

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS <i>OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, AND 30</i>				1. REQUISITION NUMBER		PAGE 1 OF 51		
2. CONTRACT NO.		3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER		5. SOLICITATION NUMBER N69450-16-R-3230		6. SOLICITATION ISSUE DATE 07-Apr-2016	
7. FOR SOLICITATION INFORMATION CALL:		a. NAME JOEL OVERSON			b. TELEPHONE NUMBER (No Collect Calls) 361-961-3397		8. OFFER DUE DATE/LOCAL TIME 05:00 PM 10 May 2016	
9. ISSUED BY NAVFAC SOUTHEAST SOUTH TEXAS AREA PWD CORPUS CHRISTI/PWD INGLESIDE 8851 OCEAN DRIVE, BLDG 19 CORPUS CHRISTI TX 78419-5525 TEL: FAX:			CODE N69450		10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED <input checked="" type="checkbox"/> SET ASIDE: 100% FOR <input checked="" type="checkbox"/> SB <input type="checkbox"/> HUBZONE SB <input type="checkbox"/> 8(A) <input type="checkbox"/> SVC-DISABLED VET-OWNED SB <input type="checkbox"/> EMERGING SB SIZE STD: 20.5 NAICS: 562910		11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE	12. DISCOUNT TERMS
15. DELIVER TO PWD CORPUS CHRISTI INSPECTOR OF RECORD 8851 OCEAN DR, BLDG. 19 CORPUS CHRISTI TX 78419-5525 TEL: 361-961-3397 FAX:			CODE N44215		16. ADMINISTERED BY			CODE
17a. CONTRACTOR/OFFEROR			CODE		18a. PAYMENT WILL BE MADE BY			CODE
TEL.			FACILITY CODE					
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER				18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM				
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES				21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
SEE SCHEDULE								
25. ACCOUNTING AND APPROPRIATION DATA						26. TOTAL AWARD AMOUNT (For Govt. Use Only)		
<input type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1. 52.212-4. FAR 52.212-3. 52.212-5 ARE ATTACHED. ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED								
<input type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED								
28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN <u>2</u> COPIES <input checked="" type="checkbox"/> TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.					29. AWARD OF CONTRACT: REFERENCE <input type="checkbox"/> OFFER DATED . YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:			
30a. SIGNATURE OF OFFEROR/CONTRACTOR				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)			31c. DATE SIGNED	
30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT)			30c. DATE SIGNED		31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT)			
					TEL: EMAIL:			

**SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS
(CONTINUED)**

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
<p>SEE SCHEDULE</p>					

32a. QUANTITY IN COLUMN 21 HAS BEEN
 RECEIVED INSPECTED ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: _____

32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE	32c. DATE	32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE
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32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE	32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE
	32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE

33. SHIP NUMBER	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	37. CHECK NUMBER
<input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL				

38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY
------------------------	------------------------	-------------

41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT	42a. RECEIVED BY (<i>Print</i>)
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER	41c. DATE
	42b. RECEIVED AT (<i>Location</i>)
	42c. DATE REC'D (<i>YY/MM/DD</i>)

Section SF 1449 - CONTINUATION SHEET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	B-1730 MOLD ABATEMENT FFP ABATE MOLD IN BLDG 1730 AT NAS CORPUS CHRISTI, TX, IN ACCORDANCE WITH THE STATEMENT OF WORK. PERIOD OF PERFORMANCE WILL BE A TOTAL OF 180 CALENDAR DAYS INCLUDING DESIGN, DESIGN APPROVAL, AND CONSTRUCTION. FOB: Destination	1	Job		
NET AMT					

STATEMENT OF WORK**GENERAL INFORMATION:****Document Type: Combined Synopsis/Solicitation Notice****Solicitation Number: N69450-16-R-3230****Set Aside: 100% Total Small Business****NAICS Code: 562910, Size standard in Millions: \$20.5**

DESCRIPTION / SCOPE OF WORK: Contractor is to provide all Labor, Materials, equipment, Tools, Transportation and Management necessary to abate the mold in Bldg 1730 at NAS Corpus Christi, TX.

This announcement constitutes the only solicitation; no separate written solicitation will be issued.

BASIS FOR AWARD: AWARD WILL BE BASED ON LOWEST PRICE.**Target Price Range is less than \$75K**

Anticipated award date: 5 days after close of solicitation

Quotes are to be received no later than 5:00 p.m. central standard time on 10 April 2016. Proposals should be emailed to joel.overson@navy.mil

Any changes to the solicitation or RFI's will be posted on FEDBIZOPS (www.fbo.gov) for the mutual benefit of all bidders.

ADDITIONAL INFORMATION:

Solicitation document shall be signed by bidders and all applicable Certifications and Representations shall be completed. Offer should be in sufficient detail to ensure that the technical team can determine the offer complies with the Statement of Work (SOW).

All payments are to be paid via the Internet through the Wide Area Work Flow (WAWF) system. WAWF may be accessed at <https://wawf.eb.mil>. WAWF training may be accessed online at <http://www.wawftraining.com>. Payment information may be accessed using the DFAS website at <https://www.dfas.mil>. Your purchase order/contract number or invoice will be required to inquire status of your payment.

Be advised that all interested parties must be registered in the System for Award Management (SAM) Database in order to receive payment for products/services rendered to the Government as the result of an award. If you are not registered you may request an application at (334) 206-7828 or through the SAM website at <https://sam.gov>.

Rapid Gate Information: The Navy has implemented a new security access program for the Corpus Christi and Kingsville Naval Air Stations. This program, called Rapid gate, will reduce expenses, reduce risk, and insure quicker access for people coming to the installation. You must either call 1-877-727-4342 or go online to <http://rapidgate.com>. Once the company is enrolled, your employees can register at the installation. If your company employees have been authorized the common access card (CAC), it is not necessary to enroll in the rapid gate program.

SITE VISIT INFORMATION:

1. One site visit will be held to ensure all potential offerors have uniform information in order to make an accurate proposal.
2. Site visit will be conducted on **15 APR 2016 at 9:00 a.m. central time at NAS Corpus Christi, TX**. All potential offerors are encouraged to attend the site visit to perform an inspection of the size and current layout.
3. Offerors are expected to satisfy themselves as to the general and local conditions that may affect the cost of the performance of the work to the extent that such information is reasonably obtainable. It is considered impractical to determine, without inspection, the exact nature of the work and site conditions under which the work is to be performed.

4. To attend please contact the Site Visit POC.

Site Visit POC:

Julian Reyes

julian.reyes@navy.mil

361-961-2830

Deadline for receipt of this form is one week prior to the site visit. It is the responsibility of the contractor to confirm this form is received. After submission of form should a person not be available to attend, send a cancellation email to the same POC.

5. Interested parties are advised to arrive by an hour early in order to receive security passes and clearance.
6. The contractor may require, and should have, their own ear plugs, safety glasses and safety shoes to have access to the work site.

STATEMENT OF WORK

ABATE MOLD BUILDING 1730, NAS CORPUS CHRISTI, TX

1. **GENERAL DESCRIPTION:** The Contractor shall provide all supervision, transportation, labor, materials, equipment and incidental work necessary to abate mold currently inhabiting 1730. See paragraph 13 for detailed statement work.
2. **LOCATION:** The work is located at Building 1730, N. A. S. Corpus Christi, Texas. See Attachment A for project location.
3. **PERIOD OF PERFORMANCE:** The period of performance is 180 calendar days. The period of performance starts when the contract/task order is awarded, and ends when the work is completed and accepted by the Government. The period of performance includes pre-construction submittals, material/equipment lead time, and all construction activities up to final acceptance. The period of performance is negotiable; hence, if the contractor believes a different/longer period of performance is needed, they should negotiate this with the Contract Specialist prior to task order/contract award.
4. **EXAMINATION OF SITE:** Bidders are expected to visit the site, take their own measurements, inspect carefully the work area and satisfy themselves as to the character and amount of work to be done. Site visit will be scheduled in advance. Arrangements to visit the site may be made by contacting the Contracting Officer's Representative. See site visit information above.

5. WORK RESTRICTIONS: The following work restriction apply to this project:

5.1 Schedule hours: The work shall be so scheduled as to cause a minimum of interference to the normal operations of the tenants. Work shall be accomplished between the hours of 7:30 A.M. and 4:30 P.M., Monday through Friday. If the Contractor desires to work on Saturday, Sunday, holidays, or outside of the Station's regular hours, an application may be submitted to the Contracting Officer for approval.

5.2 RAPID Gate: All contractor and subcontractor personnel shall obtain a RAPID Gate pass to gain access to NAS Corpus Christi. Please allow three days for processing of all RAPID Gate applications. See <http://www.rapidgate.com> for additional information and costs. Costs incurred to obtain base access credentials are not directly reimbursable. No equitable adjustment in contract cost/price or schedule shall be allowed on account of the contractor participating in any program to obtain installation access.

5.3 Flight Line Pass: All contractor and subcontractor personnel working on airfield or flight line shall obtain flight a line pass. The flight line pass is offered at no costs to the contractor, but requires up to three days to process. Once the individual's application is processed, he/she shall proceed to the pass and tag office to have the flight line pass issued.

5.4 Airfield Vehicle Operators License: For projects located on the flight line or airfield, contractor or subcontractor personnel operating vehicles must also obtain one of two levels of licenses: (1) the Area 1 license (controlled movement areas), or (2) the Area 2 (aprons, non-runway/taxiway area). This license is required so ensure that all drivers are familiar with the airfield, its safety rules and radio protocols when operating vehicles where aircraft are present. The license must be obtained before the flight line pass. The license must be presented when obtaining the flight line pass in order to properly code the flight line pass to allow the driver to pass through the airfield access gate. Licenses are offered at no cost to the contractor.

5.4.1 Area 2 License - Area 2 includes all parking aprons, hangars, and associated facilities. To obtain an Area 2 license, vehicle operators must attend a one-hour class conducted on Tuesdays.

5.4.2 Area 1 License - Area 1 includes all runways, taxiways, and the perimeter road. To operate a vehicle in Area 1, the driver must attend an 8-hour class that is offered on Thursdays and continues into the next day(s). To obtain an Area 1 license, the operator must attend the class, pass a written test, and complete a day and night time practical test. An Area 1 license enables the driver the ability to drive on the entirety of the airfield, but the Area 2 license does not grant access to drive beyond the aprons.

5.5 Material deliveries: Material delivery trucks do not necessarily require RAPID Gate passes, flight line passes, or ramp passes. However, any material delivery driver that does not have a RAPID Gate pass must be escorted by Government personnel. To properly plan for Government escort availability, three (3) working days' notice is required for all material deliveries. Any material delivery driver that possesses a RAPID Gate pass does not require Government escort or advance notification unless the material is to be delivered on the flight line or airfield.

5.6 Time-Sensitive Material Deliveries: Time-sensitive material deliveries such as asphalt or concrete require pre-arrangement by NAS Security personnel to ensure expedited access at the entrance gate. Seven (7) calendar days' notice is required for time-sensitive material deliveries.

6. PROTECTION OF EXISTING WORK: Existing work to remain shall be protected from damage. Work damaged by the Contractor shall be repaired to original condition at no additional cost to the Government.

7. NAS FIRE REGULATIONS: "Hot work" permits are issued to the Contractor by the Fire Prevention Inspectors by calling 961-4151 or 961-4983. Permits are issued on a daily basis only and from start of work until finished. Permits are required for all "hot work" and before entering buildings. ("Hot work" includes all welding, cutting, soldering/brazing, blow torches, etc.)

8. SAFETY REQUIREMENTS: The Contractor shall comply with the safety rules and regulations pertaining to the activity, and shall govern employees according to, and in compliance with applicable OSHA Regulations and U.S. Army Corps of Engineers Safety and Health Manual EM 385-1-1. The Contractor shall maintain an accurate record of exposure data on all accidents incidental to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment. The Contractor shall report this data in the manner prescribed by the Contracting Officer. A written safety plan, outlining all Contractor Safety Procedures, will be required for all work under this contract, and is subject to acceptance by PWD Corpus Christi FEAD prior to commencement of work.

8.1 Lock out/ Tag Out Policy

- a. Combination locks shall not be used for lockout;
- b. No two (2) lockout devices (locks) shall be keyed alike;
- c. No more than two (2) keys shall exist for any lock. The worker shall maintain one key, and the supervisor shall maintain the other in a location readily accessible in the event of an emergency;
- d. Both lockout and tag-out devices shall indicate the identifier of the employee applying the device(s). Tag-out devices shall include the cognizant shop (or code), the telephone number where the employee can be reached during working hours, name of his/her supervisor, date the device was applied, and the machine, equipment, or system component that is de-energized.

9. ASBESTOS AND LEAD: There is no known asbestos containing material (ACM) and/or lead based paint on this project. If additional materials are encountered which may contain ACM and/or lead, DO NOT TOUCH THE MATERIAL. IMMEDIATELY NOTIFY THE CONTRACTING OFFICER IN WRITING. Within a reasonable time, the Government will perform tests to determine if asbestos or lead is present. If the materials are determined not to

contain ACM or lead, the Contractor shall proceed without change. If it is determined that ACM and/lead are present and must be disturbed, the Contracting Officer may direct a change accordingly.

10. **WEIGHT HANDLING EQUIPMENT (WHE):** The provision of NAVFAC Publication P-307 apply to all civilian, military, and contractor personnel who operate weight handling equipment and use crane related rigging gear on board Naval Air Station Corpus Christi, Texas.

11. **EXCAVATIONS AND OUTAGES:** Any excavation greater than 6 inches below grade requires an excavation permit. Any utility or HVAC outage affecting inhabited work space, inhabited living space, or exit from an inhabited work space/living space requires an Outage Permit. For Excavation and Outage contact the government point of contact listed in paragraph 13.3.

12. **ATTACHMENTS:** The following sketches are a part of this specification and shall not be used for any purpose other than that contemplated by this contract:

Attachment	Title
A	Project Location
B	Solid Waste Report
C	PMI Equipment Inventory Card
D	Interim Design Guidance

13. **SCOPE OF WORK:**

I. Currently the second floor of 1730 has issues with humidity control that has encouraged mold growth in several areas of the second floor. The second floor has the heights presence of mold and is approximately 10,000 square feet and has 8 foot ceiling. Mold growth is present in various locations through-out building 1730. Included in attachment A are floor plans for the building. Mold is to be removed or cleaned from surfaces. This remediation process must meet all Texas state law requirements. Attachment D to this scope of work is the **INTERIM TECHNICAL GUIDANCE** providing in depth guidelines and permissible exposure levels.

II. Provide mold remediation work including the handling and control of mold contaminated materials and the resultant procedures and equipment required to protect workers, the environment and occupants of the building or area, or both, from contact with mold products and spores. The work also includes the disposal of any mold contaminated materials generated by the work. The mold removal work includes removal of mold

growth from porous and non-porous surfaces located on the first and second deck of building 1730.

- III. The following microbial remediation specifications apply to the cleaning /removal and disposal of fungally-contaminated porous, semi-porous and non-porous surfaces within various types of structures. The level of containment and requirements for cleaning and remediation of materials will depend on the condition of the space and materials being remediated.
- IV. Immediately after award of the contract, prepare a preliminary visual assessment report to document the pre-remediation condition of the work. Submit this written pre-remediation condition report to the Contracting Officer for approval and instructions to proceed.
- V. After approval of the preliminary visual assessment report and having instructions from the Contracting Officer to proceed, prepare a microbial remediation plan for approval by the Contractor's Certified Industrial Hygienist. Microbial remediation plan shall include an assessment of the risk for people to occupy areas adjoining the remediation area while remediation work is occurring. Upon the Contractor's CIH approval of the plan, submit the plan to the Contracting Officer for approval.
- VI. The Contractor's CIH or IH shall monitor the site on a daily basis while remediation work is in progress, identifying work and/or work practices that are not in compliance with the approved microbial remediation plan, and performing all inspections required by this specification.

13.1 The contractor shall conduct his own survey of the site to determine existing features, conditions, and measurements. The contractor shall report any discrepancy between the statement of work and existing conditions prior to the commencement of work.

13.2 The contractor shall coordinate with the FEAD Department approximately three working days in advance of start of work to let the occupant of the building know when the construction is to take place so that they may notify their personnel to remain clear of the jobsite and to not affect scheduled work hours.

13.3 All work under this Contract is to be accomplished with FEAD Department oversight. The contractor shall coordinate with the FEAD Point of Contact site visit access. The contractor shall give notice to the FEAD Point of Contact prior to accomplishment of any work. The Point of Contact will be appointed by the contracting officer at the time of contract award.

13.4 Keep the jobsite clean at all times, and remove all debris from the station.

13.5. All work shall be performed in compliance with the latest edition of the EPA guideline Mold Remediation in Schools and Commercial Buildings and Attachment D Interim Design guidance.

13.6 Licensing Requirements: All work completed for this project must be done by mold remediation personnel specific certified by state of Texas mold remediation laws.

13.7 Submittals: Submittals shall be provided and approved prior to delivery to the job site. If submittals contain information for more than one product type, clearly indicate which product type is being submitted for approval. Provide submittals for the following materials to be furnished and delivered under this contract to the Contracting Officer for approval prior to installation:

Mold Abatement plan and schedule.

The approval or acceptance of submittals is not be construed as a complete check, and indicates only that the general method of construction, materials, detailing and other information are satisfactory. Approval or acceptance will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work.

13.8 Work Schedule: Submit schedule of work to include start date and end date of all major activities.

14. PRODUCTS: Products shall be new, manufacturer's standard products, and commonly available from manufacturer's stock.

15. TERMS OF PAYMENT: Refer to contract clauses and amendments for payment terms and conditions.

16. ORAL MODIFICATIONS: No oral statement of any person other than the Contracting Officer or his/her representative, as provided in the contract clause entitled "Changes" shall in any manner or degree modify or otherwise affect the terms of this contract.

17. CLEANUP: The premises shall be kept free at all times from the accumulation of waste material and/or rubbish resulting from the work. Combustibles shall be removed daily, and upon completion of the work, all debris, tools, and other surplus materials shall be removed and the premises left in approved condition.

18. ENVIRONMENTAL REQUIREMENTS: Take no action or inaction that exposes the Government to liability for non-compliance or other findings or damages, penalties or fines related thereto. In the event a regulatory agency assesses either a monetary or non-monetary fine or penalty for Contractor's noncompliance, the Contractor shall reimburse the Government for all associated cost. Remove all hazardous material and waste upon completion of the contract. Abandoned waste shall be managed as "unknown waste", and the contractor shall bear the cost of any analytical, disposal, or other costs incurred.

18.1 Regulated Waste: Regulated waste is defined as (1) hazardous waste as defined in EPA Regulations 40 CFR 261, (2) universal waste as defined in EPA Regulations 40 CFR 273, and (3) Class 1 industrial waste as defined in Texas Commission on Environmental Quality Regulations 30 Texas Administrative Code Parts 335 and 503. Manage all regulated waste and used oil in accordance with applicable federal, state, and local regulations, Navy and NASCC policies and instructions. All regulated waste shall be manifested through PWD Corpus Christi Environmental Division.

Before generating regulated waste obtain approval for storage from the Environmental Division. Application for approval shall include including location and type of storage (i.e. Satellite Accumulation Point or <90-day Storage Area). Contractor shall provide immediate access to PWD Corpus Christi Environmental Division to inspection any locked units. Contractor shall inspect their regulated waste storage areas and provide weekly inspection reports to the Government POC.

PWD Corpus Christi Hazardous Waste Commodity Branch (HWCB) provides comprehensive regulated waste disposal services. If the contractor chooses to dispose of regulated waste through the HWCB, contractor shall establish a line of credit with the HWCB and provide required waste stream information **before generating any waste**. If contractor chooses not to dispose of regulated waste through the HWCB, the contractor shall provide funding to the HWCB for manifesting services. For FY 16 the rate is \$68 per manifest. The contact phone number for the HWCB is 361-961-3760. Contractor shall contact the HWCB before make any arrangements to remove regulated waste from the installation.

18.2 Solid Waste Disposal: All waste not covered under paragraph 18.1 must be tracked by NASCC whether directly disposed in a landfill or recycled. Contractor shall recycle waste to the greatest extent feasible. The solid waste tracking form is included in Attachment B. Contractor shall provide the filled out form to the Government POC at the close of the project.

18.3 Environmental Assessment Compliance Training and Tracking System (ECATTS): The project quality control manager shall complete ECATTS training **prior** to starting work.

ECATTS is available 24/7 on the Internet. Contractors who perform work on more than one contract for the same installation or within the same state will not have to take the training each time they start a new project. Contractors will carry forward all applicable credits received for taking ECATTS to future contracts.

ECATTS is available at:

<https://environmentaltraining.ecatts.com/>

Registration Password = navfac (case sensitive)

Sample registration instructions that can be provided to users are available from ECATTS Customer Support.

18.4 Storm Water Containment: Block solids in storm water runoff to all nearby storm sewers with silt screen. Secure all loose dirt by using temporary berm to avoid discharge to storm inlet. Storm water best management practices must be implemented in accordance with station's storm

water management plan. PWD Corpus Christi Environmental Division POC is Bernice Snyder at 961-5353 or Mr. Ross Ybarra at 961-2170.

19. PMI INVENTORY CARD: Contractor shall provide a completed PMI Equipment Inventory Card included as Attachment C for each piece of dynamic equipment containing a serial number. This requirement is in addition to any other operation and maintenance information required in the Submittals paragraph.

20. ACCEPTANCE: The work shall be accepted as a result of a final inspection conducted by a representative of the Facility Engineering and Acquisition Division, Public Works Department Corpus Christi.

21. WARRANTY: All workmanship and materials and/or equipment shall be warranted for a period of not less than one year under normal wear and tear or the normal standard warranty should it extend beyond one year.

*** END OF SPECIFICATIONS ***

252.232-7006 WAWF

252.232-7006 WIDE AREA WORKFLOW PAYMENT INSTRUCTIONS (MAY 2013)

(a) Definitions. As used in this clause--

Department of Defense Activity Address Code (DoDAAC) is a six position code that uniquely identifies a unit, activity, or organization.

Document type means the type of payment request or receiving report available for creation in Wide Area WorkFlow (WAWF).

Local processing office (LPO) is the office responsible for payment certification when payment certification is done external to the entitlement system.

(b) Electronic invoicing. The WAWF system is the method to electronically process vendor payment requests and receiving reports, as authorized by DFARS 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports.

(c) WAWF access. To access WAWF, the Contractor shall--

(1) Have a designated electronic business point of contact in the System for Award Management at <https://www.acquisition.gov>; and

(2) Be registered to use WAWF at <https://wawf.eb.mil/> following the step-by-step procedures for self-registration available at this Web site.

(d) WAWF training. The Contractor should follow the training instructions of the WAWF Web-Based Training Course and use the Practice Training Site before submitting payment requests through WAWF. Both can be accessed by selecting the “Web Based Training” link on the WAWF home page at <https://wawf.eb.mil/>.

(e) WAWF methods of document submission. Document submissions may be via Web entry, Electronic Data Interchange, or File Transfer Protocol.

(f) WAWF payment instructions. The Contractor must use the following information when submitting payment requests and receiving reports in WAWF for this contract/order:

Contract number, typically in the form N69450-14-M-1234, for example.

(1) Document type. The Contractor shall use the following document type(s).

Naval Construction/Facilities Management Invoice

(2) Inspection/acceptance location. The Contractor shall select the following inspection/acceptance location(s) in WAWF, as specified by the contracting officer.

Inspection – N44215

Acceptance – N44215

(3) Document routing. The Contractor shall use the information in the Routing Data Table below only to fill in applicable fields in WAWF when creating payment requests and receiving reports in the system.

Routing Data Table*

Field Name in WAWF	Data to be entered in WAWF
Pay Official DoDAAC	N68732
Issue By DoDAAC	N69450
Admin DoDAAC	N44215
Inspect By DoDAAC	N44215
Ship To Code	N/A
Ship From Code	N/A
Mark For Code	N/A
Service Approver (DoDAAC)	N/A
Service Acceptor (DoDAAC)	N/A
Accept at Other DoDAAC	N/A
LPO DoDAAC	N44215
DCAA Auditor DoDAAC	N/A
Other DoDAAC(s)	N/A

(4) Payment request and supporting documentation. The Contractor shall ensure a payment request includes appropriate contract line item and subline item descriptions of the work performed or supplies delivered, unit price/cost per unit, fee (if applicable), and all relevant back-up documentation, as defined in DFARS Appendix F, (e.g. timesheets) in support of each payment request.

(5) WAWF email notifications. The Contractor shall enter the email address identified below in the "Send Additional Email Notifications" field of WAWF once a document is submitted in the system.

joel.overson@navy.mil

(6) WAWF point of contact. (1) The Contractor may obtain clarification regarding invoicing in WAWF from the following contracting activity's WAWF point of contact.

WAWF Technician: Dana Villarreal (361)516-6210 dana.villarreal@navy.mil

Contracting Officer: Joel Overson (361)961-3397 joel.overson@navy.mil

(2) For technical WAWF help, contact the WAWF helpdesk at 866-618-5988.

(End of clause)

WAGE DETERMINATION

WD 05-2507 (Rev.-18) was first posted on www.wdol.gov on 01/05/2016

REGISTER OF WAGE DETERMINATIONS UNDER | U.S. DEPARTMENT OF LABOR
THE SERVICE CONTRACT ACT | EMPLOYMENT STANDARDS ADMINISTRATION
By direction of the Secretary of Labor | WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

| Wage Determination No.: 2005-2507
Daniel W. Simms Division of | Revision No.: 18
Director Wage Determinations | Date Of Revision: 12/29/2015

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Service Contract Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

State: Texas

Area: Texas Counties of Aransas, Bee, Calhoun, Goliad, Jim Wells, Kleberg, Live Oak, Nueces, Refugio, San Patricio, Victoria

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION CODE - TITLE	FOOTNOTE	RATE
01000 - Administrative Support And Clerical Occupations		
01011 - Accounting Clerk I	12.96	
01012 - Accounting Clerk II	14.55	
01013 - Accounting Clerk III	16.27	
01020 - Administrative Assistant	20.11	
01040 - Court Reporter	16.11	
01051 - Data Entry Operator I	10.21	
01052 - Data Entry Operator II	12.12	
01060 - Dispatcher, Motor Vehicle	15.58	
01070 - Document Preparation Clerk	11.64	
01090 - Duplicating Machine Operator	11.64	
01111 - General Clerk I	11.40	
01112 - General Clerk II	13.38	
01113 - General Clerk III	15.06	
01120 - Housing Referral Assistant	18.25	
01141 - Messenger Courier	10.32	
01191 - Order Clerk I	10.43	
01192 - Order Clerk II	11.96	
01261 - Personnel Assistant (Employment) I	15.03	
01262 - Personnel Assistant (Employment) II	16.81	
01263 - Personnel Assistant (Employment) III	18.75	
01270 - Production Control Clerk	22.73	
01280 - Receptionist	10.55	
01290 - Rental Clerk	13.27	
01300 - Scheduler, Maintenance	14.51	
01311 - Secretary I	14.51	
01312 - Secretary II	16.37	
01313 - Secretary III	18.25	
01320 - Service Order Dispatcher	15.58	
01410 - Supply Technician	20.11	
01420 - Survey Worker	15.95	
01531 - Travel Clerk I	11.09	
01532 - Travel Clerk II	12.21	
01533 - Travel Clerk III	13.10	
01611 - Word Processor I	12.31	
01612 - Word Processor II	13.81	
01613 - Word Processor III	15.45	
05000 - Automotive Service Occupations		
05005 - Automobile Body Repairer, Fiberglass	18.21	
05010 - Automotive Electrician	17.48	
05040 - Automotive Glass Installer	16.74	
05070 - Automotive Worker	16.74	
05110 - Mobile Equipment Servicer	15.29	
05130 - Motor Equipment Metal Mechanic	18.21	
05160 - Motor Equipment Metal Worker	16.74	
05190 - Motor Vehicle Mechanic	18.21	
05220 - Motor Vehicle Mechanic Helper	14.51	
05250 - Motor Vehicle Upholstery Worker	16.01	
05280 - Motor Vehicle Wrecker	16.74	
05310 - Painter, Automotive	17.48	
05340 - Radiator Repair Specialist	16.74	
05370 - Tire Repairer	14.77	
05400 - Transmission Repair Specialist	18.21	

07000 - Food Preparation And Service Occupations	
07010 - Baker	9.21
07041 - Cook I	9.04
07042 - Cook II	10.08
07070 - Dishwasher	7.98
07130 - Food Service Worker	8.55
07210 - Meat Cutter	12.89
07260 - Waiter/Waitress	7.25
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	16.65
09040 - Furniture Handler	13.82
09080 - Furniture Refinisher	16.65
09090 - Furniture Refinisher Helper	13.82
09110 - Furniture Repairer, Minor	15.25
09130 - Upholsterer	17.70
11000 - General Services And Support Occupations	
11030 - Cleaner, Vehicles	10.49
11060 - Elevator Operator	8.92
11090 - Gardener	12.98
11122 - Housekeeping Aide	8.92
11150 - Janitor	9.67
11210 - Laborer, Grounds Maintenance	10.24
11240 - Maid or Houseman	7.55
11260 - Pruner	9.86
11270 - Tractor Operator	12.15
11330 - Trail Maintenance Worker	10.24
11360 - Window Cleaner	10.67
12000 - Health Occupations	
12010 - Ambulance Driver	16.18
12011 - Breath Alcohol Technician	16.18
12012 - Certified Occupational Therapist Assistant	25.05
12015 - Certified Physical Therapist Assistant	25.45
12020 - Dental Assistant	13.95
12025 - Dental Hygienist	26.11
12030 - EKG Technician	23.84
12035 - Electroneurodiagnostic Technologist	23.84
12040 - Emergency Medical Technician	16.18
12071 - Licensed Practical Nurse I	15.14
12072 - Licensed Practical Nurse II	16.93
12073 - Licensed Practical Nurse III	18.88
12100 - Medical Assistant	10.96
12130 - Medical Laboratory Technician	13.70
12160 - Medical Record Clerk	13.21
12190 - Medical Record Technician	16.14
12195 - Medical Transcriptionist	13.92
12210 - Nuclear Medicine Technologist	25.78
12221 - Nursing Assistant I	9.86
12222 - Nursing Assistant II	11.12
12223 - Nursing Assistant III	12.13
12224 - Nursing Assistant IV	13.62
12235 - Optical Dispenser	12.11
12236 - Optical Technician	11.26
12250 - Pharmacy Technician	12.34
12280 - Phlebotomist	13.62
12305 - Radiologic Technologist	22.62

12311 - Registered Nurse I	25.83	
12312 - Registered Nurse II	31.60	
12313 - Registered Nurse II, Specialist	31.60	
12314 - Registered Nurse III	38.23	
12315 - Registered Nurse III, Anesthetist	38.23	
12316 - Registered Nurse IV	45.82	
12317 - Scheduler (Drug and Alcohol Testing)		20.05
13000 - Information And Arts Occupations		
13011 - Exhibits Specialist I	16.99	
13012 - Exhibits Specialist II	20.82	
13013 - Exhibits Specialist III	25.46	
13041 - Illustrator I	16.99	
13042 - Illustrator II	20.82	
13043 - Illustrator III	25.46	
13047 - Librarian	23.18	
13050 - Library Aide/Clerk	10.03	
13054 - Library Information Technology Systems Administrator		20.94
13058 - Library Technician	12.51	
13061 - Media Specialist I	15.10	
13062 - Media Specialist II	16.90	
13063 - Media Specialist III	18.84	
13071 - Photographer I	13.47	
13072 - Photographer II	16.43	
13073 - Photographer III	19.23	
13074 - Photographer IV	23.46	
13075 - Photographer V	28.47	
13110 - Video Teleconference Technician		14.29
14000 - Information Technology Occupations		
14041 - Computer Operator I	14.77	
14042 - Computer Operator II	16.52	
14043 - Computer Operator III	18.43	
14044 - Computer Operator IV	20.48	
14045 - Computer Operator V	22.67	
14071 - Computer Programmer I	(see 1)	21.52
14072 - Computer Programmer II	(see 1)	26.05
14073 - Computer Programmer III	(see 1)	
14074 - Computer Programmer IV	(see 1)	
14101 - Computer Systems Analyst I	(see 1)	26.75
14102 - Computer Systems Analyst II	(see 1)	
14103 - Computer Systems Analyst III	(see 1)	
14150 - Peripheral Equipment Operator		14.77
14160 - Personal Computer Support Technician		20.48
15000 - Instructional Occupations		
15010 - Aircrew Training Devices Instructor (Non-Rated)		27.65
15020 - Aircrew Training Devices Instructor (Rated)		33.46
15030 - Air Crew Training Devices Instructor (Pilot)		39.29
15050 - Computer Based Training Specialist / Instructor		27.65
15060 - Educational Technologist	26.91	
15070 - Flight Instructor (Pilot)	39.29	
15080 - Graphic Artist	20.98	
15090 - Technical Instructor	18.85	
15095 - Technical Instructor/Course Developer		23.06
15110 - Test Proctor	15.22	
15120 - Tutor	15.22	

16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations		
16010 - Assembler	8.21	
16030 - Counter Attendant	8.21	
16040 - Dry Cleaner	9.65	
16070 - Finisher, Flatwork, Machine	8.21	
16090 - Presser, Hand	8.21	
16110 - Presser, Machine, Drycleaning	8.21	
16130 - Presser, Machine, Shirts	8.21	
16160 - Presser, Machine, Wearing Apparel, Laundry		8.21
16190 - Sewing Machine Operator	10.14	
16220 - Tailor	10.68	
16250 - Washer, Machine	8.61	
19000 - Machine Tool Operation And Repair Occupations		
19010 - Machine-Tool Operator (Tool Room)		18.54
19040 - Tool And Die Maker	21.95	
21000 - Materials Handling And Packing Occupations		
21020 - Forklift Operator	11.29	
21030 - Material Coordinator	23.55	
21040 - Material Expediter	23.55	
21050 - Material Handling Laborer	10.07	
21071 - Order Filler	10.37	
21080 - Production Line Worker (Food Processing)		11.29
21110 - Shipping Packer	13.35	
21130 - Shipping/Receiving Clerk	13.35	
21140 - Store Worker I	13.50	
21150 - Stock Clerk	18.20	
21210 - Tools And Parts Attendant	11.77	
21410 - Warehouse Specialist	11.77	
23000 - Mechanics And Maintenance And Repair Occupations		
23010 - Aerospace Structural Welder	25.10	
23021 - Aircraft Mechanic I	24.06	
23022 - Aircraft Mechanic II	25.10	
23023 - Aircraft Mechanic III	26.15	
23040 - Aircraft Mechanic Helper	19.17	
23050 - Aircraft, Painter	20.41	
23060 - Aircraft Servicer	21.17	
23080 - Aircraft Worker	22.11	
23110 - Appliance Mechanic	19.18	
23120 - Bicycle Repairer	13.35	
23125 - Cable Splicer	20.98	
23130 - Carpenter, Maintenance	17.36	
23140 - Carpet Layer	17.64	
23160 - Electrician, Maintenance	19.38	
23181 - Electronics Technician Maintenance I		20.66
23182 - Electronics Technician Maintenance II		22.55
23183 - Electronics Technician Maintenance III		23.59
23260 - Fabric Worker	16.74	
23290 - Fire Alarm System Mechanic		17.34
23310 - Fire Extinguisher Repairer	15.82	
23311 - Fuel Distribution System Mechanic		24.91
23312 - Fuel Distribution System Operator		20.32
23370 - General Maintenance Worker		14.41
23380 - Ground Support Equipment Mechanic		24.06
23381 - Ground Support Equipment Servicer		21.17
23382 - Ground Support Equipment Worker		22.11

23391 - Gunsmith I	15.82	
23392 - Gunsmith II	17.64	
23393 - Gunsmith III	19.39	
23410 - Heating, Ventilation And Air-Conditioning Mechanic		19.18
23411 - Heating, Ventilation And Air Contditioning Mechanic (Research Facility)		20.00
23430 - Heavy Equipment Mechanic	17.79	
23440 - Heavy Equipment Operator	17.34	
23460 - Instrument Mechanic	20.98	
23465 - Laboratory/Shelter Mechanic	18.54	
23470 - Laborer	12.71	
23510 - Locksmith	17.53	
23530 - Machinery Maintenance Mechanic		21.16
23550 - Machinist, Maintenance	20.96	
23580 - Maintenance Trades Helper	13.91	
23591 - Metrology Technician I	20.98	
23592 - Metrology Technician II	21.88	
23593 - Metrology Technician III	22.78	
23640 - Millwright	19.39	
23710 - Office Appliance Repairer	16.65	
23760 - Painter, Maintenance	18.10	
23790 - Pipefitter, Maintenance	19.64	
23810 - Plumber, Maintenance	18.87	
23820 - Pneudraulic Systems Mechanic		19.39
23850 - Rigger	21.25	
23870 - Scale Mechanic	17.64	
23890 - Sheet-Metal Worker, Maintenance		23.54
23910 - Small Engine Mechanic	16.63	
23931 - Telecommunications Mechanic I	20.85	
23932 - Telecommunications Mechanic II	21.75	
23950 - Telephone Lineman	23.11	
23960 - Welder, Combination, Maintenance		18.30
23965 - Well Driller	19.15	
23970 - Woodcraft Worker	19.39	
23980 - Woodworker	15.94	
24000 - Personal Needs Occupations		
24570 - Child Care Attendant	8.99	
24580 - Child Care Center Clerk	11.21	
24610 - Chore Aide	8.36	
24620 - Family Readiness And Support Services Coordinator		11.85
24630 - Homemaker	13.71	
25000 - Plant And System Operations Occupations		
25010 - Boiler Tender	20.98	
25040 - Sewage Plant Operator	18.32	
25070 - Stationary Engineer	20.98	
25190 - Ventilation Equipment Tender	15.93	
25210 - Water Treatment Plant Operator	18.16	
27000 - Protective Service Occupations		
27004 - Alarm Monitor	14.13	
27007 - Baggage Inspector	10.84	
27008 - Corrections Officer	19.97	
27010 - Court Security Officer	19.97	
27030 - Detection Dog Handler	13.78	

27040 - Detention Officer	19.97	
27070 - Firefighter	20.34	
27101 - Guard I	10.84	
27102 - Guard II	13.78	
27131 - Police Officer I	23.49	
27132 - Police Officer II	26.10	
28000 - Recreation Occupations		
28041 - Carnival Equipment Operator	12.34	
28042 - Carnival Equipment Repairer	12.85	
28043 - Carnival Equipment Worker	10.10	
28210 - Gate Attendant/Gate Tender	12.94	
28310 - Lifeguard	11.34	
28350 - Park Attendant (Aide)	14.48	
28510 - Recreation Aide/Health Facility Attendant	10.57	
28515 - Recreation Specialist	17.94	
28630 - Sports Official	11.54	
28690 - Swimming Pool Operator	16.28	
29000 - Stevedoring/Longshoremen Occupational Services		
29010 - Blocker And Bracer	17.93	
29020 - Hatch Tender	17.93	
29030 - Line Handler	17.93	
29041 - Stevedore I	17.11	
29042 - Stevedore II	18.79	
30000 - Technical Occupations		
30010 - Air Traffic Control Specialist, Center (HFO) (see 2)	35.77	
30011 - Air Traffic Control Specialist, Station (HFO) (see 2)	24.66	
30012 - Air Traffic Control Specialist, Terminal (HFO) (see 2)	27.16	
30021 - Archeological Technician I	18.17	
30022 - Archeological Technician II	20.32	
30023 - Archeological Technician III	25.17	
30030 - Cartographic Technician	25.17	
30040 - Civil Engineering Technician	22.71	
30061 - Drafter/CAD Operator I	18.17	
30062 - Drafter/CAD Operator II	20.32	
30063 - Drafter/CAD Operator III	22.67	
30064 - Drafter/CAD Operator IV	27.89	
30081 - Engineering Technician I	15.64	
30082 - Engineering Technician II	17.56	
30083 - Engineering Technician III	19.64	
30084 - Engineering Technician IV	24.33	
30085 - Engineering Technician V	31.55	
30086 - Engineering Technician VI	36.00	
30090 - Environmental Technician	22.96	
30210 - Laboratory Technician	19.91	
30240 - Mathematical Technician	25.17	
30361 - Paralegal/Legal Assistant I	17.64	
30362 - Paralegal/Legal Assistant II	21.86	
30363 - Paralegal/Legal Assistant III	26.74	
30364 - Paralegal/Legal Assistant IV	32.35	
30390 - Photo-Optics Technician	24.33	
30461 - Technical Writer I	25.17	
30462 - Technical Writer II	30.80	
30463 - Technical Writer III	37.26	
30491 - Unexploded Ordnance (UXO) Technician I	22.74	
30492 - Unexploded Ordnance (UXO) Technician II	27.51	

30493 - Unexploded Ordnance (UXO) Technician III	32.97
30494 - Unexploded (UXO) Safety Escort	22.74
30495 - Unexploded (UXO) Sweep Personnel	22.74
30620 - Weather Observer, Combined Upper Air Or (see 3)	21.55
Surface Programs	
30621 - Weather Observer, Senior (see 3)	24.33
31000 - Transportation/Mobile Equipment Operation Occupations	
31020 - Bus Aide	11.03
31030 - Bus Driver	14.79
31043 - Driver Courier	11.98
31260 - Parking and Lot Attendant	8.91
31290 - Shuttle Bus Driver	12.80
31310 - Taxi Driver	9.28
31361 - Truckdriver, Light	12.80
31362 - Truckdriver, Medium	15.17
31363 - Truckdriver, Heavy	15.38
31364 - Truckdriver, Tractor-Trailer	15.38
99000 - Miscellaneous Occupations	
99030 - Cashier	8.97
99050 - Desk Clerk	8.99
99095 - Embalmer	21.11
99251 - Laboratory Animal Caretaker I	9.41
99252 - Laboratory Animal Caretaker II	9.88
99310 - Mortician	21.11
99410 - Pest Controller	15.36
99510 - Photofinishing Worker	11.95
99710 - Recycling Laborer	14.32
99711 - Recycling Specialist	17.01
99730 - Refuse Collector	12.97
99810 - Sales Clerk	10.96
99820 - School Crossing Guard	9.95
99830 - Survey Party Chief	18.65
99831 - Surveying Aide	12.54
99832 - Surveying Technician	15.43
99840 - Vending Machine Attendant	10.82
99841 - Vending Machine Repairer	12.50
99842 - Vending Machine Repairer Helper	10.82

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: \$4.27 per hour or \$170.80 per week or \$740.13 per month

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; and 3 weeks after 8 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year, New Year's Day, Martin Luther

King Jr's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4174)

THE OCCUPATIONS WHICH HAVE NUMBERED FOOTNOTES IN PARENTHESES RECEIVE THE FOLLOWING:

1) **COMPUTER EMPLOYEES:** Under the SCA at section 8(b), this wage determination does not apply to any employee who individually qualifies as a bona fide executive, administrative, or professional employee as defined in 29 C.F.R. Part 541. Because most Computer System Analysts and Computer Programmers who are compensated at a rate not less than \$27.63 (or on a salary or fee basis at a rate not less than \$455 per week) an hour would likely qualify as exempt computer professionals, (29 C.F.R. 541.400) wage rates may not be listed on this wage determination for all occupations within those job families. In addition, because this wage determination may not list a wage rate for some or all occupations within those job families if the survey data indicates that the prevailing wage rate for the occupation equals or exceeds \$27.63 per hour conformances may be necessary for certain nonexempt employees. For example, if an individual employee is nonexempt but nevertheless performs duties within the scope of one of the Computer Systems Analyst or Computer Programmer occupations for which this wage determination does not specify an SCA wage rate, then the wage rate for that employee must be conformed in accordance with the conformance procedures described in the conformance note included on this wage determination.

Additionally, because job titles vary widely and change quickly in the computer industry, job titles are not determinative of the application of the computer professional exemption. Therefore, the exemption applies only to computer employees who satisfy the compensation requirements and whose primary duty consists of:

- (1) The application of systems analysis techniques and procedures, including consulting with users, to determine hardware, software or system functional specifications;
- (2) The design, development, documentation, analysis, creation, testing or modification of computer systems or programs, including prototypes, based on and related to user or system design specifications;
- (3) The design, documentation, testing, creation or modification of computer programs related to machine operating systems; or
- (4) A combination of the aforementioned duties, the performance of which requires the same level of skills. (29 C.F.R. 541.400).

2) **APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL:** An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) **AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY:** If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime

(i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives.

Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations", Fifth Edition, April 2006, unless otherwise indicated. Copies of the Directory are available on the Internet. A links to the Directory may be found on the WHD home page at <http://www.dol.gov/esa/whd/> or through the Wage Determinations On-Line (WDOL) Web site at

<http://wdol.gov/>.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444 (SF 1444)}

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

- 1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).
- 2) After contract award, the contractor prepares a written report listing in order proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.
- 3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).
- 4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.
- 5) The contracting officer transmits the Wage and Hour decision to the contractor.
- 6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of

Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	Destination	Government	Destination	Government

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0001	06-DEC-2016	1	PWD CORPUS CHRISTI INSPECTOR OF RECORD 8851 OCEAN DR, BLDG. 19 CORPUS CHRISTI TX 78419-5525 361-961-3397 FOB: Destination	N44215

CLAUSES INCORPORATED BY REFERENCE

52.212-4	Contract Terms and Conditions--Commercial Items	MAY 2015
52.223-4	Recovered Material Certification	MAY 2008
52.223-5	Pollution Prevention and Right-to-Know Information	MAY 2011
52.223-10	Waste Reduction Program	MAY 2011
52.223-17	Affirmative Procurement of EPA-Designated Items in Service and Construction Contracts	MAY 2008
52.228-8	Liability and Insurance - Leased Motor Vehicles	MAY 1999
52.232-18	Availability Of Funds	APR 1984
252.209-7002	Disclosure Of Ownership Or Control By A Foreign Government	JUN 2010

252.225-7000	Buy American--Balance Of Payments Program Certificate-- Basic (Nov 2014)	NOV 2014
252.225-7020	Trade Agreements Certificate--Basic (Nov 2014)	NOV 2014
252.225-7035	Buy American--Free Trade Agreement--Balance Of Payments Program Certificate--Basic (Nov 2014)	NOV 2014
252.232-7010	Levies on Contract Payments	DEC 2006

CLAUSES INCORPORATED BY FULL TEXT

52.212-1 INSTRUCTIONS TO OFFERORS--COMMERCIAL ITEMS (OCT 2015)

(a) North American Industry Classification System (NAICS) code and small business size standard. The NAICS code and small business size standard for this acquisition appear in Block 10 of the solicitation cover sheet (SF 1449). However, the small business size standard for a concern which submits an offer in its own name, but which proposes to furnish an item which it did not itself manufacture, is 500 employees.

(b) Submission of offers. Submit signed and dated offers to the office specified in this solicitation at or before the exact time specified in this solicitation. Offers may be submitted on the SF 1449, letterhead stationery, or as otherwise specified in the solicitation. As a minimum, offers must show--

- (1) The solicitation number;
 - (2) The time specified in the solicitation for receipt of offers;
 - (3) The name, address, and telephone number of the offeror;
 - (4) A technical description of the items being offered in sufficient detail to evaluate compliance with the requirements in the solicitation. This may include product literature, or other documents, if necessary;
 - (5) Terms of any express warranty;
 - (6) Price and any discount terms;
 - (7) "Remit to" address, if different than mailing address;
 - (8) A completed copy of the representations and certifications at FAR 52.212-3 (see FAR 52.212-3(b) for those representations and certifications that the offeror shall complete electronically);
 - (9) Acknowledgment of Solicitation Amendments;
 - (10) Past performance information, when included as an evaluation factor, to include recent and relevant contracts for the same or similar items and other references (including contract numbers, points of contact with telephone numbers and other relevant information); and
 - (11) If the offer is not submitted on the SF 1449, include a statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation. Offers that fail to furnish required representations or information, or reject the terms and conditions of the solicitation may be excluded from consideration.
- (c) Period for acceptance of offers. The offeror agrees to hold the prices in its offer firm for 30 calendar days from the date specified for receipt of offers, unless another time period is specified in an addendum to the solicitation.

(d) Product samples. When required by the solicitation, product samples shall be submitted at or prior to the time specified for receipt of offers. Unless otherwise specified in this solicitation, these samples shall be submitted at no expense to the Government, and returned at the sender's request and expense, unless they are destroyed during preaward testing.

(e) Multiple offers. Offerors are encouraged to submit multiple offers presenting alternative terms and conditions or commercial items for satisfying the requirements of this solicitation. Each offer submitted will be evaluated separately.

(f) Late submissions, modifications, revisions, and withdrawals of offers:

(1) Offerors are responsible for submitting offers, and any modifications, revisions, or withdrawals, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that offers or revisions are due.

(2)(i) Any offer, modification, revision, or withdrawal of an offer received at the Government office designated in the solicitation after the exact time specified for receipt of offers is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and--

(A) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of offers; or

(B) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or

(C) If this solicitation is a request for proposals, it was the only proposal received.

(ii) However, a late modification of an otherwise successful offer, that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(3) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the offer wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(4) If an emergency or unanticipated event interrupts normal Government processes so that offers cannot be received at the Government office designated for receipt of offers by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation or other notice of an extension of the closing date, the time specified for receipt of offers will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(5) Offers may be withdrawn by written notice received at any time before the exact time set for receipt of offers. Oral offers in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile offers, offers may be withdrawn via facsimile received at any time before the exact time set for receipt of offers, subject to the conditions specified in the solicitation concerning facsimile offers. An offer may be withdrawn in person by an offeror or its authorized representative if, before the exact time set for receipt of offers, the identity of the person requesting withdrawal is established and the person signs a receipt for the offer.

(g) Contract award (not applicable to Invitation for Bids). The Government intends to evaluate offers and award a contract without discussions with offerors. Therefore, the offeror's initial offer should contain the offeror's best terms from a price and technical standpoint. However, the Government reserves the right to conduct discussions if later determined by the Contracting Officer to be necessary. The Government may reject any or all offers if such

action is in the public interest; accept other than the lowest offer; and waive informalities and minor irregularities in offers received.

(h) Multiple awards. The Government may accept any item or group of items of an offer, unless the offeror qualifies the offer by specific limitations. Unless otherwise provided in the Schedule, offers may not be submitted for quantities less than those specified. The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit prices offered, unless the offeror specifies otherwise in the offer.

(i) Availability of requirements documents cited in the solicitation. (1)(i) The GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101-29, and copies of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained for a fee by submitting a request to--GSA Federal Supply Service Specifications Section, Suite 8100, 470 East L'Enfant Plaza, SW, Washington, DC 20407, Telephone (202) 619-8925, Facsimile (202) 619-8978.

(ii) If the General Services Administration, Department of Agriculture, or Department of Veterans Affairs issued this solicitation, a single copy of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained free of charge by submitting a request to the addressee in paragraph (i)(1)(i) of this provision. Additional copies will be issued for a fee.

(2) Most unclassified Defense specifications and standards may be downloaded from the following ASSIST websites:

(i) ASSIST (<https://assist.dla.mil/online/start/>).

(ii) Quick Search (<http://quicksearch.dla.mil/>).

(iii) ASSISTdocs.com (<http://assistdocs.com>).

(3) Documents not available from ASSIST may be ordered from the Department of Defense Single Stock Point (DoDSSP) by--

(i) Using the ASSIST Shopping Wizard (<https://assist.dla.mil/wizard/index.cfm>);

(ii) Phoning the DoDSSP Customer Service Desk (215) 697-2179, Mon-Fri, 0730 to 1600 EST; or

(iii) Ordering from DoDSSP, Building 4, Section D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Telephone (215) 697-2667/2179, Facsimile (215) 697-1462.

(4) Nongovernment (voluntary) standards must be obtained from the organization responsible for their preparation, publication, or maintenance.

(j) Data Universal Numbering System (DUNS) Number. (Applies to all offers exceeding \$3,500, and offers of \$3,500 or less if the solicitation requires the Contractor to be registered in the System for Award Management (SAM) database. The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" or "DUNS +4" followed by the DUNS or DUNS +4 number that identifies the offeror's name and address. The DUNS +4 is the DUNS number plus a 4-character suffix that may be assigned at the discretion of the offeror to establish additional SAM records for identifying alternative Electronic Funds Transfer (EFT) accounts (see FAR Subpart 32.11) for the same concern. If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. An offeror within the United States may contact Dun and Bradstreet by calling 1-866-705-5711 or via the internet at <http://fedgov.dnb.com/webform>. An offeror located outside the United States must contact the local Dun and Bradstreet office for a DUNS number. The offeror should indicate that it is an offeror for a Government contract when contacting the local Dun and Bradstreet office.

(k) System for Award Management. Unless exempted by an addendum to this solicitation, by submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the SAM database prior to award, during performance and through final payment of any contract resulting from this solicitation. If the Offeror does not become registered in the SAM database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror. Offerors may obtain information on registration and annual confirmation requirements via the SAM database accessed through <https://www.acquisition.gov>.

(l) Debriefing. If a post-award debriefing is given to requesting offerors, the Government shall disclose the following information, if applicable:

- (1) The agency's evaluation of the significant weak or deficient factors in the debriefed offeror's offer.
- (2) The overall evaluated cost or price and technical rating of the successful and the debriefed offeror and past performance information on the debriefed offeror.
- (3) The overall ranking of all offerors, when any ranking was developed by the agency during source selection.
- (4) A summary of the rationale for award;
- (5) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.
- (6) Reasonable responses to relevant questions posed by the debriefed offeror as to whether source-selection procedures set forth in the solicitation, applicable regulations, and other applicable authorities were followed by the agency.

(End of provision)

52.212-2 EVALUATION--COMMERCIAL ITEMS (OCT 2014)

(a) The Government will award a contract resulting from this solicitation to the responsible offeror whose offer conforming to the solicitation will be most advantageous to the Government, price and other factors considered. The following factors shall be used to evaluate offers:

LOWEST PRICE IS THE ONLY FACTOR

Technical and past performance, when combined, are not factors.

(b) Options. The Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. The Government may determine that an offer is unacceptable if the option prices are significantly unbalanced. Evaluation of options shall not obligate the Government to exercise the option(s).

(c) A written notice of award or acceptance of an offer, mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

(End of provision)

52.212-3 OFFEROR REPRESENTATIONS AND CERTIFICATIONS--COMMERCIAL ITEMS (MAR 2016)

The Offeror shall complete only paragraph (b) of this provision if the Offeror has completed the annual representations and certification electronically via the System for Award Management (SAM) Web site accessed through <http://www.acquisition.gov>. If the Offeror has not completed the annual representations and certifications electronically, the Offeror shall complete only paragraphs (c) through (q) of this provision.

(a) Definitions. As used in this provision --

“Economically disadvantaged women-owned small business (EDWOSB) Concern” means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States and who are economically disadvantaged in accordance with 13 CFR part 127. It automatically qualifies as a women-owned small business eligible under the WOSB Program.

"Forced or indentured child labor" means all work or service-

(1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or

(2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process or penalties.

Highest-level owner means the entity that owns or controls an immediate owner of the offeror, or that owns or controls one or more entities that control an immediate owner of the offeror. No entity owns or exercises control of the highest level owner.

Immediate owner means an entity, other than the offeror, that has direct control of the offeror. Indicators of control include, but are not limited to, one or more of the following: Ownership or interlocking management, identity of interests among family members, shared facilities and equipment, and the common use of employees.

Inverted domestic corporation means a foreign incorporated entity that meets the definition of an inverted domestic corporation under 6 U.S.C. 395(b), applied in accordance with the rules and definitions of 6 U.S.C. 395(c).

Manufactured end product means any end product in product and service codes (PSCs) 1000-9999, except--

- (1) PSC 5510, Lumber and Related Basic Wood Materials;
- (2) Product or Service Group (PSG) 87, Agricultural Supplies;
- (3) PSG 88, Live Animals;
- (4) PSG 89, Subsistence;
- (5) PSC 9410, Crude Grades of Plant Materials;
- (6) PSC 9430, Miscellaneous Crude Animal Products, Inedible;
- (7) PSC 9440, Miscellaneous Crude Agricultural and Forestry Products;
- (8) PSC 9610, Ores;
- (9) PSC 9620, Minerals, Natural and Synthetic; and

(10) PSC 9630, Additive Metal Materials.

Place of manufacture means the place where an end product is assembled out of components, or otherwise made or processed from raw materials into the finished product that is to be provided to the Government. If a product is disassembled and reassembled, the place of reassembly is not the place of manufacture.

Restricted business operations means business operations in Sudan that include power production activities, mineral extraction activities, oil-related activities, or the production of military equipment, as those terms are defined in the Sudan Accountability and Divestment Act of 2007 (Pub. L. 110-174). Restricted business operations do not include business operations that the person (as that term is defined in Section 2 of the Sudan Accountability and Divestment Act of 2007) conducting the business can demonstrate--

- (1) Are conducted under contract directly and exclusively with the regional government of southern Sudan;
- (2) Are conducted pursuant to specific authorization from the Office of Foreign Assets Control in the Department of the Treasury, or are expressly exempted under Federal law from the requirement to be conducted under such authorization;
- (3) Consist of providing goods or services to marginalized populations of Sudan;
- (4) Consist of providing goods or services to an internationally recognized peacekeeping force or humanitarian organization;
- (5) Consist of providing goods or services that are used only to promote health or education; or
- (6) Have been voluntarily suspended.

Sensitive technology--

- (1) Means hardware, software, telecommunications equipment, or any other technology that is to be used specifically--
 - (i) To restrict the free flow of unbiased information in Iran; or
 - (ii) To disrupt, monitor, or otherwise restrict speech of the people of Iran; and
- (2) Does not include information or informational materials the export of which the President does not have the authority to regulate or prohibit pursuant to section 203(b)(3) of the International Emergency Economic Powers Act (50 U.S.C. 1702(b)(3)).

Service-disabled veteran-owned small business concern--

- (1) Means a small business concern--
 - (i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and
 - (ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

Small disadvantaged business concern, consistent with 13 CFR 124.1002, means a small business concern under the size standard applicable to the acquisition, that--

(1) Is at least 51 percent unconditionally and directly owned (as defined at 13 CFR 124.105) by--

(i) One or more socially disadvantaged (as defined at 13 CFR 124.103) and economically disadvantaged (as defined at 13 CFR 124.104) individuals who are citizens of the United States; and

(ii) Each individual claiming economic disadvantage has a net worth not exceeding \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(2) The management and daily business operations of which are controlled (as defined at 13.CFR 124.106) by individuals, who meet the criteria in paragraphs (1)(i) and (ii) of this definition.

Subsidiary means an entity in which more than 50 percent of the entity is owned--

(1) Directly by a parent corporation; or

(2) Through another subsidiary of a parent corporation.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned business concern" means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

"Women-owned small business concern" means a small business concern--

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; or

(2) Whose management and daily business operations are controlled by one or more women.

Women-owned small business (WOSB) concern eligible under the WOSB Program (in accordance with 13 CFR part 127)", means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States.

(b) (1) Annual Representations and Certifications. Any changes provided by the offeror in paragraph (b)(2) of this provision do not automatically change the representations and certifications posted electronically on the SAM website.

(2) The offeror has completed the annual representations and certifications electronically via the SAM website accessed through <https://www.acquisition.gov>. After reviewing the SAM database information, the offeror verifies by submission of this offer that the representations and certifications currently posted electronically at FAR 52.212-3, Offeror Representations and Certifications--Commercial Items, have been entered or updated in the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201), except for paragraphs ____ .

[Offeror to identify the applicable paragraphs at (c) through (q) of this provision that the offeror has completed for the purposes of this solicitation only, if any.) These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer. Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted electronically on ORCA.]

(c) Offerors must complete the following representations when the resulting contract will be performed in the United States or its outlying areas. Check all that apply.

(1) Small business concern. The offeror represents as part of its offer that it (____) is, (____) is not a small business concern.

(2) Veteran-owned small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents as part of its offer that it (____) is, (____) is not a veteran-owned small business concern.

(3) Service-disabled veteran-owned small business concern. (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(2) of this provision.) The offeror represents as part of its offer that it (____) is, (____) is not a service-disabled veteran-owned small business concern.

(4) Small disadvantaged business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it (____) is, (____) is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(5) Women-owned small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it (____) is, (____) is not a women-owned small business concern.

Note to paragraphs (c)(8) and (9): Complete paragraphs (c)(8) and (c)(9) only if this solicitation is expected to exceed the simplified acquisition threshold.

(6) WOSB concern eligible under the WOSB Program. [Complete only if the offeror represented itself as a women-owned small business concern in paragraph (c)(5) of this provision.] The offeror represents that--

(i) It [____] is, [____] is not a WOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It [____] is, [____] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (c)(6)(i) of this provision is accurate for each WOSB concern eligible under the WOSB Program participating in the joint venture. [The offeror shall enter the name or names of the WOSB concern eligible under the WOSB Program and other small businesses that are participating in the joint venture: ____ .] Each WOSB concern eligible under the WOSB Program participating in the joint venture shall submit a separate signed copy of the WOSB representation.

(7) Economically disadvantaged women-owned small business (EDWOSB) concern. [Complete only if the offeror represented itself as a WOSB concern eligible under the WOSB Program in (c)(6) of this provision.] The offeror represents that--

(i) It [___] is, [___] is not an EDWOSB concern, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It [___] is, [___] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (c)(7)(i) of this provision is accurate for each EDWOSB concern participating in the joint venture. [The offeror shall enter the name or names of the EDWOSB concern and other small businesses that are participating in the joint venture: ___ -.] Each EDWOSB concern participating in the joint venture shall submit a separate signed copy of the EDWOSB representation.

(8) Women-owned business concern (other than small business concern). (Complete only if the offeror is a women-owned business concern and did not represent itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it (___) is, a women-owned business concern.

(9) Tie bid priority for labor surplus area concerns. If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

—

(10) HUBZone small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents, as part of its offer, that--

(i) It [___] is, [___] is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material changes in ownership and control, principal office, or HUBZone employee percentage have occurred since it was certified in accordance with 13 CFR Part 126; and

(ii) It [___] is, [___] is not a HUBZone joint venture that complies with the requirements of 13 CFR Part 126, and the representation in paragraph (c)(10)(i) of this provision is accurate for each HUBZone small business concern participating in the HUBZone joint venture. [The offeror shall enter the names of each of the HUBZone small business concerns participating in the HUBZone joint venture: ___ .] Each HUBZone small business concern participating in the HUBZone joint venture shall submit a separate signed copy of the HUBZone representation.

(d) Certifications and representations required to implement provisions of Executive Order 11246--

(1) Previous Contracts and Compliance. The offeror represents that--

(i) It (___) has, (___) has not, participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the and

(ii) It (___) has, (___) has not, filed all required compliance reports.

(2) Affirmative Action Compliance. The offeror represents that--

(i) It (___) has developed and has on file, (___) has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Subparts 60-1 and 60-2), or

(ii) It (___) has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352). (Applies only if the contract is expected to exceed \$150,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract. If any registrants under the Lobbying Disclosure Act of 1995 have made a lobbying contact on behalf of the offeror with respect to this contract, the offeror shall complete and submit, with its offer, OMB Standard Form LLL, Disclosure of Lobbying Activities, to provide the name of the registrants. The offeror need not report regularly employed officers or employees of the offeror to whom payments of reasonable compensation were made.

(f) Buy American Certificate. (Applies only if the clause at Federal Acquisition Regulation (FAR) 52.225-1, Buy American --Supplies, is included in this solicitation.)

(1) The offeror certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product and that for other than COTS items, the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products, i.e., an end product that is not a COTS item and does not meet the component test in paragraph (2) of the definition of "domestic end product." The terms "commercially available off-the-shelf (COTS) item," "component," "domestic end product," "end product," "foreign end product," and "United States" are defined in the clause of this solicitation entitled "Buy American--Supplies."

(2) Foreign End Products:

Line Item No.	Country of Origin
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(List as necessary)

(3) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(g)(1) Buy American--Free Trade Agreements--Israeli Trade Act Certificate. (Applies only if the clause at FAR 52.225-3, Buy American--Free Trade Agreements--Israeli Trade Act, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(1)(ii) or (g)(1)(iii) of this provision, is a domestic end product and that for other than COTS items, the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The terms "Bahrainian, Moroccan, Omani, Panamanian, or Peruvian end product," "commercially available off-the-shelf (COTS) item," "component," "domestic end product," "end product," "foreign end product," "Free Trade Agreement country," "Free Trade Agreement country end product," "Israeli end product," and "United States" are defined in the clause of this solicitation entitled "Buy American--Free Trade Agreements--Israeli Trade Act."

(ii) The offeror certifies that the following supplies are Free Trade Agreement country end products (other than Bahrainian, Moroccan, Omani, Panamanian, or Peruvian end products) or Israeli end products as defined in the clause of this solicitation entitled "Buy American--Free Trade Agreements--Israeli Trade Act":

Free Trade Agreement Country End Products (Other than Bahrainian, Moroccan, Omani, Panamanian, or Peruvian End Products) or Israeli End Products:

Line Item No.	Country of Origin
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[List as necessary]

(iii) The offeror shall list those supplies that are foreign end products (other than those listed in paragraph (g)(1)(ii) of this provision) as defined in the clause of this solicitation entitled "Buy American-Free Trade Agreements-Israeli Trade Act." The offeror shall list as other foreign end products those end products manufactured in the United States that do not qualify as domestic end products, i.e., an end product that is not a COTS item and does not meet the component test in paragraph (2) of the definition of "domestic end product."

Other Foreign End Products:

Line Item No.	Country of Origin
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[List as necessary]

(iv) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25. (2) *Buy American Act-Free Trade Agreements-Israeli Trade Act Certificate, Alternate I (Jan 2004)*. If Alternate I to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products as defined in the clause of this solicitation entitled "Buy American -Free Trade Agreements-Israeli Trade Act":

Canadian End Products:

Line Item No.

[List as necessary]

(3) Buy American-Free Trade Agreements-Israeli Trade Act Certificate, Alternate II (Jan 2004). If Alternate II to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products or Israeli end products as defined in the clause of this solicitation entitled "Buy American-Free Trade Agreements-Israeli Trade Act":

Canadian or Israeli End Products:

Line Item No.	Country of Origin
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---	---

[List as necessary]

(4) Buy American--Free Trade Agreements--Israeli Trade Act Certificate, Alternate III. If Alternate III to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Free Trade Agreement country end products (other than Bahrainian, Korean, Moroccan, Omani, Panamanian, or Peruvian end products) or Israeli end products as defined in the clause of this solicitation entitled ``Buy American --Free Trade Agreements--Israeli Trade Act":

Free Trade Agreement Country End Products (Other than Bahrainian, Korean, Moroccan, Omani, Panamanian, or Peruvian End Products) or Israeli End Products:

Line Item No.	Country of Origin
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—	—
—	—

[List as necessary]

(5) Trade Agreements Certificate. (Applies only if the clause at FAR 52.225-5, Trade Agreements, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(5)(ii) of this provision, is a U.S.-made or designated country end product, as defined in the clause of this solicitation entitled "Trade Agreements".

(ii) The offeror shall list as other end products those end products that are not U.S.-made or designated country end products.

Other End Products:

Line Item No.	Country of Origin
—	—
—	—
—	—

[List as necessary]

(iii) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25. For line items covered by the WTO GPA, the Government will evaluate offers of U.S.-made or designated country end products without regard to the restrictions of the Buy American statute. The Government will consider for award only offers of U.S.-made or designated country end products unless the Contracting Officer determines that there are no offers for such products or that the offers for such products are insufficient to fulfill the requirements of the solicitation.

(h) *Certification Regarding Responsibility Matters (Executive Order 12689)*. (Applies only if the contract value is expected to exceed the simplified acquisition threshold.) The offeror certifies, to the best of its knowledge and belief, that the offeror and/or any of its principals--

(1) [___] Are, [___] are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(2) [___] Have, [___] have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating Federal criminal tax laws, or receiving stolen property; and

(3) [____] Are, [____] are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses enumerated in paragraph (h)(2) of this clause; and

(4) [____] Have, [____] have not, within a three-year period preceding this offer, been notified of any delinquent Federal taxes in an amount that exceeds \$3,500 for which the liability remains unsatisfied.

(i) Taxes are considered delinquent if both of the following criteria apply:

(A) *The tax liability is finally determined.* The liability is finally determined if it has been assessed. A liability is not finally determined if there is a pending administrative or judicial challenge. In the case of a judicial challenge to the liability, the liability is not finally determined until all judicial appeal rights have been exhausted.

(B) *The taxpayer is delinquent in making payment.* A taxpayer is delinquent if the taxpayer has failed to pay the tax liability when full payment was due and required. A taxpayer is not delinquent in cases where enforced collection action is precluded.

(ii) Examples.

(A) The taxpayer has received a statutory notice of deficiency, under I.R.C. §6212, which entitles the taxpayer to seek Tax Court review of a proposed tax deficiency. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek Tax Court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(B) The IRS has filed a notice of Federal tax lien with respect to an assessed tax liability, and the taxpayer has been issued a notice under I.R.C. §6320 entitling the taxpayer to request a hearing with the IRS Office of Appeals Contesting the lien filing, and to further appeal to the Tax Court if the IRS determines to sustain the lien filing. In the course of the hearing, the taxpayer is entitled to contest the underlying tax liability because the taxpayer has had no prior opportunity to contest the liability. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek tax court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(C) The taxpayer has entered into an installment agreement pursuant to I.R.C. §6159. The taxpayer is making timely payments and is in full compliance with the agreement terms. The taxpayer is not delinquent because the taxpayer is not currently required to make full payment.

(D) The taxpayer has filed for bankruptcy protection. The taxpayer is not delinquent because enforced collection action is stayed under 11 U.S.C. §362 (the Bankruptcy Code).

(i) Certification Regarding Knowledge of Child Labor for *Listed End Products (Executive Order 13126)*. [*The Contracting Officer must list in paragraph (i)(1) any end products being acquired under this solicitation that are included in the List of Products Requiring Contractor Certification as to Forced or Indentured Child Labor, unless excluded at [22.1503\(b\)](#).*]

(1) *Listed end products.*

Listed End Product	Listed Countries of Origin
—	—
—	—
—	—

(2) *Certification.* [If the Contracting Officer has identified end products and countries of origin in paragraph (i)(1) of this provision, then the offeror must certify to either (i)(2)(i) or (i)(2)(ii) by checking the appropriate block.]

[] (i) The offeror will not supply any end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product.

[] (ii) The offeror may supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that it has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or manufacture any such end product furnished under this contract. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

(j) *Place of manufacture.* (Does not apply unless the solicitation is predominantly for the acquisition of manufactured end products.) For statistical purposes only, the offeror shall indicate whether the place of manufacture of the end products it expects to provide in response to this solicitation is predominantly—

(1) () In the United States (Check this box if the total anticipated price of offered end products manufactured in the United States exceeds the total anticipated price of offered end products manufactured outside the United States); or

(2) () Outside the United States.

(j) *Place of manufacture.* (Does not apply unless the solicitation is predominantly for the acquisition of manufactured end products.) For statistical purposes only, the offeror shall indicate whether the place of manufacture of the end products it expects to provide in response to this solicitation is predominantly--

(1) () In the United States (Check this box if the total anticipated price of offered end products manufactured in the United States exceeds the total anticipated price of offered end products manufactured outside the United States); or

(2) () Outside the United States.

(k) *Certificates regarding exemptions from the application of the Service Contract Labor Standards.* (Certification by the offeror as to its compliance with respect to the contract also constitutes its certification as to compliance by its subcontractor if it subcontracts out the exempt services.)

[The contracting officer is to check a box to indicate if paragraph (k)(1) or (k)(2) applies.]

[____] (1) Maintenance, calibration, or repair of certain equipment as described in FAR 22.1003-4(c)(1). The offeror (____) does (____) does not certify that—

(i) The items of equipment to be serviced under this contract are used regularly for other than Governmental purposes and are sold or traded by the offeror (or subcontractor in the case of an exempt subcontract) in substantial quantities to the general public in the course of normal business operations;

(ii) The services will be furnished at prices which are, or are based on, established catalog or market prices (see FAR 22.1003-4(c)(2)(ii)) for the maintenance, calibration, or repair of such equipment; and

(iii) The compensation (wage and fringe benefits) plan for all service employees performing work under the contract will be the same as that used for these employees and equivalent employees servicing the same equipment of commercial customers.

[____] (2) Certain services as described in FAR 22.1003-4(d)(1). The offeror (____) does (____) does not certify that—

(i) The services under the contract are offered and sold regularly to non-Governmental customers, and are provided by the offeror (or subcontractor in the case of an exempt subcontract) to the general public in substantial quantities in the course of normal business operations;

(ii) The contract services will be furnished at prices that are, or are based on, established catalog or market prices (see FAR 22.1003-4(d)(2)(iii));

(iii) Each service employee who will perform the services under the contract will spend only a small portion of his or her time (a monthly average of less than 20 percent of the available hours on an annualized basis, or less than 20 percent of available hours during the contract period if the contract period is less than a month) servicing the Government contract; and

(iv) The compensation (wage and fringe benefits) plan for all service employees performing work under the contract is the same as that used for these employees and equivalent employees servicing commercial customers.

(3) If paragraph (k)(1) or (k)(2) of this clause applies—

(i) If the offeror does not certify to the conditions in paragraph (k)(1) or (k)(2) and the Contracting Officer did not attach a Service Contract Labor Standards wage determination to the solicitation, the offeror shall notify the Contracting Officer as soon as possible; and

(ii) The Contracting Officer may not make an award to the offeror if the offeror fails to execute the certification in paragraph (k)(1) or (k)(2) of this clause or to contact the Contracting Officer as required in paragraph (k)(3)(i) of this clause.

(l) Taxpayer Identification Number (TIN) (26 U.S.C. 6109, 31 U.S.C. 7701). (Not applicable if the offeror is required to provide this information to the SAM database to be eligible for award.)

(1) All offerors must submit the information required in paragraphs (l)(3) through (l)(5) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the Internal Revenue Service (IRS).

(2) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(3) Taxpayer Identification Number (TIN).

(___) TIN: -----.

(___) TIN has been applied for.

(___) TIN is not required because:

(___) Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

(___) Offeror is an agency or instrumentality of a foreign government;

(___) Offeror is an agency or instrumentality of the Federal Government.

(4) Type of organization.

(___) Sole proprietorship;

(___) Partnership;

(___) Corporate entity (not tax-exempt);

(___) Corporate entity (tax-exempt);

(___) Government entity (Federal, State, or local);

(___) Foreign government;

(___) International organization per 26 CFR 1.6049-4;

(___) Other -----.

(5) Common parent.

(___) Offeror is not owned or controlled by a common parent;

(___) Name and TIN of common parent:

Name - ___ .

TIN - ___ .

(m) Restricted business operations in Sudan. By submission of its offer, the offeror certifies that the offeror does not conduct any restricted business operations in Sudan.

(n) Prohibition on Contracting with Inverted Domestic Corporations—

(1) Government agencies are not permitted to use appropriated (or otherwise made available) funds for contracts with either an inverted domestic corporation, or a subsidiary of an inverted domestic corporation, unless the exception at 9.108-2(b) applies or the requirement is waived in accordance with the procedures at 9.108-4.

(2) Representation. By submission of its offer, the offeror represents that--

(i) It is not an inverted domestic corporation; and

(ii) It is not a subsidiary of an inverted domestic corporation.

(o) Prohibition on contracting with entities engaging in certain activities or transactions relating to Iran.

(1) The offeror shall email questions concerning sensitive technology to the Department of State at CISADA106@state.gov.

(2) Representation. The Offeror represents that--

(i) It [___] is, [___] is not an inverted domestic corporation; and

(ii) It [___] is, [___] is not a subsidiary of an inverted domestic corporation.

(3) The representation and certification requirements of paragraph (o)(2) of this provision do not apply if—

(i) This solicitation includes a trade agreements certification (e.g., 52.212-3(g) or a comparable agency provision); and

(ii) The offeror has certified that all the offered products to be supplied are designated country end products.

(p) *Ownership or Control of Offeror.* (Applies in all solicitations when there is a requirement to be registered in SAM or a requirement to have a DUNS Number in the solicitation.

(1) The Offeror represents that it [___] has or [___] does not have an immediate owner. If the Offeror has more than one immediate owner (such as a joint venture), then the Offeror shall respond to paragraph (2) and if applicable, paragraph (3) of this provision for each participant in the joint venture.

(2) If the Offeror indicates “has” in paragraph (p)(1) of this provision, enter the following information:

Immediate owner CAGE code: ____

Immediate owner legal name: ____

(Do not use a “doing business as” name)

Is the immediate owner owned or controlled by another entity:

[___] Yes or [___] No.

(3) If the Offeror indicates “yes” in paragraph (p)(2) of this provision, indicating that the immediate owner is owned or controlled by another entity, then enter the following information:

Highest level owner CAGE code: ____

Highest level owner legal name: ____

(Do not use a “doing business as” name)

(q) Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law.

(1) As required by section 744 and 745 of Division E of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235), and similar provisions, if contained in subsequent appropriations acts, the Government will not enter into a contract with any corporation that—

(i) Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless and agency has considered suspension or debarment of the corporation and made a determination that suspension or debarment is not necessary to protect the interests of the Government; or

(ii) Was convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless an agency has considered suspension or debarment of the corporation and made a determination that this action is not necessary to protect the interests of the Government.

(2) The Offeror represents that--

(i) It is [____] is not [____] a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and

(ii) It is [____] is not [____] a corporation that was convicted of a felony criminal violation under a Federal law within the preceding 24 months.

(End of provision)

52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (MAR 2016)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.209-10, Prohibition on Contracting with Inverted Domestic Corporations (Nov 2015).

(2) 52.233-3, Protest After Award (AUG 1996) (31 U.S.C. 3553).

(3) 52.233-4, Applicable Law for Breach of Contract Claim (OCT 2004) (Public Laws 108-77 and 108-78 (19 U.S.C. 3805 note)).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: (Contracting Officer check as appropriate.)

___ (1) 52.203-6, Restrictions on Subcontractor Sales to the Government (Sept 2006), with Alternate I (Oct 1995) (41 U.S.C. 4704 and 10 U.S.C. 2402).

___ (2) 52.203-13, Contractor Code of Business Ethics and Conduct (Oct 2015) (41 U.S.C. 3509).

___ (3) 52.203-15, Whistleblower Protections under the American Recovery and Reinvestment Act of 2009 (June 2010) (Section 1553 of Pub. L. 111-5). (Applies to contracts funded by the American Recovery and Reinvestment Act of 2009.)

___ (4) 52.204-10, Reporting Executive Compensation and First-Tier Subcontract Awards (Oct 2015) (Pub. L. 109-282) (31 U.S.C. 6101 note).

___ (5) [Reserved]

___ (6) 52.204-14, Service Contract Reporting Requirements (JAN 2014) (Pub. L. 111-117, section 743 of Div. C).

___ (7) 52.204-15, Service Contract Reporting Requirements for Indefinite-Delivery Contracts (JAN 2014) (Pub. L. 111-117, section 743 of Div. C).

___ (8) 52.209-6, Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment. (Oct 2015) (31 U.S.C. 6101 note).

___ (9) 52.209-9, Updates of Publicly Available Information Regarding Responsibility Matters (July 2013) (41 U.S.C. 2313).

___ (10) [Reserved]

___ (11)(i) 52.219-3, Notice of HUBZone Set-Aside or Sole-Source Award (NOV 2011) (15 U.S.C. 657a).

___ (ii) Alternate I (NOV 2011) of 52.219-3.

___ (12) (i) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (OCT 2014) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).

___ (ii) Alternate I (JAN 2011) of 52.219-4.

___ (13) [Reserved]

___ (14)(i) 52.219-6, Notice of Total Small Business Set-Aside (NOV 2011) (15 U.S.C. 644).

___ (ii) Alternate I (NOV 2011).

- ____ (iii) Alternate II (NOV 2011).
- ____ (15)(i) 52.219-7, Notice of Partial Small Business Set-Aside (June 2003) (15 U.S.C. 644).
- ____ (ii) Alternate I (Oct 1995) of 52.219-7.
- ____ (iii) Alternate II (Mar 2004) of 52.219-7.
- ____ (16) 52.219-8, Utilization of Small Business Concerns (OCT 2014) (15 U.S.C. 637(d)(2) and (3)).
- ____ (17)(i) 52.219-9, Small Business Subcontracting Plan (Oct 2015) (15 U.S.C. 637(d)(4)).
- ____ (ii) Alternate I (Oct 2001) of 52.219-9.
- ____ (iii) Alternate II (Oct 2001) of 52.219-9.
- ____ (iv) Alternate III (Oct 2015) of 52.219-9.
- ____ (18) 52.219-13, Notice of Set-Aside of Orders (NOV 2011) (15 U.S.C. 644(r)).
- ____ (19) 52.219-14, Limitations on Subcontracting (NOV 2011) (15 U.S.C. 637(a)(14)).
- ____ (20) 52.219-16, Liquidated Damages—Subcontracting Plan (Jan 1999) (15 U.S.C. 637(d)(4)(F)(i)).
- ____ (21) 52.219-27, Notice of Service-Disabled Veteran-Owned Small Business Set-Aside (NOV 2011) (15 U.S.C. 657f).
- ____ (22) 52.219-28, Post Award Small Business Program Rerepresentation (July 2013) (15 U.S.C. 632(a)(2)).
- ____ (23) 52.219-29, Notice of Set-Aside for, or Sole Source Award to, Economically Disadvantaged Women-Owned Small Business Concerns (Dec 2015) (15 U.S.C. 637(m)).
- ____ (24) 52.219-30, Notice of Set-Aside for, or Sole Source Award to, Women-Owned Small Business Concerns Eligible Under the Women-Owned Small Business Program (Dec 2015) (15 U.S.C. 637(m)).
- ____ (25) 52.222-3, Convict Labor (June 2003) (E.O. 11755).
- ____ (26) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (FEB 2016) (E.O. 13126).
- ____ (27) 52.222-21, Prohibition of Segregated Facilities (Apr 2015).
- ____ (28) 52.222-26, Equal Opportunity (Apr 2015) (E.O. 11246).
- ____ (29) 52.222-35, Equal Opportunity for Veterans (Oct 2015) (38 U.S.C. 4212).
- ____ (30) 52.222-36, Equal Opportunity for Workers with Disabilities (July 2014) (29 U.S.C. 793).
- ____ (31) 52.222-37, Employment Reports on Veterans (FEB 2016) (38 U.S.C. 4212).
- ____ (32) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (Dec 2010) (E.O. 13496).
- ____ (33)(i) 52.222-50, Combating Trafficking in Persons (March 2, 2015) (22 U.S.C. chapter 78 and E.O. 13627).

- ____ (ii) Alternate I (March 2, 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).
- ____ (34) 52.222-54, Employment Eligibility Verification (Oct 2015). (E. O. 12989). (Not applicable to the acquisition of commercially available off-the-shelf items or certain other types of commercial items as prescribed in 22.1803.)
- ____ (35)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Items (May 2008) (42 U.S.C. 6962(c)(3)(A)(ii)). (Not applicable to the acquisition of commercially available off-the-shelf items.)
- ____ (ii) Alternate I (May 2008) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)). (Not applicable to the acquisition of commercially available off-the-shelf items.)
- ____ (36) (i) 52.223-13, Acquisition of EPEAT® Registered Imaging Equipment (Jun 2014) (E.O.s 13423 and 13514).
- ____ (ii) Alternate I (OCT 2015) of 52.223-13.
- ____ (37)(i) 52.223-14, Acquisition of EPEAT® Registered Televisions (Jun 2014) (E.O.s 13423 and 13514).
- ____ (ii) Alternate I (Jun 2014) of 52.223-14.
- ____ (38) 52.223-15, Energy Efficiency in Energy-Consuming Products (Dec 2007) (42 U.S.C. 8259b).
- ____ (39)(i) 52.223-16, Acquisition of EPEAT[supreg]-Registered Personal Computer Products (OCT 2015) (E.O.s 13423 and 13514).
- ____ (ii) Alternate I (Jun 2014) of 52.223-16.
- ____ (40) 52.223-18, Encouraging Contractor Policies to Ban Text Messaging While Driving (Aug 2011) (E.O. 13513).
- ____ (41) 52.225-1, Buy American--Supplies (May 2014) (41 U.S.C. chapter 83).
- ____ (42) (i) 52.225-3, Buy American--Free Trade Agreements--Israeli Trade Act (May 2014) (41 U.S.C. chapter 83, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, 19 U.S.C. 3805 note, 19 U.S.C. 4001 note, Pub. L. 103-182, 108-77, 108-78, 108-286, 108-302, 109-53, 109-169, 109-283, 110-138, 112-41, 112-42, and 112-43).
- ____ (ii) Alternate I (May 2014) of 52.225-3.
- ____ (iii) Alternate II (May 2014) of 52.225-3.
- ____ (iv) Alternate III (May 2014) of 52.225-3.
- ____ (43) 52.225-5, Trade Agreements (FEB 2016) (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).
- ____ (44) 52.225-13, Restrictions on Certain Foreign Purchases (June 2008) (E.O.'s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).
- ____ (45) 52.225-26, Contractors Performing Private Security Functions Outside the United States (Jul 2013) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).
- ____ (46) 52.226-4, Notice of Disaster or Emergency Area Set-Aside (Nov 2007) (42 U.S.C. 5150)

____ (47) 52.226-5, Restrictions on Subcontracting Outside Disaster or Emergency Area (Nov 2007) (42 U.S.C. 5150).

____ (48) 52.232-29, Terms for Financing of Purchases of Commercial Items (Feb 2002) (41 U.S.C. 4505, 10 U.S.C. 2307(f)).

____ (49) 52.232-30, Installment Payments for Commercial Items (Oct 1995) (41 U.S.C. 4505, 10 U.S.C. 2307(f)).

____ (50) 52.232-33, Payment by Electronic Funds Transfer—System for Award Management (July 2013) (31 U.S.C. 3332).

____ (51) 52.232-34, Payment by Electronic Funds Transfer—Other than System for Award Management (July 2013) (31 U.S.C. 3332).

____ (52) 52.232-36, Payment by Third Party (MAY 2014) (31 U.S.C. 3332).

____ (53) 52.239-1, Privacy or Security Safeguards (Aug 1996) (5 U.S.C. 552a).

____ (54)(i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631).

____ (ii) Alternate I (Apr 2003) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: (Contracting Officer check as appropriate.)

____ (1) 52.222-17, Nondisplacement of Qualified Workers (May 2014) (E.O. 13495).

____ (2) 52.222-41, Service Contract Labor Standards (MAY 2014) (41 U.S.C. chapter 67).

____ (3) 52.222-42, Statement of Equivalent Rates for Federal Hires (MAY 2014) (29 U.S.C. 206 and 41 U.S.C. chapter 67).

____ (4) 52.222-43, Fair Labor Standards Act and Service Contract Labor Standards--Price Adjustment (Multiple Year and Option Contracts) (MAY 2014) (29 U.S.C. 206 and 41 U.S.C. chapter 67).

____ (5) 52.222-44, Fair Labor Standards Act and Service Contract Labor Standards--Price Adjustment (MAY 2014) (29 U.S.C. 206 and 41 U.S.C. chapter 67).

____ (6) 52.222-51, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (MAY 2014) (41 U.S.C. chapter 67).

____ (7) 52.222-53, Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Requirements (MAY 2014) (41 U.S.C. chapter 67).

____ (8) 52.222-55, Minimum Wages Under Executive Order 13658 (DEC 2015) (E.O. 13658).

____ (9) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations (MAY 2014) (42 U.S.C. 1792).

____ (10) 52.237-11, Accepting and Dispensing of \$1 Coin (Sept 2008) (31 U.S.C. 5112(p)(1)).

(d) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) (1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (e)(1) in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause—

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (Oct 2015) (41 U.S.C. 3509).

(ii) 52.219-8, Utilization of Small Business Concerns (OCT 2014) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$700,000 (\$1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(iii) 52.222-17, Nondisplacement of Qualified Workers (MAY 2014) (E.O. 13495). Flow down required in accordance with paragraph (l) of FAR clause 52.222-17.

(iv) 52.222-21, Prohibition of Segregated Facilities (Apr 2015).

(v) 52.222-26, Equal Opportunity (APR 2015) (E.O. 11246).

(vi) 52.222-35, Equal Opportunity for Veterans (Oct 2015) (38 U.S.C. 4212).

(vii) 52.222-36, Equal Opportunity for Workers with Disabilities (Jul 2014) (29 U.S.C. 793).

(viii) 52.222-37, Employment Reports on Veterans (Feb 2016) (38 U.S.C. 4212).

(ix) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (Dec 2010) (E.O. 13496). Flow down required in accordance with paragraph (f) of FAR clause 52.222-40.

(x) 52.222-41, Service Contract Labor Standards (May 2014), (41 U.S.C. chapter 67).

(xi) _____ (A) 52.222-50, Combating Trafficking in Persons (March 2, 2015) (22 U.S.C. chapter 78 and E.O. 13627).

_____ (B) Alternate I (March 2, 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).

(xii) 52.222-51, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (May 2014) (41 U.S.C. chapter 67.)

(xiii) 52.222-53, Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Requirements (May 2014) (41 U.S.C. chapter 67)

(xiv) 52.222-54, Employment Eligibility Verification (Oct 2015) (E. O. 12989).

(xv) 52.222-55, Minimum Wages Under Executive Order 13658 (Dec 2015) (E.O. 13658).

(xvi) 52.225-26, Contractors Performing Private Security Functions Outside the United States (Jul 2013) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).

(xvii) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations. (May 2014) (42 U.S.C. 1792). Flow down required in accordance with paragraph (e) of FAR clause 52.226-6.

(xviii) 52.247-64, Preference for Privately-Owned U.S. Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the Contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of clause)

52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997)

(a) "Hazardous material", as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

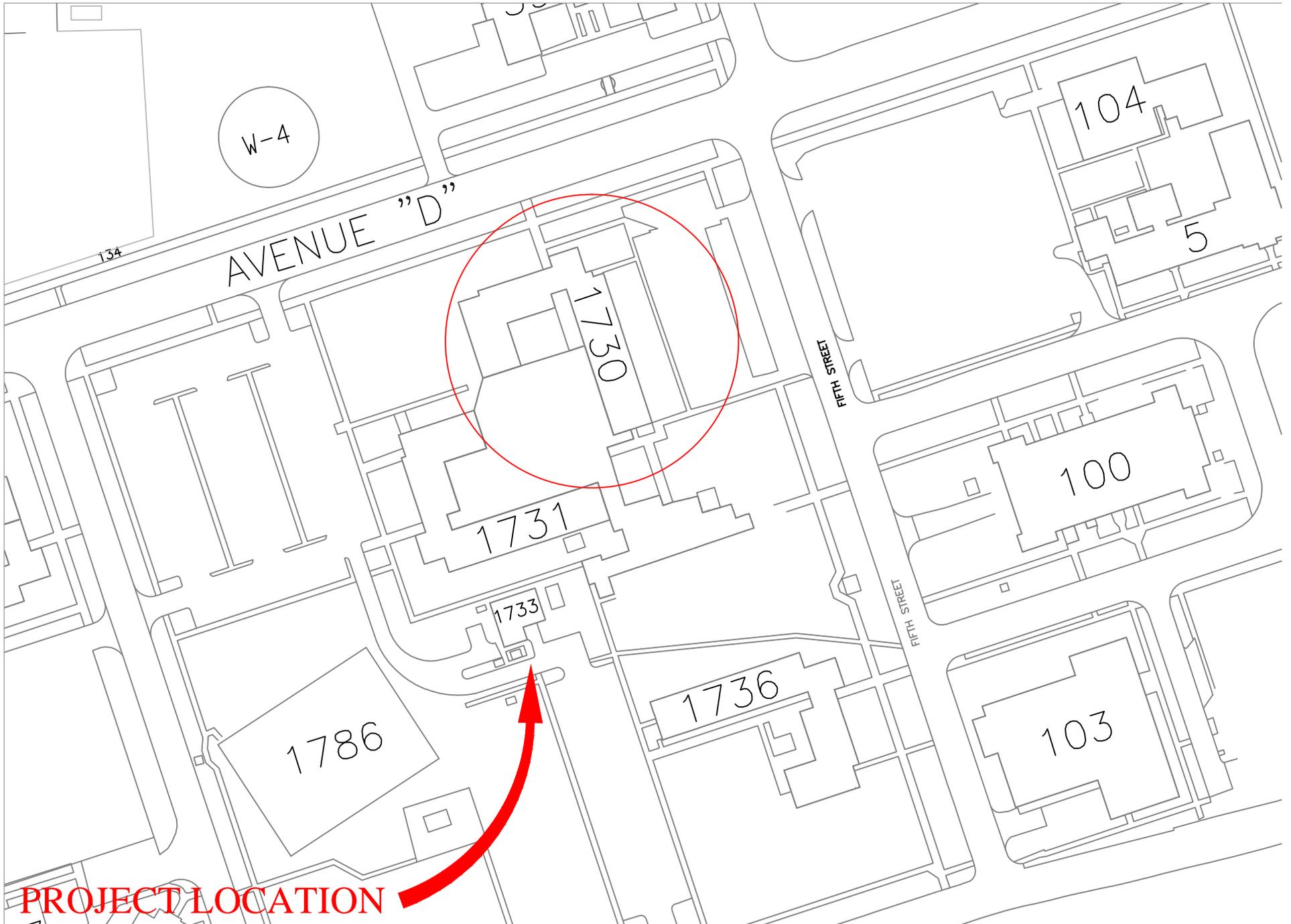
(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

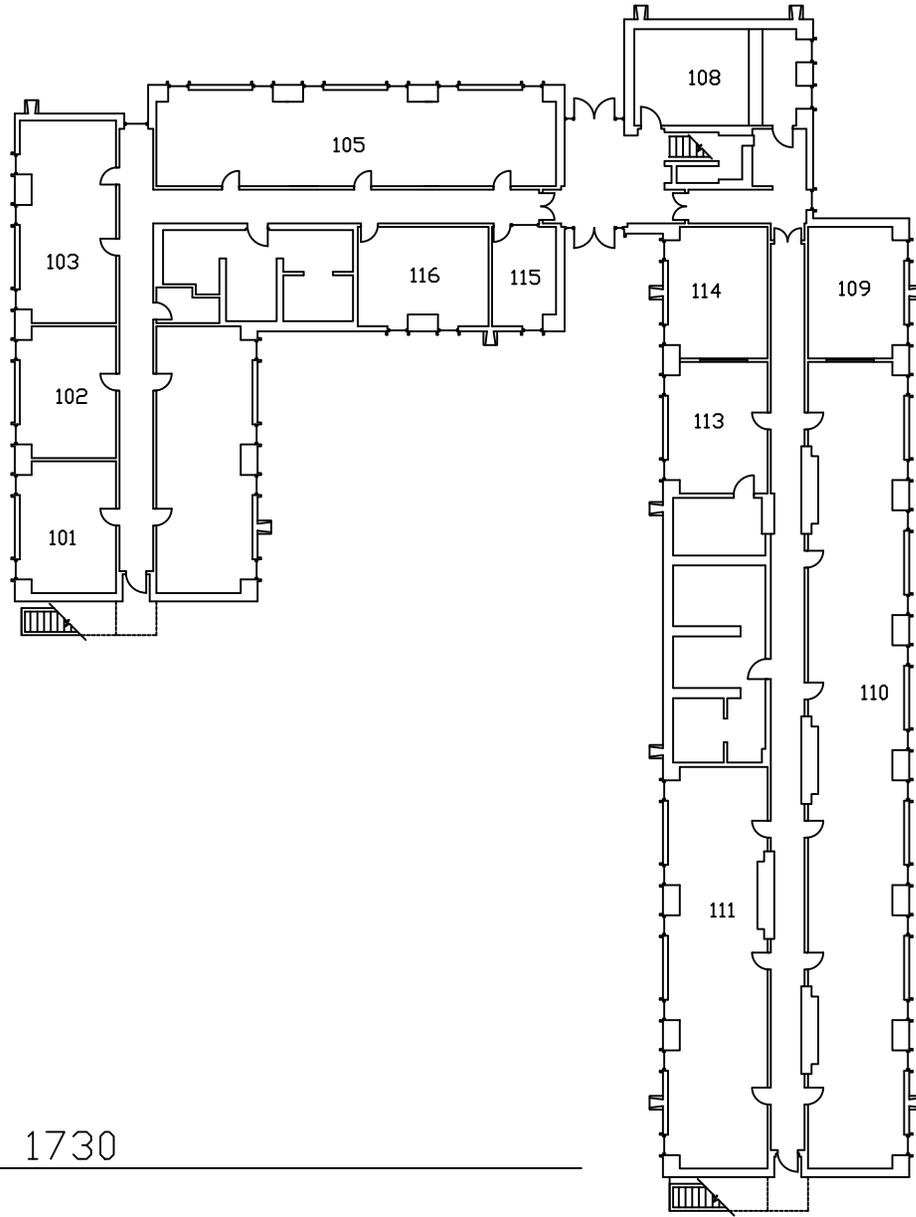
Material (If none, insert "None")	Identification No.
---	--------------------

_____	_____
_____	_____
_____	_____

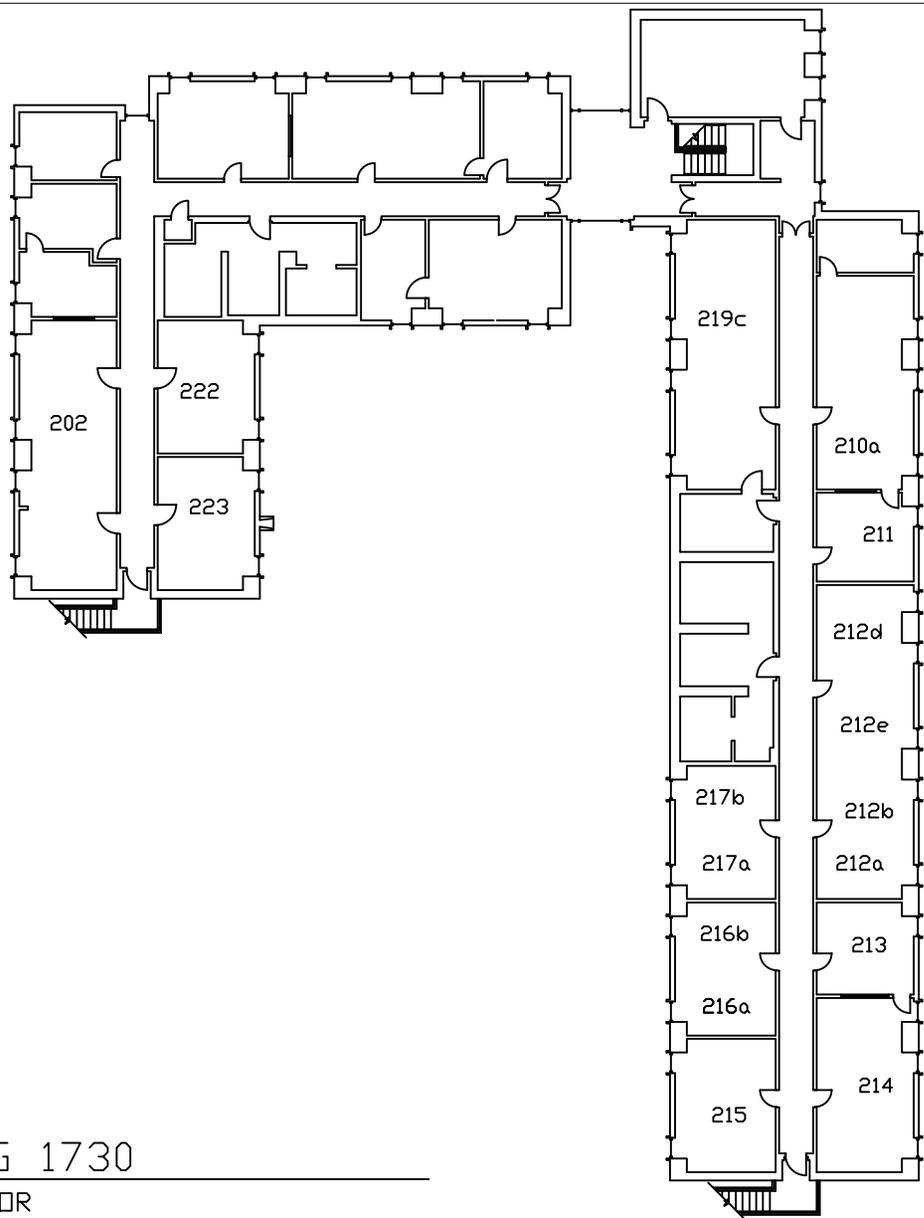
- (c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.
- (d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.
- (e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.
- (f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.
- (g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.
- (h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:
- (1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to--
 - (i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;
 - (ii) Obtain medical treatment for those affected by the material; and
 - (iii) Have others use, duplicate, and disclose the data for the Government for these purposes.
 - (2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.
 - (3) The Government is not precluded from using similar or identical data acquired from other sources.
- (End of clause)

ATTACHMENT A PROJECT LOCATION MAP





BUILDING 1730
FIRST FLOOR



BUILDING 1730
SECOND FLOOR

NAVAL AIR STATION CORPUS CHRISTI TEXAS - WASTE SUMMARY SHEET

Name: Project Title: POC/Phone:
 Number: Delivery Order: Project Location:
 Activity*: Date of Project: Start: End:

Types of Wastes	Landfill		Incinerated		**Recycled			***Composted		
	Tons	Cost	Tons	Cost	Tons	Cost	Revenue	Tons	Cost	Revenue
Metals	<input type="text"/>				<input type="text"/>					
Glass	<input type="text"/>				<input type="text"/>					
Paper & Paperboard Plastic	<input type="text"/>				<input type="text"/>					
Wood	<input type="text"/>				<input type="text"/>					
Asbestos	<input type="text"/>				<input type="text"/>					
Yard/Green Waste	<input type="text"/>				<input type="text"/>			<input type="text"/>		
Other <input type="text"/>	<input type="text"/>				<input type="text"/>					
Ethylene Glycol Antifreeze	<input type="text"/>				<input type="text"/>					
Lead-Acid Batteries Used	<input type="text"/>				<input type="text"/>					
Motor Oil	<input type="text"/>				<input type="text"/>					
Construction & Demolition	<input type="text"/>				<input type="text"/>					
General Refuse	<input type="text"/>				<input type="text"/>					

*Recycling Facility used:
 **Composting Facility used:
 *** Asbestos Disposal Facility:
 **** Waste (Hazardous/Non-Hazardous) Disposal Facility:

PMI EQUIPMENT INVENTORY

Attachment C

EQUIPMENT NO.		EQUIPMENT NAME		FACILITY SUFFIX		PROPERTY NO.		
USER CODE		PRIORITY INSPECT		MAP GRID		ZONE		ROOM-WING
JOB NO.		PW CONTROL NO.		INVENTORY CODE		WARRANTY EXPIRATION DATE		
MODEL				MODEL YEAR		MAKE		
SERIAL NO.				USER FIELD ONE			USER FIELD TWO	
				CAP:				
REMARKS								
COST:								
		BTU		VOLT.		PHASE		
OR		TON.		H.P.		AMP		

NASCORPC 11014/25 (REV. 1-86)



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
1510 GILBERT ST
NORFOLK, VA 23511-2699

IN REPLY REFER TO:
8260
EICO/tlm
06 June 2003

From: Commander, Naval Facilities Engineering Command, Engineering and Innovation and Criteria Office
To: Distribution

Subj: INTERIM TECHNICAL GUIDANCE (ITG) FY03-4, NAVFAC MOLD RESPONSE MANUAL

Ref: (a) OPNAVINST 5100.23 Series, Navy Occupational Safety and Health Program Manual
(b) U. S. Environmental Protection Agency (EPA), Mold Remediation in Schools And Commercial Buildings, March 2001
(c) U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), Army Facilities Management Information Document on Mold Remediation Issues, USACHPPM TG 177, February 2002

Encl: (1) NAVFAC Mold Response Manual, 05 June 2003

1. Purpose. The purpose of this guide is to provide basic criteria and information governing the assessment and remediation of mold.

2. Discussion. As mold concerns received increased media and legal attention, research revealed that no definitive guidance for mold remediation and abatement actions exist. The current methodologies to clean up mold, strategically sample mold, and train for mold response are varied and may be expensive. Currently, there are no Federal or Navy regulations. Typically, risk assessment and exposure levels for hazardous substances are assessed by applying permissible exposure limits (PEL); however, no PEL exists for mold. Reference (a) addresses mold concerns as an Indoor Air Quality biological contaminant. Enclosure (1) consolidates best industry practices and references (b) and (c) into a consolidated guide.

3. Coordination: This guidance has been coordinated within NAVFAC and the Navy Environmental Health Center (NEHC). Address comments and questions on the use of this guidance to the Mold Remediation Program Manager (MRPM).

4. Action.

- a.) Use enclosure (1) for the planning, assessment, evaluation and remediation of mold in facilities. The Naval Facilities Engineering Command's Engineering Innovation and Criteria Office (EICO) is currently coordinating with other DoD components to develop this document into Unified Facilities Criteria (UFC) and to develop a Unified Facilities Guide Specification (UFGS) for mold removal. A UFC for Building Envelope Design, also under development, will include a section specific to ensure that moisture intrusion criteria is adequately identified.

Subj: INTERIM TECHNICAL GUIDANCE (ITG) FY03-4, NAVFAC MOLD RESPONSE MANUAL

- b.) Personnel involved in mold removal must meet qualifications noted in enclosure (1).
- c.) Activities involved in a Level 3 or Level 4 response action shall notify the MRPM prior to commencement.

5. Point of Contact. For clarification or additional information related to this subject, please contact Ms. Janet Stewart, MRPM, DSN 262-4194, CML 757-322-4194, e-mail stewartjk@efdlant.navy.mil.



R. D. CURFMAN
By direction

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INTERIM TECHNICAL GUIDANCE

ITG FY 03-4

NAVFAC MOLD RESPONSE MANUAL



5 June 2003

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CHAPTER 1

PREVENTION AND ASSESSMENT

1-1 **INTRODUCTION.** This guide provides information to individuals who have little or no experience with mold remediation. It will help those in charge of maintenance to develop or evaluate an in-house remediation plan or evaluate a remediation plan submitted by an outside contractor.

Perform all work following the recommendations presented in this document, Environmental Protection Agency (EPA) Guidelines and/or guidelines of the American Conference of Governmental Industrial Hygienist (ACGIH). Consult Safety and Health professionals and/or Industrial Hygienists prior to any remediation activities.

1-2 **BACKGROUND.** Concern about indoor exposure to mold is increasing as the public becomes more aware that exposure to mold can cause a variety of negative health impacts, including allergic reactions. This document provides the best and most current guidance for remediation of clean water damage (response within 48 hours) and mold contamination (response more than 48 hours).

Mold reproduces with tiny spores. Mold spores float through indoor and outdoor air continually. When mold spores land on a damp spot, they may begin growing and digesting the material's surface in order to survive. Molds can grow on wood, paper, carpet, and foods. When excessive moisture or water accumulates indoors, mold growth will often occur, particularly if the moisture problem remains undiscovered or uncorrected. There is no practical way to eliminate all molds and mold spores in the indoor environment, however the way to control indoor mold growth is to control moisture.

Common indoor molds are:

- Cladosporium
- Penicillium
- Alternaria
- Aspergillus
- Mucor

In all situations, the underlying cause of water accumulation must be rectified or mold growth will recur. Stop initial water infiltration and begin clean up immediately. An immediate response (within 24 to 48 hours) and thorough clean up, drying, and/or removal of water damaged materials will prevent or limit mold growth. Ensure proper repairs of the building infrastructure so that water damage and moisture buildup does not recur.

1-3 HEALTH EFFECTS.

1-3.1 **Biological Air Pollutants.** Biological air pollutants are found to some degree in every home, school, and workplace. Sources include outdoor air, human occupants who shed viruses and bacteria, animals (e.g., insects and mammals) that shed allergens, indoor surfaces, and water reservoirs where fungi and bacteria can grow, such as in humidifiers. A number of factors allow biological agents to grow and be released into the air. Especially important is high relative humidity, which encourages house dust mite populations to increase and allows fungal growth on damp surfaces. Note that mold can grow on “dry” surfaces in areas prone to high humidity levels (80% or more). Mite and fungus contamination can be caused by flooding, continually damp carpet (which may occur when carpet is installed on poorly ventilated concrete floors), inadequate exhaust of bathrooms, or kitchen-generated moisture. Appliances such as humidifiers, dehumidifiers, air conditioners, and drip pans under cooling coils (as in refrigerators) support the growth of bacteria and fungi.

1-3.1.1 **Reactions.** Certain individuals may react to mold exposure more severely and quickly than others. These individuals include:

- Infants and children
- Elderly men and women
- Pregnant women
- Individuals with respiratory conditions, allergies or asthma
- Persons with weakened immune systems (i.e. persons with HIV infection, chemotherapy patients, organ/bone marrow transplant recipients, persons with autoimmune diseases)

While only a small number of molds and fungi (see definitions on page 26) are considered toxic and allergenic, species such as *Stachybotrys atra* (*S. atra*), “**Black Mold**,” gained public notoriety during the early 1990’s when it was linked by the Center for Disease and Control (CDC) to 10 cases of lung disorder in infants and 100 other cases. In 1993, there were a number of cases of acute pulmonary hemorrhage in nearly 30 infants after homes were flooded. The CDC does not completely know the specific cause of these deaths. However, they eventually concluded that significant exposure to *Stachybotrys atra* (*S. atra*), in addition to other molds, played a significant role in the development of this severe and fatal lung disease. Other fungi that cause infection include *Coccidioides*, *Histoplasma*, and *Blastomyces*. However, these fungi are rarely found indoors, growing instead in soil and dirt. Human contact is usually due to contact with animals. **Note: not all black mold is *Stachybotrys*.**

1-3.1.2 **Common Health Effects.** Although mold affects individuals differently and to different degrees, the following are some of the most common adverse health effects:

- Respiratory problems---wheezing, difficulty in breathing
- Nasal and sinus congestion
- Eyes-burning, watery, reddened, blurry vision, light sensitivity
- Dry, hacking cough
- Sore throat
- Nose and throat irritation
- Shortness of breath and lung disease
- Chronic fatigue
- Skin irritation
- Central nervous system (headaches, loss of memory, and mood changes)
- Aches and pains
- Fever
- Headaches
- Diarrhea
- Immunity suppression

1-3.2 **Mycotoxins.** Mycotoxins are toxic compounds made by many fungi as metabolic side products. Presence and amount of mycotoxins depend on the species of fungus and a variety of growth factors. The detection of a mold does not necessarily indicate the presence of mycotoxins. Mycotoxins are common in our grain-based food supply, and ingestion is the major source of exposure. Although mycotoxins have been considered as potential causes of the myriad non-allergic symptoms often found in patients with indoor air related complaints, research to date has been scant, and the issue remains controversial. Mycotoxins are considered relatively non-volatile and unlikely to be released into the air in sufficient quantities to cause disease.

1-3.3 **Categories of Ill Effects.** The ill effects of molds generally break down into four categories that include:

- allergies,
- infections,
- irritations, and
- toxicities.

1-3.3.1 **Allergies.** Allergies are probably the most common reaction to contact with molds. According to the American Academy of Allergy, Asthma and Immunology (AAAAAI) an estimated 50 million Americans suffer from allergies.

Teamwork with the installation industrial hygienist, facilities management and safety and occupational health staff in evaluating patient complaints relevant to the work area is critical to solving the problem. If symptoms suggest an allergy to a substance in the work environment, a careful search for a source of this allergen should be made. Fungi are not the only

source of allergens in the indoor environment. Many people are allergic to dust mites, insect parts, etc.

Appropriate treatment of allergic symptoms due to exposure to fungal allergens includes removal of the source of the allergy. This means abatement of visible mold where identified, correction of water incursion problems, and searching the air handling systems in the work area to ensure that any mold is removed. In cases of serious allergic conditions such as hypersensitivity pneumonitis and asthma suspected due to work exposure, consider removal from the work area pending abatement.

1-4 **MOLD PREVENTION TIPS.** The EPA Publication *Mold Remediation in Schools and Commercial Buildings* provides recommendations to prevent mold, such as:

- Fix leaky plumbing and leaks in the building envelope as soon as possible.
- Watch for condensation and wet spots. Fix source(s) of moisture problem(s) as soon as possible.
- Prevent moisture due to condensation by increasing surface temperature or reducing the moisture level in the air (humidity). To increase surface temperature, insulate or increase air circulation. To reduce the moisture level in air, repair leaks, increase ventilation (if outside air is cold and dry), or dehumidify (if outdoor air is warm and humid).
- Keep heating, ventilating, and air-conditioning (HVAC) system drip pans clean, flowing properly, and unobstructed.
- Vent moisture-generating appliances, such as dryers, to the outside.
- Maintain low indoor humidity, below 60% relative humidity (RH), ideally 30-50%, if possible.
- Perform regular building and HVAC inspections and maintenance as scheduled.
- Clean and dry wet or damp spots within 48 hours.
- Don't let foundations stay wet. Provide adequate drainage and slope the ground away from the foundation.

- Repair rainwater leaks through walls, at windows, and at roofs as they are frequently the most significant contributors of moisture. Also, houseplants and any source of standing water (such as aquariums and sumps) can contribute significant moisture to the air.

1-5 **WORKPLACE ASSESSMENT.** According to OPNAVINST 5100.23F *Navy Occupational Safety and Health Manual*, individuals working in buildings with indications of poor indoor air quality (IAQ) should report the problem(s) to their immediate supervisors. If the Navy maintains the building, the appropriate supervisor coordinates all contact with the designated facilities maintenance activity (e.g., Public Works Center (PWC,) Public Works Lead Activity (PWLA), or first lieutenant) and the activity Navy Occupational Safety and Health (NAVOSH) Manager. The supervisor, facility manager and servicing safety office will perform an assessment and investigation as shown in paragraphs 1-3.2 to determine the cause(s) of poor indoor air quality. If the activity is unable to determine the cause of the problem, the NAVOSH manager must request the cognizant industrial hygiene service to initiate an IAQ investigation.

The Chief, Bureau of Medicine and Surgery (BUMED) Consultative Assistance Team (CAT) assists in IAQ investigations beyond the scope of the cognizant industrial hygiene service. BUMED determines whether the problem is primarily health-related, engineering related, or both, and will request assistance from appropriate sources as needed (e.g., NAVFACENGCOM).

If the building contains Navy personnel, but is maintained by a private enterprise, report the problem(s) to the appropriate facilities maintenance organization. If there is no solution, contact the NAVOSH manager.

To solve the problem, it is critical to cooperate with the installation's industrial hygienist and facilities management team when evaluating complaints relevant to the work area.

1-5.1 **Reasons for Complaints.** Indoor air quality complaints may arise as a result of many things, including, but not limited to, the following:

- Construction
- Renovation
- Office design
- Furnishings
- Housekeeping
- Maintenance practices

1-5.2 **Investigation.** Investigators may conduct interviews, if appropriate, with employees, building or facility managers, occupational safety and health staff, facility engineers and public works personnel.

Once information is gathered from affected employees, a complete inspection and assessment of the suspect area must be made by the facility manager, supervisor and, if needed, servicing safety and health office. To assist with this assessment, a Facility Assessment Checklist, Appendix C is provided for your use.

1-5.3 **Assessment.** Multiple causes of poor IAQ exist, any one of which could decrease the quality of the work environment. Some examples are:

- Unacceptable Humidity Ranges. Low humidity may lead to dryness and irritation of the nose, throat, skin and eyes. High humidity aids in the growth of certain molds.
- Insufficient Ventilation. Lack of sufficient fresh air leads to high carbon dioxide concentrations in workspaces. Lack of fresh air may cause fatigue, drowsiness, poor concentration and the sensation of temperature extremes without actual temperature changes. Increased CO₂ levels are an indicator of poor ventilation.
- Off-gas Chemicals. Many modern office furnishings and equipment emit chemicals. Adhesives, carpeting, upholstery, manufactured wood products, copy machines, pesticides and cleaning agents are examples of items that emit gas.
- Tobacco Smoke
- Biological Contamination. Biological contaminants such as bacteria, molds, pollen and viruses may be present in stagnant water, air ducts, humidifiers and drain pans. Water damaged material and insect and bird droppings contribute to biological contamination. Biological contaminants can trigger allergic reactions and some types of asthma and can cause some common infectious diseases.
- Combustion Products. Combustion products, such as carbon monoxide and nitrogen oxides can be released by vehicle exhaust, improperly burning furnaces, appliances and environmental tobacco smoke.

When performing facility assessments, the above factors must be evaluated in addition to obvious mold contamination. During the assessment and remediation of mold, the following precautions should be followed:

- Do not touch moldy items with your bare hands
- Do not get mold in your eyes
- Wash your hands and face when leaving the site
- Do not eat, drink or smoke in the area
- Do not breathe in mold or mold spores

During this assessment, determine response levels and remediation (see Chapter 2.) Non-porous (e.g. metal, glass and hard plastics) and semi porous (e.g. wood and concrete) materials that are structurally sound can be cleaned and reused.

Take care to identify all sources of mold contamination. In some cases, mold growth may not be obvious or visible. Areas that may be potentially contaminated are:

- Back side of dry wall
- Back side of wallpaper
- Back side of paneling
- Top of ceiling tiles
- Underside of rugs and/or tile
- Pipe chases/utility tunnels
- Equipment drain pans
- Behind furniture/equipment

Facilities managers, with the assistance of public works personnel, engineers, etc. should ensure that assessments include a cost analysis to identify the potential for replacement of the contaminated items versus remediation.

1-6 **SAMPLING.**

1-6.1 **Bulk or Surface Sampling.** Bulk or surface sampling is not required or recommended prior to remediation activities. Generally, it is not necessary to identify the species of mold growing in a particular area and the Centers for Disease Control and Prevention (CDC) does not recommend routine sampling for mold. Sampling may be necessary if an individual(s) has been diagnosed with a disease that is or may be associated with mold exposure (e.g., aspergillosis) and the occupational health physician or medical practitioner desires to confirm the causative agent. Sampling for this purpose should only be conducted under the technical direction and guidance of the servicing Industrial Hygienist.

1-6.2 **Pre- and Post –Remediation Air Sampling.** Pre- and post-remediation air sampling may be necessary if there is evidence from a visual

inspection or bulk sampling that the ventilation systems are contaminated. The purpose of such sampling is to assess the extent of contamination throughout a building and to confirm adequate remediation.

Air sampling may be necessary if the presence of mold is suspected (e.g., musty odors) but cannot be identified by a visual inspection or bulk sampling (e.g., mold growth behind walls). The purpose of this sampling is to determine the location and degree of contamination.

When air sampling is deemed necessary and is performed, collect outdoor air samples at the same time at the fresh air intake, which serves the suspected area. Compare the values obtained. The indoor and outdoor air samples should be similar in kinds and concentrations of mold to what is found locally in the outdoor air.

1-6.2.1 Personnel conducting the sampling should be trained in proper air sampling methods for microbial contaminants. For additional information on air sampling, refer to the American Conference of Governmental Industrial Hygienists', *Bioaerosols: Assessment and Control*.

Only laboratories that are proficient in the American Industrial Hygienist Association (AIHA) Environmental Microbiology Proficiency Analytical Testing (EMPAT) program should perform sample analysis.

CHAPTER 2

REMEDIATION REQUIREMENTS

2-1 **RESPONSE ACTIONS.** As adapted by the New York City Department of Health, *Guidelines on Assessment and Remediation of Fungi in Indoor Environments and EPA Guidelines*, response actions may be broken down into separate and distinct categories as shown below:

Level 1	Small Isolated Areas 10 sq. feet or less
Level 2	Mid Size Isolated Areas 10 – 100 sq. feet
Level 3	Extensive Contamination Greater than 100 contiguous sq. ft. in an area
Level 4	Contaminated HVAC

Response guidelines for water damage within 24-48 hours are shown in Table 2-1. Use these guidelines in conjunction with the Level 1 through Level 4 response actions identified in Table 2-2.

2-1.1 **Books and Papers:** Consult activities regarding the preservation of documents. It may be cost prohibitive and labor intensive to attempt to dry and clean a large area of books and papers. Small quantities may be vacuumed, damp wiped and placed in a clean area to dry with the use of heat and fans.

Note: Consult Industrial Hygienist and/or servicing Safety and Health Staff for cleaning of materials contaminated with “dirty” (e.g., gray or black) water.

**Table 2-1 RESPONSE GUIDELINES FOR WATER DAMAGE
WITHIN 24- 48 HOURS**

WATER DAMAGED MATERIAL	RESPONSE ACTION
Books and Paper (see note below)	<ul style="list-style-type: none"> • Discard non valuable items • Photocopy valuable items and discard originals
Carpet and Backing – dry within 24-48 hours	<ul style="list-style-type: none"> • Remove water with water extraction vacuum • Reduce humidity levels with dehumidifier • Accelerate drying process with fans
Ceiling Tiles	<ul style="list-style-type: none"> • Discard and replace
Cellulose insulation	<ul style="list-style-type: none"> • Discard and replace
Concrete or cinder block	<ul style="list-style-type: none"> • Remove water with water extraction vacuum • Accelerate drying process with dehumidifiers, fans and/or heaters
Fiberglass insulation	<ul style="list-style-type: none"> • Discard and replace
Hard surface, porous flooring (linoleum, ceramic tile, vinyl)	<ul style="list-style-type: none"> • HEPA vacuum or damp wipe with water and mild detergent and allow to dry; scrub if necessary. • Check to make sure under flooring is dry, and dry if necessary.
Non-porous, hard surfaces (plastics, metals)	<ul style="list-style-type: none"> • HEPA vacuum and damp wipe with water and mild detergent and allow to dry; scrub if necessary
Upholstered Furniture	<ul style="list-style-type: none"> • Remove water with water extraction vacuum • Accelerate drying process with dehumidifiers, fans and/or heaters • If valuable and unable to dry within 48 hours restoration/water damage professional should be consulted.
Wallboard (Drywall and gypsum board)	<ul style="list-style-type: none"> • Dry in place if there is not obvious swelling and seams are intact. If not, remove, discard and replace. • Ventilate wall cavity.
Window drapes	<ul style="list-style-type: none"> • Follow laundering or cleaning instructions recommended by the manufacturer.
Wood surfaces	<ul style="list-style-type: none"> • Remove moisture immediately and use dehumidifiers, gentle heat, and fans for drying. (Use caution when applying heat to hardwood floors). • Treated or finished wood surfaces may be cleaned with a mild detergent and clean water and allowed to dry.
Wood Paneling	<ul style="list-style-type: none"> • Remove moisture immediately and use dehumidifiers, gentle heat, and fans for drying. • Wet paneling should be pried away from the wall for drying.

Table 2-2 RESPONSE ACTIONS

LEVEL	DESCRIPTION	RESPONSE ACTIONS
Level 1	(10 ft ² or less) Small isolated areas (i.e. Ceiling tiles, small areas on walls, etc.)	Regular building maintenance staff can conduct remediation. Provide training to maintenance staff on proper clean up methods, personal protective equipment requirements and potential health hazards. Training can be performed as part of the program to comply with the requirements of OSHA 29 CFR 1910.1200, <i>Hazard Communication Standard</i> . This training should be under the technical direction of the servicing Industrial Hygienists and/or Occupational Safety and Health Staff. For additional information see the Training Section of this document.
		Personnel conducting remediation are required to wear the Personal Protective Equipment (PPE) for the specific level response action. See Chapter 2 for specific requirements.
		<p>The work area should be unoccupied. Vacating people from spaces adjacent to the work area is not necessary but is recommended for:</p> <ul style="list-style-type: none"> ▪ Infants (less than 12 months old) ▪ Persons recovering from recent surgery, immune suppressed people, or people with chronic inflammatory lung disease (severe allergies, asthma, hypersensitivity pneumonitis)
		Perform work operations, to the extent feasible, after normal occupancy hours.
		Containment of the area is not necessary.
		Use dust suppression methods, such as High Efficiency Particulate Air (HEPA) vacuuming area to minimize disturbance of spores and/or misting (not soaking) of surfaces prior to remediation.
		Contaminated materials that cannot be cleaned shall be placed in a heavy-duty plastic bag or other suitable impermeable container for disposal in an approved sanitary landfill.
		Work area utilized by remediation workers should be cleaned with a damp cloth and/or mop with a detergent solution.
		All areas should be left dry and visibly free from contamination and debris.

<p>Level 2</p>	<p>(10 - 100 Sq. Ft) Mid-Sized Isolated Areas (i.e. individual wallboard panels)</p>	<p>Only trained/certified personnel such as asbestos or lead abatement personnel may perform Level 2 – 4 remediation activities as the removal/clean up methods for mold mirror that of lead and asbestos. Provide additional training on proper clean up methods, personal protective equipment requirements and potential health hazards. Training can be performed as part of the program to comply with the requirements of OSHA 29 CFR 1910.1200, <i>Hazard Communication Standard</i>. This training should be under the technical direction of the servicing Industrial Hygienists and/or Occupational Safety and Health Staff. For additional information see the Training Section of this document.</p>
		<p>Personnel conducting remediation will be required to wear the Personal Protective Equipment (PPE) for the specific level response action. See Chapter 2 for specific requirements.</p> <p>The work area should be unoccupied. Vacating people from spaces adjacent to the work area is not necessary but is recommended for:</p> <ul style="list-style-type: none"> ▪ Infants (less than 12 months old) ▪ Persons recovering from recent surgery, immune suppressed people, or people with chronic inflammatory lung disease (severe allergies, asthma, hypersensitivity pneumonitis)
		<p>Perform work operations, to the extent feasible, after normal occupancy hours.</p> <p>Remediation should be accomplished in a mini-enclosure or with larger areas, full enclosure. The work area should be covered with a 6 mil. Polyethylene sheeting from floor to ceiling around the affected area, sealed with tape, with a slit entry and covering flap, before remediation, to contain dust/debris. Area should be maintained under negative pressure using a HEPA filtered fan. Supply and return air vents inside the mini enclosure should also be sealed.</p>
		<p>Use dust suppression methods, such as High Efficiency Particulate Air (HEPA) vacuuming area to minimize disturbance of spores and/or misting (not soaking) of surfaces prior to remediation.</p>
		<p>Contaminated materials that cannot be cleaned shall be placed in a heavy-duty plastic bag or other suitable impermeable container for disposal in an approved sanitary landfill.</p>
		<p>The work area and areas used by remediation workers for egress should be HEPA vacuumed and cleaned with a damp cloth and/or mop with a detergent solution.</p>
		<p>All areas should be left dry and visibly free from contamination and debris.</p>

<p>Level 3</p>	<p>(> 100 Sq. Ft) Large Isolated Areas (i.e. several wallboard panels)</p>	<p>Only trained/certified personnel such as asbestos or lead abatement personnel may perform Level 2 – 4 remediation activities as the removal/clean up methods for mold mirror that of lead and asbestos. Provide additional training on proper clean up methods, personal protective equipment requirements and potential health hazards. Training can be performed as part of the program to comply with the requirements of OSHA 29 CFR 1910.1200, <i>Hazard Communication Standard</i>. This training should be under the technical direction of the servicing Industrial Hygienists and/or Occupational Safety and Health Staff. For additional information see the Training Section of this document.</p>
		<p>Personnel conducting remediation will be required to wear the Personal Protective Equipment (PPE) for the specific level response action. See Chapter 2 for specific requirements.</p> <p>The work area should be unoccupied. Vacating people from spaces adjacent to the work area is not necessary but is recommended for:</p> <ul style="list-style-type: none"> ▪ Infants (less than 12 months old) ▪ Persons recovering from recent surgery, immune suppressed people, or people with chronic inflammatory lung disease (severe allergies, asthma, hypersensitivity pneumonitis)
		<p>Perform work operations, to the extent feasible, after normal occupancy hours.</p>
		<p>Prior to work operations the contaminated area must be completely isolated from occupied spaces using plastic sheeting sealed with duct tape. Ventilation ducts/grills, fixtures and any other openings shall also be sealed. For specific information regarding the construction of this area, see the Containment section of this document. HVAC systems shall be secured.</p>
		<p>Prior to work beginning, negative pressure shall be established in the work area. See the Establishing Negative Pressure section of this document for additional information.</p>
		<p>Perform work operations, to the extent feasible, during the second or third shifts or on weekends and holidays.</p>
		<p>Use dust suppression methods, such as High Efficiency Particulate Air (HEPA) vacuuming area to minimize disturbance of spores and/or misting (not soaking) of surfaces prior to remediation.</p>
		<p>Contaminated materials that cannot be cleaned shall be placed in a heavy-duty plastic bag or other suitable impermeable container for disposal in an approved sanitary landfill. The outside of the bags should be cleaned with a damp cloth and detergent solution or HEPA vacuumed in the decontamination chamber prior to their transport to the uncontaminated areas of the building. There are no special requirements for the disposal of moldy materials.</p>

		The contained work area and areas used by remediation workers for egress should be HEPA vacuumed and cleaned with a damp cloth and/or mop with a detergent solution.
		All areas should be left dry and visibly free from contamination and debris prior to removal of the isolation barriers.
Level 4	HVAC Systems	Only trained/certified personnel such as asbestos or lead abatement personnel may perform this level of remediation as the removal/clean up methods for mold mirror that of lead and asbestos. Additional training shall be provided to these workers on proper clean up methods, personal protective equipment requirements and potential health hazards. Training can be performed as part of the program to comply with the requirements of OSHA 29 CFR 1910.1200, Hazard Communication Standard. This training should be under the technical direction of the servicing Industrial Hygienists and/or Occupational Safety and Health Staff. For additional information see the Training Section of this document.
		Personnel conducting remediation will be required to wear the Personal Protective Equipment (PPE) for the specific level response action. See Chapter 2 for specific requirements.
		The HVAC system should be shut down prior to any remediation activities.
		For small isolated areas of contamination, follow the Level 2 response actions and personal protective equipment identified herein.
		For large areas of contamination (greater than 100-sq. ft.), follow the Level 3 response actions and personal protective equipment identified herein.
		Inspection should include possible contamination of the fiber duct and/or fiber duct wrap. Should contamination spread to these areas, consideration should be given to the total replacement of the duct and duct wrap.

2-2 **MEDICAL QUALIFICATIONS.** Personnel performing remediation activities must be medically qualified and capable to perform their duties and wear appropriate personal protective equipment.

Certain individuals are at greater risk when assigned to perform mold remediation activities. These individuals include but are not limited to those employees with:

- Immune suppression
- Hypersensitivity pneumonitis
- Sinusitis
- Other chronic inflammatory lung diseases
- Individuals with respiratory conditions, allergies or asthma
- Persons with weakened immune systems (i.e. persons with HIV infection, chemotherapy patients, organ/bone marrow transplant recipients, persons with autoimmune diseases)

2-3 **TRAINING.** Currently, no national training or certification standards exist and references to training are general. For example, NYC Department of Health (DOH) notes that building maintenance personnel who conduct remediation should “receive training on proper clean up methods, personal protection, and potential health hazards.” NYC DOH indicates that training for building maintenance personnel can be performed as part of a program to comply with the requirements of the Occupational Safety and Health Administration (OSHA) *Hazard Communication Standard* (29 CFR 1910.1200). The hazard communication standard, however, addresses hazardous chemicals in the workplace but does not offer guidance on the types of training needed for handling mold or other biological agents.

For areas of heavier contamination, NYC DOH recommends that personnel doing the remediation work be trained “in the handling of hazardous materials and equipped with respiratory protection in accordance with the OSHA respiratory protection standard (29 CFR 1910.134).” The training must include information on possible hazards; effective strategies to protect building occupants and remediation/response actions; and reminders to wear appropriate PPE.

Regular building staff, with appropriate Mold Awareness Training, may perform Level 1 responses actions.

Commands providing mold remediation services for Level 2 – 4 response actions must utilize the services of trained and certified asbestos and lead workers or hazardous waste emergency responders. These trained employees are knowledgeable in the abatement techniques utilized when performing mold remediation. The servicing Safety and Health Office or local

Industrial Hygienist should provide additional “in-house” training specific to mold remediation, including:

- Workplace evaluations
- Health Effects
- Medical Qualifications
- Personal Protective Equipment Requirements
- Sampling
- Clearance Criteria

In the absence of national training or certification standards, there are many private companies, colleges and universities, and professional organizations that provide three-day Mold Remediation Certification Courses. Activities and Commands providing mold remediation services should ensure that supervisors and inspectors of mold remediation attend one of these three-day courses. Contact the local Safety and Health Office, Industrial Hygienist or Echelon 2 Command for course recommendations.

2-4 **PERSONAL PROTECTIVE EQUIPMENT (PPE).** Activities must fit test, issue and train personnel to wear respirators and ensure personnel are medically qualified to wear a respirator (see Table 2-3.) Follow the requirements for the Navy’s *Respiratory Protection Program* in OPNAVINST 5100.23 Series, Chapter 15.

Activities must not fit test personnel, assign them to work in, or permit them to enter, areas requiring respiratory protection unless they have been medically evaluated. Criteria for the medical evaluation of personnel can be found in the Navy Environmental Health Center, *Medical Surveillance Procedures Manual and Medical Matrix* (Edition 7).

Personnel with facial hair or any other condition that interferes with the face-to-face-piece seal or valve function may not wear respirators with tight-fitting face-pieces.

Use respirators that are currently approved by the National Institute of Occupational Safety and Health (NIOSH) or Mine Safety and Health Administration (MSHA).

Fit test each individual required to use a respirator with a tight-fitting face-piece at the time of initial fitting and annually thereafter. Respiratory Protection Program Managers must develop, in concert with servicing Industrial Hygiene personnel, a change out schedule for chemical canisters and cartridges based on objective information or data that will ensure the canisters or cartridges are changed before the end of their service life.

Respirators must be maintained and properly stored when not in use.

Table 2-3 RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

LEVEL OF REMEDIATION	RECOMMENDED PPE
<p>Level 1 Level 2</p>	<p>Half Mask, Negative Pressure Respirator with High Efficiency Particulate Air (HEPA) Filters (P-100)</p> <p>Whole Body Disposable Non-Breathable Coveralls with Head Covering and Foot Covering (Tyvek or comparable) taped at wrists and ankles</p> <p>Impermeable Gloves</p> <p>Goggles/Eye Protection</p>
<p>Level 3 Level 4*</p>	<p>Full Face, Negative Pressure Respirator with High Efficiency Particulate Air (HEPA) Filters (P-100)</p> <p>Whole Body Disposable Non-Breathable Coveralls with Head Covering and Foot Covering (Tyvek or comparable) taped at wrists and ankles</p> <p>Impermeable Gloves</p> <p>* If greater than 100 sq. ft. of contamination. Small-scale Level 4 operations Half Mask Negative Pressure Respirators may be used.</p>

2-5 **EQUIPMENT AND MATERIALS.** The equipment and materials needed to perform mold remediation are those generally accepted and used during asbestos and lead removals. Below is a sample listing of equipment that may be needed or used and is not all-inclusive:

- HEPA Wet/Dry Vacuum Cleaners
- Negative Air Pressure Machines
- Manometer or smoke tubes (used for checking negative pressure)
- Polyethylene Sheeting, 6 mil
- Industrial, Heavy Duty, Clear, Plastic Garbage Bags
- Trowels
- Mops and Buckets
- Detergent/Cleaning Solution
- Steam Carpet Cleaning Machine
- Rags and Sponges
- Duct Tape
- Lock out/Tag out Devices
- Appropriate Personal Protective Equipment
- Fans (for post abatement use in drying area or use in clean area to facilitate drying of cleaned materials)

2-6 **HAZARD COMMUNICATION.** When mold growth requiring large-scale remediation is found, the building owner, management, and/or employer must notify occupants in the affected area(s) of its presence. Notification should include a description of the remedial measures to be taken and a timetable for completion.

While normal small-scale response actions do not dictate “whole building” notifications, coordinate response activities with the supervisors of the affected areas. Supervisors are then responsible for notifying affected personnel and providing a description of remedial measures to be taken and the schedule for completion.

Well-planned group meetings held before and after remediation with full disclosure of plans and results can be an effective communication mechanism. Servicing Safety and Health professionals, Industrial Hygienists and/or Occupational Health providers may provide valuable assistance during these meetings.

Advise occupants of any known or suspected health risks. Temporarily relocate individuals that may be at a high risk for experiencing adverse reactions to mold, (see paragraph 1-6.1.1) during remediation activities.

EPA Mold Remediation in Schools and Commercial Buildings recommends:

Communicate, When You Remediate

- Establish that the health and safety of building occupants are top priorities.
- Demonstrate that the occupants' concerns are understood and taken seriously.
- Present clearly the current status of the investigation or remediation efforts.
- Identify a person whom building occupants can contact directly to discuss questions and/or comments about the remediation activities.

2-7 **CONTAINMENT.** During remediation, containment limits the release of mold into the air and surroundings, ensures mold is not spread beyond the contaminated area and minimizes exposure to workers and building occupants.

2-7.1 **Area Size.** Determine the containment area size by the extent of the mold contamination, ease of clean up and potential for mold distribution. As a general rule, limited containments are recommended for areas involving between 1 m² to 9 m² (10 ft² and 100 ft²) of mold contamination. Full containments are recommended for surfaces with greater than 9 m² (100 ft²) of contamination or in situations where it appears that the space would be further contaminated without full containment. An enclosure should be the minimum volume to encompass all of the working surfaces yet allow unencumbered movement by the worker(s), provide unrestricted air flow past the worker(s), and ensure walking surfaces can be kept free of tripping hazards. For larger containments, erect wood or steel frames with polyethylene sheeting attached. With small containments, polyethylene sheeting can be affixed to the floors or ceilings with duct tape. Ensure the walls, ceilings and floors are structurally adequate to ensure that portions of the enclosure do not fall down during normal use. Exercise sound judgment when determining containment requirements.

2-7.2 **Containment Enclosure.** It is not necessary that the structure be airtight. Design openings to direct airflow; design them to draw air into the enclosure under all anticipated circumstances. Use an airlock or a vestibule to control openings for exits.

Line walls, barriers, ceilings, and floors with double layers of polyethylene sheeting having a thickness of at least 0.15 mm (6 mil.)

Seal all supply and air vents, doors, chases and risers within the containment with polyethylene sheeting to minimize the migration of contaminants to other parts of the building.

Minimize seams in the sheeting material to reduce the possibility of accidental rips and tears in the adhesive or connections. Overlap and stagger all seams in the sheeting. Do not locate seams at corners or wall-to-floor joints.

Each enclosure consists of a work area, a decontamination area, and waste storage area. Separate the work area where the mold removal operations occur from both the waste storage area and the contamination control area by physical curtains, doors, and/or airflow patterns that force any airborne contamination back into the work area.

Construct the decontamination room or airlock for entry into and exit from the remediation area. The entryways to the airlock from the outside and from the airlock to the main containment area should consist of a slit entry with covering flaps on the outside surface of each slit entry. The chamber should be large enough to hold a waste container and allow a person to put on and remove PPE. Place all contaminated PPE, except respirators, in a sealed bag while in this chamber.

2-7.3 Establishing Negative Pressure. Air is to be drawn into the enclosure under all anticipated conditions and exhausted through a HEPA filter for the duration of the project. This can be accomplished through the use of HEPA filtered fans exhausted to the outside of the building. For small, easily contained areas, this can be accomplished using a fan or HEPA vacuum.

Check airflow patterns before removal operations begin and any time there is a question regarding the integrity of the enclosure. The primary tests for airflow trace air currents with smoke tubes or other visual methods. Make flow checks at each opening and at each doorway to demonstrate that air is being drawn into the enclosure and at each worker's position to show that air is being drawn away from the breathing zone.

After the initial airflow patterns have been checked, monitor the static pressure within the enclosure, using manometers, pressure gauges, or combinations of these devices.

The design parameters for static pressure differentials between the inside and outside of enclosures typically range from 5 to 25 Pa (0.02 to 0.10 inches of water gauge,) depending on conditions. All zones inside the enclosure should have less pressure than the ambient pressure outside of the enclosure e.g. -5 Pa (-0.02 inches water gauge differential). Design specifications for the differential vary according to the size, configuration, and shape of the enclosure as well as ambient and mechanical air pressure conditions around the enclosure.

The airflow volume (cubic meters per minute) exhausted (removed) from the workplace must exceed the amount of makeup air supplied to the enclosure. Design the rate of air exhausted from the enclosure to maintain a negative pressure in the enclosure and air movement past each worker. The

volume of airflow removed from the enclosure should replace the volume of the container at every 5 to 15 minutes. Airflow volume must be relatively high for large enclosures, enclosures with awkward shapes, enclosures with multiple openings, and operations employing several workers in the enclosure.

Airlocks are mechanisms on doors and curtains that control the air flow patterns in the doorways. Direct the patterns through doorways so that air flows toward the inside of the enclosure. Use vestibules, double doors, or double curtains to prevent air movement through the doorways. To use a vestibule, a worker enters a chamber by opening the door or curtain and then closing the entry before opening the exit door or curtain.

Check the airflow between adjacent rooms using smoke tubes or other visual tests to ensure the flow patterns draw air toward the work area.

As a general rule, if the containment has been constructed properly and openings have been sealed, the polyethylene sheeting should billow inwards on all surfaces. If it flutters or billows outward, negative pressure has not been established or has been lost, and you must find and correct the problem before continuing the remediation activities.

2-7.4 Heating, Ventilating, and Air Conditioning (HVAC) Systems. Heavy mold growth on ceiling tiles may impact HVAC systems if the space above the ceiling is used as a return air plenum. In this situation, construct the containment from the floor to the ceiling deck and replace the filters in the air-handling units servicing the area once remediation is finished.

Prior to work beginning, secure HVAC systems servicing the contaminated area; lock and tag-out in accordance with the Command's Energy Control (Lockout/Tagout) Program.

Coordinate technical assistance in identifying remediation procedures for contaminated HVAC systems with the local Industrial Hygienist and/or Safety and Health professional and mechanical engineers.

2-8 USE OF BIOCIDES AND DISINFECTANTS. The use of a biocide, such as chlorine bleach, is not recommended during mold remediation. Mold remediation removes the mold to prevent human exposure and damage to building materials and furnishings. It is necessary to clean up mold contamination, not just to kill it. Dead mold is still allergenic, and some dead molds are potentially toxic.

In most cases, it is not possible or desirable to sterilize an area; a background level of mold spores will remain in the air (roughly equivalent to or lower than the level in outside air). These spores will not grow if the moisture problem has been resolved.

If you choose to use disinfectants or biocides, always ventilate the area. Bring in outdoor air with fans. When using fans, take care not to distribute mold spores into an unaffected area. Biocides are toxic to humans, as well as to mold; use appropriate PPE and read and follow label precautions. Never mix chlorine bleach solution with cleaning solutions or detergents that contain ammonia; toxic fumes could be produced.

Some biocides are considered pesticides, and should only be applied or used by trained and certified pesticide applicators. Fungicides are commonly applied to outdoor plants, soil, and grains as a dust or spray—examples include:

- Hexachlorobenzene
- Organomercurials
- Pentachlorophenol
- Phthalimides
- Dithiocarbamates

Do not use fungicides developed for use outdoors for mold remediation or for any other indoor situation.

Do not use gaseous ozone or chlorine dioxide for remedial purposes. Both compounds are highly toxic and contamination of occupied space poses a health threat. Further, the effectiveness of these treatments is unproven.

In all cases, consult the cognizant Industrial Hygienist and/or Safety and Occupational Health Specialist prior to using any biocide/disinfectant.

2-9 **REMEDATION PERFORMANCE METRICS.** At present, no state or federal agencies have established standards for “acceptable” air or surface concentrations of mold indoors. Similarly, professional organizations such as AIHA and ACGIH also have not established quantitative guidelines for air and surface mold levels in occupied spaces. Consequently, determining when a mold remediation project has been completed and judging the effectiveness of such a project must rely upon qualitative measures. The most basic of these is that people should be able to occupy or re-occupy the remediated space without health complaints or physical symptoms.

For remediation to be judged successful, at least two criteria must be met:

- The water or moisture problem that led to the mold problem must have been identified and fixed.

- All affected areas must have been inspected and visible mold and mold-damaged materials must have been removed.

If air sampling is performed, the types and concentrations of molds measured indoors should be similar to what is measured outdoors. ACGIH adds that concentrations of biological agents in any surface samples taken should be similar to what is observed in well-maintained buildings or on construction and finishing building materials. EPA recommends revisiting the site of remediation shortly after work is completed to ensure that there are no signs of water damage or mold growth.

CHAPTER 3 EXECUTION

3-1 **REQUIREMENTS.** Activities must ensure that contracts involving mold remediation include appropriate statement of work, ensure hazard control techniques are properly applied and all safety and health requirements are addressed.

Use the following Unified Facilities Guide Specifications (UFGS) as a guide for contractual mold services:

- UFGS 13281N, *Engineering Control of Asbestos Containing Materials*
- UFGS 13282N, *Lead in Construction*
- UFGS 01525, *Safety and Occupational Health Requirements*

3-2 **CONTRACTS.** Perform complete, accurate and site specific Health and Safety Plans (HASP) and Activity Hazard Analysis (AHA), as required by the U. S. Army Corps of Engineers *Safety and Health Manual*, EM 385-1-1, for each mold remediation project (Level 2 –4). Plans must provide site-specific safety and health performance of work to include at a minimum:

- Hazard Analysis
- Work-area control specifications
- Monitoring
- Training
- Medical Surveillance
- Personal Protective Equipment
- Emergency response and contingency requirements
- Sampling
- Clearance criteria

A certified Industrial Hygienist or equivalent by training and/or experience must review all contractor HASPs prior to initiating site work. In addition, the servicing Occupational Safety and Health Manager or his designated representative, who has sufficient knowledge and authority to review and accept, must review HASPs for appropriate inclusion of appropriate safety requirements. Plans must be reviewed and accepted prior to issuing the Notice to Proceed.

CNO letter 5100 Ser 4540/IU595518 dated 22 June 2001 provides a guide to safety and health responsibilities in contract management. This document is available for review at: <http://www.navosh.net>.

3-3 **GOVERNMENT EXECUTION.** Government forces must complete a Job Hazard Analysis (JHA) and Standard Operating Procedure (SOP) for mold remediation projects.

GLOSSARY

Acceptable indoor air quality - That quality of air in an occupied enclosed space that is within an established temperature and humidity comfort zone, and which does not contain air contaminants in sufficient concentration to produce a negative impact on the health and comfort of the occupants.

Air contaminant - A gaseous, liquid, or solid substance or combination of substances in a form transported by or in air that has the potential to be detrimental to human health.

Allergen – substance (such as mold) that can cause an allergic reaction

Biocide – substance or chemical that kills organisms such as molds

Fungi – neither plants nor animals including molds, yeasts, mushrooms, and puffballs. Molds reproduce by making spores, which travel through the indoor and outdoor continually. When mold spores land on a moist/damp surfaces they begin growing and digesting whatever organic substance they are growing on if oxygen and moisture are present. It is estimated that more than 1.5 million species of fungi exist.

Fungicide – substance or chemical that kills fungi.

Hypersensitivity – Great or excessive sensitivity

Indoor Air Quality (IAQ) - The quality of air in an occupied enclosed space.
Indoor air pollution - The presence, in an indoor environment, of one or more air contaminants in sufficient concentration and of sufficient duration to be capable of causing adverse effects to human health.

Mold – Mold are a group of organisms that belong to the kingdom Fungi. In this document mold/fungi are used interchangeably. There are over 20,000 species of mold.

Microbial - Agents derived from, or that are, living organisms (e.g., viruses, bacteria, fungi, and mammal, bird and dust mite antigens) that can be inhaled and can cause adverse health effects including allergic reactions, respiratory disorders, hypersensitivity disorders, and infectious diseases. Also referred to as "microbiological" or "biological contaminants."

Negative pressure - A condition that exists when the air pressure in an enclosed space is less than that in the surrounding areas. Under this condition, if an opening exists between these locations, air will flow from surrounding areas into the negatively pressurized space. A negatively pressurized building will have airflow from the outside into the building through available openings.

Positive pressure - A condition that exists when the air pressure in an enclosed space is greater than that in the surrounding areas. Under this condition, if an opening exists between these locations, air will flow from the positively pressurized space into surrounding areas. A positively pressurized building will have airflow from the building to the outside through available openings.

Preventive maintenance - Regular and systematic inspection, cleaning, and replacement of worn parts, materials and systems. Preventive maintenance helps to keep parts, materials, and systems from failing by ensuring they are in good working order.

Spore – means by which molds reproduce. Spores are microscopic in size (2-100 micrometers) and vary in size and shape. Spores may travel several ways; passively moved (by a breeze or water drop), mechanically disturbed (by a person or animal passing by), or actively discharged (usually under moist conditions or high humidity).

Toxins – proteins produced by molds, which cling to mold spores and can cause allergies and other health effects.

APPENDIX A

REFERENCES

GOVERNMENT PUBLICATIONS

1. Department of Defense

Unified Facilities Criteria
http://www.wbdg.org/ccbref/pa_dod.php?category=pa

UFGS 01525, Safety and Occupational Health Requirements

UFGS 13281N, Engineering Control of Asbestos Containing Materials

UFGS 13282N, Lead in Construction
2. Chief of Naval Operations

SECNAV/OPNAV Directives Control Office
N09B15
Washington Navy Yard, Bldg. 36
720 Kennon Street, SE Rm 203
Washington Navy Yard, DC 20374-5074
Phone (202) 433-4934/5/6
<http://neds.nebt.daps.mil/usndirs.htm>

OPNAVINST 5100.23F, Navy Occupational Safety and Health Program Manual

CNO Letter 5100 Ser 4540/IU595518, 22 June 2001 (<http://www.navosh.net>.)
3. Naval Facilities Engineering Command

Commander
Naval Facilities Engineering Command
1322 Patterson Avenue SE Suite 1000
Washington Navy Yard, DC 20374-5065
Phone (202) 685-9078
<http://www.navfac.navy.mil/>

NAVFACINST 5100.11J,
NAVFACENGCOM Safety and Health Program
4. Navy Environmental Health Center

Commanding Officer
Navy Environmental Health Center
20 John Paul Jones Cir Ste 1100
Portsmouth VA 23708-2103
Phone: (757) 953-0700
<http://www-nehc.med.navy.mil/>

Industrial Hygiene Field Operations Manual

Medical Matrix Manual
5. U.S. Army Corps of Engineers

4820 University Square
Huntsville, AL 35816-1822
<http://www.hnd.usace.army.mil/techinfo/>

EM-385-1-1, Safety and Health Requirements Manual

6. U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM)

United States Army Center for Health Promotion & Preventive Medicine
5158 Blackhawk Road
Aberdeen Proving Ground, MD 21010-5403
Phone (800) 222-9698
<http://chppm-www.apgea.army.mil>

Army Facilities Management Information document on Mold Remediation Issues, USACHPPM TG 277, February 2002

Health Effects of Mold, USACHPPM Information Paper, 28 February 2002

Preventing Mold in the Home, USACHPPM Fact Sheet, February 2002

Industrial Hygiene and Preventive Medicine Mold Assessment Guide, USACHPPM TG 278, February 2002

7. Environmental Protection Agency

Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Mail Code 3213A
Washington, DC 20460
Phone (202) 260-2090
<http://www.epa.gov>

Mold Remediation in Schools and Commercial Buildings, EPA 402-K-01-001, March 2001

A Brief Guide to Mold, Moisture and Your Home

8. New York City Department of Health

<http://www.ci.nyc.ny.us/html/doh>

Guidelines on Assessment and Remediation of Fungi in Indoor Environments

9. Occupational Safety and Health Administration (OSHA)

200 Constitution Avenue, NW
Washington, DC 20210
<http://www.osha.gov>

29 CFR 1910.1200, Hazard Communication Standard

29 CFR 1910.134, Respiratory Protection Standard

NON-GOVERNMENT PUBLICATIONS

1. American Society for Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)

ASHRAE
1791 Tullie Circle, N.E
Atlanta, GA 30329
Phone (800) 527-4723
or (404) 636-8400
<http://www.ashrae.org>

ANSI/ASHRAE 55-1992 (with addendum 55a-1995), Thermal Environmental Conditions for Human Occupancy (NOTAL)

ANSI/ASHRAE 62-2001 (with addendum 62a-1990), Ventilation for Acceptable Indoor Air Quality (NOTAL)

2. American Society for Testing and
Materials

ASTM International
100 Barr Harbor Drive
PO Box C700
West Conshohocken, PA 19428-2959
<http://www.astm.org>

ASTM Manual 18, Moisture Control in
Buildings

ASTM Manual 40, Moisture Analysis and
Condensation Control in Building
Envelopes

APPENDIX B ADDITIONAL WEB RESOURCES

Occupational Safety and Health Administration (OSHA)	Mold and Fungi http://www.osha.gov/SLTC/molds/index.html
	Indoor Air Quality (IAQ) http://www.osha.gov/SLTC/indoorairquality/index.html
Army Center for Health Promotion and Preventive Medicine (USACHPPM)	USACHPPM Mold Resources http://chppm-www.apgea.army.mil/mold
	Mold Investigation Decision Logic notes http://chppm-www.apgea.army.mil/mold/Mold_Investigation_Decision_Logic.pdf
	Mold Related Health Complaints – An Integrated Clinical and Environmental Approach http://chppm-www.apgea.army.mil/mold/Mold_Treatment.pdf
	USACHPPM Tri-Fold, Preventing Mold in the Home http://chppm-www.apgea.army.mil/mold/Mold_Prevention_Home.pdf
American Industrial Hygiene Association (AIHA)	Report of Microbial Task Force http://www.aiha.org/Committees/documents/webmicrobial.pdf
	Facts about Mold: For Everyone http://www.aiha.org/governmentaffairs-pr/html/mold-consumer.htm
U.S. Environmental Protection Agency (EPA)	New Residential Mold Guide http://www.epa.gov/iaq/molds/moldguide.html
	Mold Resources http://www.epa.gov/iaq/pubs/moldresources.html
U.S. Centers for Disease Control and Prevention	Molds in the Environment http://www.cdc.gov/nceh/airpollution/mold/moldfacts.htm
	Questions and answers on Stachybotrys chartarum and other molds http://www.cdc.gov/nehc/airpollution/mold/stachy.htm
	National Center for Environmental Health (NCEH) http://www.cdc.gov/nceh/airpollution/mold

California Research Bureau Reports	Molds, Toxic Molds, and Indoor Air Quality http://www.library.ca.gov/crb/notes/v8n1.pdf
California Department of Health Services (CDHS) – Indoor Air Program	Indoor Air Quality info Sheet: Mold in My Home: What Do I Do? http://www.cal-iaq.org/mold0107.pdf http://www.cal-iaq.org/mold0107.htm http://www.cal-iaq.org/iaqsheet.htm#Mold http://www.cal-iaq.org/iaqsheet.htm
CDHS Environmental Health Investigations Branch (EHIB)	Information on Indoor Mold http://www.dhs.cahwnet.gov/org/ps/deodc/ehib/EHIB2/topics/mold.html Misinterpretation of Stachybotrys Serology, November 2000 http://www.dhs.cahwnet.gov/org/ps/deodc/ehob/EHIB2/PDF/Stachy_Serology.pdf
Minnesota Department of Health	Mold In Homes http://www.health.state.mn.us/divs/eh/indoorair/mold/index.html Indoor Mold: Health Hazard Identification and Control http://www.health.state.mn.us/divs/eh/indoorair/mold/hazardid.html
University of Minnesota, Department of Environmental Health and Safety	Fungi in Buildings http://www.dehs.umn.edu/iaq/fungus Fungal Abatement Safe Operating Procedures http://www.dehs.umn.edu/iaq/sop.html Managing Water Infiltration into Buildings http://www.dehs.umn.edu/iaq/flood.html
Washington State Department of Health	Got Mold? Frequently Asked Questions http://www.doh.wa.gov/ehp/ts/IAQ/Got_Mold.html Is Indoor Mold Contamination a Threat to Health? http://www.doh.wa.gov/ehp/oehas/mold.html
Montana State University	Healthy Indoor Air for America's Homes Project http://www.montana.edu/wwwcxair Eliminate Molds, Excessive Moisture and Other Biological Pollutants http://www.montana.edu/wwwcxair/facts_mold.html

APPENDIX C

FACILITY ASSESSMENT CHECKLIST

Inspection Date: _____ Building Number: _____

Inspector: _____ Room: _____

Potential Sources of Contamination	Comments
Water Damage To: <ul style="list-style-type: none"> • Walls • Ceiling • Carpets 	
Missing Ceiling Tiles/Panels	
Visible Mold Growth	
Odors, Unsanitary Conditions	
Renovation/Construction Activity	
HVAC System: <ul style="list-style-type: none"> • Number of Units • State of Repair • Condition of Supply and Return Air Grills • Location of Fresh Air Intakes • Condition of Filters 	
Area Condition/Information: <ul style="list-style-type: none"> • Temperature • Humidity • Chemicals (Solvents, cleaners, air fresheners) • Water Leaks • Housekeeping • Modular Furniture • Area Use • Adjacent Area Use 	
List any other significant findings:	