STATEMENT OF WORK

Abrasive Blast Enclosure

1. SCOPE.

1.1. Portsmouth Naval Shipyard (PNSY) is seeking to lease one (1) portable, self-contained, abrasive blast enclosure. The system can be a stand alone unit with or without dust collection, vacuum recovery, blast system, and associated components as listed in Component List 3.1 including Start-up/commissioning, training, preventative maintenance and weekly equipment inspections for use at Naval Base Point Loma (NBPL) in San Diego, CA. Quantities are listed in paragraph 3.1 component list. The minimum allowable requirements for the system are detailed in this Statement of Work. Unless otherwise stated, the contractor shall furnish the system, including all labor, supervision, tools, materials, equipment and other items and services that are necessary to perform as described within this Statement of Work.

2. APPLICABLE DOCUMENTS.

2.1. **Issues of Publications**. The following documents in effect on the date of this requested proposal is a part of this specification to the extent applicable, or as specified herein. Within the specification, they shall be referred to by their basic designation only.

2.1.1. **Government Furnished**

2.1.1.1. Corporate Lifting and Handling Manual

2.1.2. **Nongovernment Furnished**

2.1.2.1. **N/A**

2.2. **Order of precedence**. In the event of conflict between the Statement of Work (SOW) and the references cited above, the text of this SOW shall take precedence. Nothing in this SOW, however, shall supersede applicable laws or regulations unless a specific exemption has been obtained.

3. REQUIREMENTS.

3.1. Abrasive Blast system Component List.

PIECE NO.	QTY.	NAME OF PART	PARA NO.
PC-1	1	Self-Contained Abrasive Blast Enclosure	

3.2. Self-Contained Abrasive Blast Enlcosure

3.2.1. **General Requirements**

3.2.1.1. Enclosure: Shall be a single, weatherproof, and transportable unit

3.2.1.2. Maximum exterior dimensions: 25’L x 9’W x 9.5’H

3.2.1.3. Interior working area: Shall provide a minimum clear, unobstructed blast area of 15’L x 8’W x 8’H

3.2.1.4. The enclosure interior, including all walls and floors, shall be fully protected from degradation due to the abrasive blasting process. Walls shall be lined with an industrial-grade, abrasion resistant material (e.g. rubber lined). The floor surface within the blast area shall be sheathed in ¼” minimum thickness steel plate.

3.2.1.5. Blast booth will be designed for a single operator.

3.2.1.6. Enclosure shall include a side wall connection or passthrough for customer owned blast pot.

3.2.1.7. The unit shall have at least one set of larger swing-out doors at one end. Unit may also include a personnel access door.

3.2.1.8. Ventilation: Blast booth shall be designed for end-to-end ventilation. Air shall flow from baffled intake plenum at one end, through the working area and into filter modules at opposite end or to 8” connection(s) for customer provided dust collector.

3.2.1.9. Lighting: Lighting must be purpose built for abrasive blast atmosphere and provide enough lighting for entire enclosure

3.2.1.10. The unit must be equipped with forklift pockets and certified overhead crane lifting points.

3.3. **Dust Collection**

3.3.1. Dust collector not required, but if included:

3.3.1.1. Maximum 4,000 CFM

3.3.2. **Electrical**

3.3.2.1. Operating Voltage: 460 VAC 3 Phase 60 Hz

3.3.2.2. All onboard low voltage controls must have integral transformer to provide necessary voltage stepdown.

3.3.2.3. Equipment shall come with with electrical cable or box mount connections properly rated for the voltage/amperage of the units. I.E., (Cam-Lok J series locking style 1016)

3.3.3. **Filtration**

3.3.3.1. The unit shall be furnished with pre-installed brand-new (clean) filters. Filters must have an efficiency rating of MERV-15 or greater.

3.3.3.2. The unit shall be equipped with a magnehelic gauge to monitor pressure across filters.

3.3.3.3. The unit shall feature a pneumatic pulse jet style cleaning system.

3.3.4. **Design/Construction**

3.3.4.1. The dust collection bin or hopper shall dump directly into two discharge outlets without the need of an auger. Each of the two outlets shall be complete with an adjustable fifty-five gallon drum cover (manual crank) with an attached flexible hose connecting the hopper to the top of the cover and a manual outlet slide gate or damper with protective screen. The height of the discharge outlet shall allow for easy installation and removal of a standard fifty-five gallon drum on a standard pallet (i.e. ≥40").

3.3.5. **Operating and Safety Controls**

3.3.5.1. Shall be UL listed.

3.3.5.2. The unit shall be designed for continuous operation and be able to withstand extreme ambient conditions at NBPL San Diego, CA.

3.3.5.3. All opening/connections/flanges are to be cleaned and capped.

3.3.5.4. All vendor supplied equipment shall be capable of operating in below freezing temperatures and include freeze protection measures on components that are prone to freezing.

3.4. **Equipment Start-up/ Commissioning Services**

3.4.1. Contractor must provide start-up, training, and commissioning services to prepare the equipment to be placed into service. This includes but is not limited to the following:

3.4.1.1. Energizing equipment

3.4.1.2. Pressurizing the system

3.4.1.3. Performing leak check of all contractor made connections

3.4.1.4. Adjusting setpoint(s) to meet the requirements of this Statement of Work

3.4.1.5. Verifying satisfactory operation of all drains installed on equipment

3.4.1.6. Troubleshooting/adjudicating any alarm conditions present on start-up (See 6.4)

3.4.1.7. Training Government operators on equipment function for each piece of equipment provided, control and alarm(s)/indications.

4. NOTES:

4.1. **Construction:** Except as noted for a particular machine type, units shall be a single integrated framed structure manufactured as a complete entity (Fully Packaged) to include all devices, accessories, and fittings necessary to perform the function for which it was designed. Each unit shall be capable of continuous, year-round, outdoor, unmanned operation even at minimal loading while exposed to

inclement to extremely harsh weather (e.g. deep snow, strong & gusty winds, and/or heavy rain) and varied ambient conditions (–10 to +110°F & 0 to 100% RH). Machines shall meet State and federal requirements for its type such as the National Electrical Code (NEC) for electrical devices / components and the American Society of Mechanical Engineers (ASME) for pressurized vessels / components. Machines shall be modular in design so as to act as a stand-alone unit; compact so as to fit in the tight confines of a drydock or pier space(s); portable so as to be lifted by crane; and ruggedly constructed so as to endure a marine industrial environment. Machines shall be newly manufactured / completely refurbished and factory tested within ten (10) years.

4.2. **Electrical:** Electrical components shall conform/meet or exceed a NEMA standard (NEMA 3) that allows for unsheltered outdoor use of the unit. Each machine shall require only one type / source of electrical power (460 VAC +5% / three-phase / 60 hertz or 120 VAC +5% / Single Phase / 60 hertz). The type of electrical power required (voltage & amperage) must be clearly indicated on the outside of the equipment, readily detected, and collocated with all other electrical information. The Contractor shall provide the Contracting Officer's Representatives (COR) and Technical Points of Contact (TPOC) written notification of the following details: (i) electrical power type (amperage & voltage); (ii) type of electrical connectors shall be delivered with fabricated, watertight, Camlok connections (iii) breaker type/size or recommended capacity for the electrical source; and (iv) whether the machine is furnished with over-current protection at time of delivery to allow for safe connection to Government provided power source. This information must be included in technical submittals for review by engineering to allow for planning efforts by the project.

4.3. **Contractor Identification Of Itemized And Ancillary Equipment:** The Contractor shall uniquely tag and permanently mark all of its ancillary and itemized equipment / hardware (e.g. manifolds, hose assemblies, pipe fittings, duct adapters, ducting, etc.) so as to differentiate from that owned by either the Shipyard or other Contractors.

4.4. **Dead Front Control Panel or External Controller:** Access to basic machinery controls, such as a Dead Front Control Panel or External Controller, shall be such that there is non-exposure to energized live electrical circuits or other components regardless of voltage, to include control circuitry, by a person on the operating side of the equipment.

5. **RESPONSIBILITY**.

5.1. **Government**

5.1.1. Electrical power, water, and compressed air services as required for the proper operation of the system.
5.1.2. Equipment Technical Evaluation: C230 Engineering
5.1.3. Receipt Inspection: COR, TPOC & Zone Manager (ZM)
5.1.4. Schedule equipment delivery & returns: COR, TPOC & ZM
5.1.5. Schedule equipment service, repair, and training: COR, TPOC & Project Zone Manager.

5.2. **Contractor**

5.2.1. Any and all required State approved safety features (i.e. safety pressure relief valves, low water cutout, over pressure protection) installed with applicable State certification.
5.2.2. The contractor shall maintain a stringent maintenance program and be responsible for all preventative maintenance, except for daily check of liquid levels. The contractor shall provide oil, filters, coolant, and lubricant for engine during the rental period.
5.2.3. The contractor shall provide repair service within twelve (12) hours after notification by the Contracting Officer or his/her representative. In the event the machine cannot be returned to service within twenty-four (24) hours of notification, the Contractor shall deliver a replacement at no extra charge to the Government.
5.2.4. The contractor shall provide equipment start-up, and on site commissioning

5.2.5. The contractor shall be responsible for equipment failure not arising out of abuse or negligence by the government.
5.2.6. There shall be no changes unless authorized by the Contracting Officer.
5.2.7. The Contractor shall provide technical support to PNSY project personnel as required.
5.2.8. The contractor must submit a Quality Assurance Plan (QAP) for review, outlining the methodology for inspection, testing, and verifying that all equipment provided meets or exceeds the requirements of this SOW.

5.3. **Maintenance**

5.3.1. **Surveillance Checks**. The Government will conduct daily surveillance checks of the equipment, which is limited to a visual inspection verifying no alarm conditions or obvious deficiencies are present (Ex. Abnormal Noises, Vibrations, leaks). Except for daily surveillance checks, the Contractor is responsible for all equipment preventative maintenance, weekly inspections and repairs for the duration of the lease. The Contractor shall coordinate with the COR and TPOC, in writing, to schedule preventative maintenance and weekly inspections.

5.3.2. **Preventative Maintenance & Weekly Inspections**. The Contractor shall perform Preventative Maintenance and Weekly Inspections of the equipment during the contract. The Contractor shall provide a Preventative Maintenance (PM) plan with schedules which are equipment specific and include a list of actions for both weekly inspections and PM. At a minimum, the list of actions shall meet all requirements recommended by the Original Equipment Manufacturer (OEM). If a list of actions is not available from or recommended by the OEM, the Contractor shall develop a list of actions and perform these services in accordance with the SOW. Weekly inspections shall be performed by a qualified service technician provided by the Contractor and shall consist of checking all functional operating parameters of each individual piece of equipment including, but is not limited to: verifying correct equipment set-up, performance and operation, checking for diagnostic or trouble codes. The PM plan actions list for each piece of equipment shall include a comprehensive list of the components to be serviced as well as identifying the service frequency (e.g., all consumables to be replaced, bearing grease points, belt replacement / tensioning, filter changes, refrigerant charge, oil changes, other lubrication, coolant refills, liquid top-offs, etc.) The Contractor shall prepare and submit a technical field report that identifies what was included in the weekly inspection, the results of the inspection, and which PM plan actions were performed, what system, equipment or component was serviced, when the PM was performed and next scheduled PM date. Copies of all reports shall be delivered to the COR and TPOC upon completion of the service.

5.3.3. **Repairs**. The Contractor shall provide a qualified service technician to repair all equipment deficiencies and malfunctions and return the system to an operable condition.

5.4. **Training**. The Contractor is responsible for and shall provide training sessions to Shipyard Personnel on the operation and setup of all equipment. Training shall be available throughout the duration of the lease to accommodate equipment swap out and seasonal equipment operation.

5.5. **Deliverables**. The Contractor shall deliver the following information, electronically to the COR and TPOC, and in hard copy when the equipment is delivered to the Government:

5.5.1. Technical Instructions (TIs) such as Operations & Maintenance Manuals, Operating Instructions, Controls Manual, and/or Mechanical/Electrical Manual with Schematics; Note, all Technical Instructions shall be located in a water proof case affixed to each machine.
5.5.2. Points of contact with telephone numbers for requesting emergency repairs 24 hours 7 days a week
5.5.3. Preventative Maintenance Schedules.
5.5.4. Equipment Data Sheet (EDS)

6. DELIVERY / ACCEPTANCE / RETURN.

6.1. **Delivery**. The Contractor shall deliver machinery that is fully assembled, ready-to-use, in a first-class-operating condition and functions as intended. The machinery with its support equipment shall be delivered to the site on or prior to the request date. The Contractor shall confirm the date and time of delivery prior to each delivery with the COR and TPOC, if appointed. The Government can provide forklift services for removing machinery from Contractor's transport during work hours. The Contractor shall provide the COR and TPOC with an itemized list of all equipment delivered at the time of delivery.

6.2. **Start Up-** Upon delivery, the Contractor shall: **(i)** provide start up and commissioning of the equipment to verify its operability; **(ii)** provide all deliverables; and **(iii)** train designated Shipyard personnel on how to properly run the equipment to include its operation, control, daily checks, & service contacts

6.3. **Security-** To be allowed onto a government Shipyard, personnel must be US citizens and in possession of appropriate personal identification. Proof of US citizenship may be necessary and can be required for access to the equipment installation location. Allowable documentation of US citizenship is an official government issued Certificate of Birth or Naturalization (w/ raised seal & not a photocopy) or a US passport. Vehicular access requires a non-expired REAL ID personal Driver's License and appropriate vehicle identification or registration. The transport vehicle must have the company's name / logo prominently displayed. To gain access to the drydock environs, personnel must be escorted and possess / wear their own personal safety gear.

6.4. **Receipt Inspection Criteria-** Equipment must meet all criteria defined in this specification.

6.5. **Final Acceptance**. Upon satisfactory completion of inspection and test of the equipment, the authorized Government Representative (Portsmouth Naval Shipyard Code 970 Equipment Manager or Project Zone Manager) will sign and forward the acceptance document(s) to the POC as designated on the Contract and/or the COR for completion. Unloading of equipment from Contractor's transport does not signify acceptance.

6.6. **Return**. The Government will provide a temporary storage location convenient for Contractor pick-up. The Government will notify the Contractor as well as the Contracting Office as to when the rental Item has been released and is available for pick-up. The last day of the rental period shall be the next normal workday after the Contractor has been so notified. The Contractor shall be responsible for shipping. The Government can provide forklift services during work hours for placing the equipment onto the Contractor's transport.

7. ATTACHMENTS

7.1. Corporate Lifting and Handling Manual

7.2. Vendor Compliance Checklist