:

* License Plate #:

* License Plate Issue State:

* Access Start/End Dates:

6.2.6 Notice: Persons who are currently on probation or parole from a felony conviction cannot qualify for security clearances, and will be denied access to the activity.

6.2.7 It shall be the Contractor's responsibility to collect, account for all identification passes issued to their personnel at the expiration of the contract or when access is no longer required. All NBK Bangor Pass & ID Office issued badges and identification passes must be returned back to the NBK Bangor Pass & ID Office no later than the expiration date.

6.2.8 Foreign Nationals or Affiliations - Foreign Nationals (non-U.S. Citizens) or persons affiliated with, or employed by, a foreign, or foreign owned company will not be granted access without proper NBK Bangor Commanding Officer's written approval. Please note that All NBK Bangor Command Foreign Nationals or Affiliations visit request must be submitted sixty (60) days prior to a requested visit date.

6.2.9 Identification. All Contractors shall clearly identify themselves as contractor personnel.

6.3 RESTRICTIONS:

6.3.1 **Parking** - Vehicles and equipment required by the Contractor to complete this contract must be registered with Security. Forms for obtaining vehicle passes and permits may be obtained from the Receiving Activity Point of Contact. Parking is available at or near the work site or at other authorized areas on the station. Contractor vehicles must be marked on the outside with the company name or logo or both. Failure to comply will result in ticketing and/or loss of vehicle privileges.

6.3.2 **Regular Working Hours** - All work is to be performed during TRF, Bangor's regular work hours from 6:30 a.m. to 3:00 p.m., Monday through Friday except for Federal Holidays. If the Contractor desires to work on Saturdays, Sundays, holidays, or outside the regular or specified hours/days, the Contractor shall submit a request to the Receiving Activity Point of Contact, for approval a minimum of two (2) working days prior to the anticipated work date. In no event shall a Contractor carry on work outside the hours and days specified in the contract without prior approval.

6.3.3 **Restricted Colors** - TRF, Bangor uses the colors magenta and yellow to identify specially controlled materials. The Contractor is specifically prohibited from using magenta and yellow colored plastic wrapping materials or bags, tape, or other covering materials.

6.3.4 **Radio Restrictions** - Operation of privately owned citizens band or amateur radio equipment (receive and transmit) within the geographic limits of the activity is prohibited. All radio equipment installed in privately owned motor vehicles must be turned off upon entering the premises.

6.3.5 **Contractor Electronic Devices** - Use of such devices, including cell phones, and computers shall not be capable of photography or digital recording by contractor personnel at TRF, Bangor is restricted. This includes personally owned Portable Electronic Devices (PEDs) that are used for storing data, including but not limited to removable storage devices (e.g. memory sticks rewriteable CDs and DVDs, Zip and floppy disks). Contractors

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

requiring such devices in the performance of this contract shall have the equipment inspected and approved by the PSNS & IMF Information Assurance office, located in Bremerton, WA. If this equipment is needed, it must comply with the photography regulations. Please contact Receiving Activity Point of Contact to make a request. Please allow at least 5 business days for required electronic devices to be approved.

6.3.6 **Photography/Recording** - Contractor personnel are prohibited from having personal reproduction equipment of any kind, including but not limited to photocopying, copying, and/or recording devices. This includes photographic equipment, tape recorders, or other recording devices in their possession while inside the Operations Area (OA). Contractors requiring the use of photographic equipment in TRF, Bangor spaces must request authorization through the TRF, Bangor security office. Please contact the Receiving Activity Point of Contact to make a request.

6.3.7 **Prohibited Items** - The items listed below are prohibited (and includes any other item, which the possession of is prohibited by Federal, State or municipal law, Department of Defense or Department of Navy instruction directive or policy).

6.3.7.1 Weapons or other dangerous materials of any kind, including but not limited to firearms, ammunition, knives (blades longer than 3-inches), explosives, incendiaries, personal defense aerosols/sprays.

6.3.7.2 Alcoholic Beverages of any kind and illegal to include marijuana.

7 PERSONAL HEALTH AND SAFETY

7.1 The Contractor shall provide their employees with all necessary safety equipment during the performance of work on this contract, and ensure their employees follow safe work practices. All contractor personnel shall have in their possession and shall properly wear OSHA approved personnel protective safety equipment (PPE) (i.e. hard-hats, safety shoes, safety glasses with permanently attached side shields, face protection and hearing protection; In addition, any special PPE required for the task or process, including the required training for the particular PPE). The Contractor shall provide all appropriate safety barricades, signs, and signal lights required to properly isolate the area of work.

7.2 All Contractors shall clearly identify themselves as contractor personnel.

7.3 **Medical Treatment.** Government emergency vehicles and medical personnel shall only be used in emergency situations affecting contractor personnel whose life may be in danger or who are seriously injured. Government facilities may be used in these instances as the first point of treatment. Transfer to a non-government medical treatment facility shall be made as soon as possible and as determined by attending medical authorities.

8 WORK SITE INFORMATION

8.1 **Regular Working Hours/Shifts.** Regular working hours is normally 8 hours (6:30 am to 3:00 pm), with a 30-minute lunch break, Monday through Friday. Working hour variations may be requested by contractor personnel, and approved by the Receiving Activity Point of Contact.

8.2 **Holidays and Shutdown Periods.** All shutdown periods, when directed by the Commanding Officer, are normally associated with holidays or inclement weather. Naval Base Kitsap policy is to continue operations during adverse weather. Severe weather may cause an electrical power outage, or snow, ice, or wind conditions may cause the base to remain closed. Other shutdown periods may be declared by Executive Order. Contact the Surveillance Officer regarding severe weather or Executive Order shutdown information. The contractor shall not be required to work during designated shutdown periods. Holidays observed by the contractor shall include all legal holidays observed by the government. These holidays are:

New Year's Day	Labor Day
Martin Luther King Day	Columbus Day
President's Day	Veterans' Day
Memorial Day	Thanksgiving Day

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

Juneteenth National Independence Day Christmas Day
Independence Day

8.3 Overtime is not authorized (unless approved in advance). Overtime is defined as hours worked in excess of the employee's normal workweek. The normal workweek is defined as forty (40) hours.

8.4 Nothing contained in the specifications shall relieve the Contractor from complying with applicable Federal, state, and local laws, codes, ordinances, and regulations, including the obtaining of licenses and permits that may be required for the Contractor or Subcontractor(s) to perform a particular function, such as hazardous waste handling or disposal, for example.

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

ENCLOSURE 1

SAFETY REQUIREMENTS FOR THE TRIDENT REFIT FACILITY (TRF), BANGOR SITE

SCOPE

These specifications provide safety information and procedures required for any work performed at TRIDENT Refit Facility (TRF), Bangor Site. This does not include additional safety requirements from Naval Base Kitsap at Bangor which is the host activity at Bangor.

APPLICABLE DOCUMENTS

The following documents form a part of this specification. Unless otherwise indicated, the issue in effect on the date of a request for proposals or request for quotes shall apply.

National Fire Protection Association (NFPA)

NFPA 54	National Fuel Gas Code
NFPA 70	National Electric Code
NFPA 79	Electrical Standards for Industrial Equipment

Code Of Federal Regulations

29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1915	Occupational Safety and Health Standards for Shipyard Employment
29 CFR 1926	Safety and Health Regulations for Construction

(Application for copies should be addressed to Superintendent of Documents, Government Printing Office, Washington, DC 20402)

Washington State Administration Code (WAC)

WAC 173-60	Maximum Environmental Noise Levels
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I. GENERAL REQUIREMENTS

- a. All documentation/correspondence and/or communication specified in these specifications shall be submitted to the Contracting Officer or their designated Government Representative.
- b. **Mutual Understanding Meeting, Prior to commencing work:** The Contractor shall meet in conference with the Contracting Officer, and other necessary government personnel to discuss and develop mutual understandings regarding administration of the Safety Program, methods and schedules, security, and any other subject necessary for a smooth and successful operation.
- c. **Environmental & Safety Compliance, General Awareness Training, and Regulatory Interface**
 1. Contractors working at the TRF, Bangor are required to perform their work in compliance with all Federal, State, and local regulations pertaining to the environment at all times.
 2. The contractor is responsible for complying with the safety regulatory notices or orders, including payment of any fines attributable to the contractor's conduct, regardless of whether or not the contractor is the name recipient of the notice, order, or fine.
 3. The contractor is responsible to perform all duties and responsibilities for environmental and safety compliance set forth in this contract. The Contracting Officer can use failure to comply with the responsibilities for environmental and safety requirements as a basis for termination for default.
 4. Failure to comply with or repeated violations of local, state, or Federal regulations can result in the violator(s) losing their access to TRF, Bangor or the operation being suspended until the Contractor can provide

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

properly trained personnel. Certification of training shall be presented upon request by the Contracting Officer. The contractors (including its employees) loss of access to TRF, Bangor will not be considered by the Contracting Officer as a basis for an adjustment to the contract for additional costs incurred by the contractor.

5. The contractor shall be responsible for conducting routine inspections of the work and storage areas to maintain compliance with the cleanliness and safety requirements associated with this contract.

d. Definitions – Technical:

1. **Contractor.** The term Contractor refers to both the prime Contractor and subcontractors. The prime Contractor shall ensure that his/her subcontractors comply with the provisions of this contract

II. HEALTH AND SAFETY

a. Personal Health And Safety

Contractor work performed at TRF, Bangor is typically in an industrialized area and is subject to OSHA Standards. The contractor shall conduct all work in a safe manner and shall provide all necessary safety equipment.

The contractor shall make the maximum use of low-noise emission equipment as certified by the Environmental Protection Agency. Applicable regulatory requirements for maximum environmental noise levels are published in the Washington Administrative Code, WAC 173-60. The contractor shall provide hazardous noise signs and label equipment wherever work procedures and equipment produce sound-pressure levels greater than 84 dB(A) steady state and/or 140 dB peak sound pressure level for impact or impulse noise, regardless of the duration of the exposure.

b. Compliance With OSHA

Contractor's personnel shall perform all work in accordance with the most current OSHA rules and regulations issued by the Department of Labor, as applicable.

For all electrical equipment installation, the equipment and its component parts shall be in compliance with the applicable OSHA regulations in accordance with CFR Title 29, Chapter XVII, Part 1910 and installed in accordance with NEC/NFPA requirements. Approval shall be as specified under the "Approval" and "Acceptance" criteria in the OSHA regulations Subpart "O", Machinery and Machine Guarding paragraph 1910.212 and Subpart "S" Electrical, paragraph 1910.303 and paragraph 1910.399.

The contractor shall ensure all hazardous material (e.g. hydraulic oil, lubricants, grease, ink, paint, etc.) that is delivered with the equipment, is properly labeled and a Safety Data Sheet (SDS) for each hazardous material is provided, as outlined in OSHA paragraph 1910.1200. SDS(s) shall be delivered to the Receiving Activity Point of Contract/Surveillance Officer (who will deliver the SDS(s) to the appropriate Hazardous Material Coordinator for addition of the material to the shop Authorized Use List, and possibly have the material labeled (by the government) with a Hazardous Material barcode).

c. PCB Certification

Provide written certification from the manufacturer that any new equipment provided by this contract contains no detectable PCBs (less than two (2) parts per million (ppm)). The certification shall be on the manufacturer's letterhead and signed by a company official who is empowered to provide same. **PCB Label Plate** – A label plate containing the PCB Certification information shall be permanently affixed to the equipment in the vicinity of the manufacturer's identification plate. The certification label shall be engraved or etched on wear and corrosion resistant material.

d. Safety Equipment

During the performance of work under this contract, all contractor personnel shall have in their possession and shall properly wear OSHA approved personnel protective equipment (i.e. hard-hats, safety shoes, safety glasses and hearing protection and other PPE as necessary).

The Contractor shall provide all appropriate safety barricades, signs, and signal lights.

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

e. Safety Inspections

The contractor's workspace may be inspected periodically for compliance with OSHA Standards.

Abatement of violations will be the responsibility of the contractor and/or the government as determined by the Contracting Officer.

The Contractor shall provide assistance to the Safety Office escort and the federal OSHA inspector if a complaint is filed. Fines levied on the Contractor by federal OSHA offices due to safety/health violations shall be paid promptly by the Contractor.

f. Energy Control

Prior to commencement of ashore work, the contractor shall provide their 29 CFR 1915.89 compliant program/procedures to the Government's Representative. The contractor is required to meet with the Government's Representative and all affected Lockout-Tags-Plus Coordinators to discuss and coordinate lockout/tags-plus interfacing and work requirements.

The contractor shall notify all employees working in the area that Hazardous Energy Control work will be performed.

Contractor personnel shall ensure Hazardous Energy Control training is current and complies with 29 CFR 1915.89.

Equipment provided by the contractor shall provide energy isolating devices (e.g. safety switches valves, etc.) to protect personnel from Hazardous energy. These energy isolating devices shall be designed and manufactured such that they can be locked to prevent inadvertent operation or unauthorized change. The contractor shall ensure all energy isolating devices installed or modified are capable of being locked. To include, but is not limited to, manual, mechanical and electrical devices.

Contractor personnel are required to know and understand all energy sources associated with their work, the means to control these sources of energy and to render the system inoperative before work can begin.

Government organizations representatives shall ensure adherence to the "Organizations that issues contracts" section located in OSHE Control Manual Chapter 250 Hazardous Energy Control.

Government representatives shall also make certain all contractors understand "Contractors and other Non-Shipyard Government Organizations Shall" section of the OSHE Control Manual Chapter 250 Hazardous Energy Control.

Contractor personnel are also required to know the Hazardous Energy Control policy that TRF, Bangor employees are working to.

g. Audible Noise Levels

The peak audible noise emitted by the equipment being installed by the contractor shall not exceed 84 decibels at the operator's work position, nor at any other point at a distance of three feet from the equipment, as measured on the "A" weighed scale of a standard sound level meter under all operating and service conditions.

h. Accident Reporting

The contractor shall submit to the Contracting Officer, using the cognizant regulatory agencies prescribed forms, exposure data and all accidents resulting in death, trauma, or occupational disease. Accident reports shall be submitted within 24 hours of their occurrence.

The contractor shall submit to the Contracting Officer a full report of damage to government property or equipment by Contractor employees. Damage reports shall be submitted within 24 hours of the occurrence.

i. Emergency Medical Care

Only emergency medical care is available in government facilities to contractor employees who suffer on-the-job injury or disease. Care will be rendered at the rates in effect at the time of treatment. Reimbursement shall be made by the contractor to the Naval Regional Medical Center Collection Agent upon receipt of statement.

SPECIFICATION for
PROCESS OVENS (QTY: 2)

Project # 163-330
22 June 23

j. Fire Protection

The contractor and his employees shall know where the fire alarms are located and how to turn them on. The contractor shall handle and store all combustible supplies, materials, waste, and trash in a manner that prevents fire or hazards to persons, facilities, and materials. Contractor employees operating critical equipment shall be trained to properly respond during a fire alarm or fire.