

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE	PAGE 1 OF PAGES 20
2. AMENDMENT/MODIFICATION NO. 0004	3. EFFECTIVE DATE 11/23/2011	4 REQUISITION/PURCHASE REQ NO. N/A	PROJECT NO. (If applicable)	
6. ISSUED BY Contracting Division USCG, Facilities Design & Construction Center 5505 Robin Hood Road, Suite K Norfolk, VA 23513-2431		7. ADMINISTERED BY (If other than item 6.) Code N/A		
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)			<input checked="" type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO. Project No. 75-2724117
			<input type="checkbox"/>	9B. DATED (SEE ITEM 11) October 19, 2011
			<input type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ORDER NO.
				10B. DATED (SEE ITEM 13)
CODE	FACILITY CODE	11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS		
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers _____ is extended <u> X </u> is not extended . Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning 1 copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. ACCOUNTING AND APPROPRIATION DATA (if required)				
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.				
<input type="checkbox"/>	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14. ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.			
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATION CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103 (b).			
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:			
<input type="checkbox"/>	D. OTHER: (specify type of modification and authority)			
E. IMPORTANT: Contractor <input type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return ___ copies to the issuing office.				
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)				
<b>PROJECT 75-2724117 DESIGN AND CONSTRUCT DEEPWATER ENGINEERING AND WEAPONS TRAINING BUILDING, PHASE 1 AT U. S. COAST GUARD TRAINING CENTER (TRACEN), YORKTOWN, VA</b>				
Attached is the Attendance Log for the Site Visit conducted on November 10, 2011.				
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR (Same as Item 8)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY	16C. DATE SIGNED	
_____ (Signature of person authorized to sign)		_____ (Signature of Contracting Officer)		
NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE	30-105	STANDARD FORM 30 (REV.1-83) Prescribed by GSA FAR (49 CFR) 53.243	0224-3(10-90)	

**AMEND SOLICITATION NO. HSCG47-09-R-3EFK03/X0010 AS FOLLOWS:****1. PERTAINING TO GENERAL REQUIREMENTS**

Incorporate the following paragraph into the General Requirements:

**Proposal Acceptance Period:** 60 calendar days from receipt of offer.

**2. PERTAINING TO SPECIFICATIONS**

a. Section 00102, Paragraph 1.2.1 – add the following Reference documents to the table:

- NEPA - APPENDIX I National Environmental Policy Act Resource Information: Categorical Exclusion w/ Environmental Checklist & Supporting Information dtd 24 June 2009: Coastal Zone Management Act Consistency Determination submitted 8 July 2009
- Odyssey Battery Techbook for MTU 20V4000 Engine.pdf - **ODYSSEY Application Manual**
- Photos - Existing Tech Class & Lab
- Photos - MTU Delivery
- TM 5-803-5 – INSTALLATION DESIGN GUIDE
- Yorktown VNG Invoice and Dominon Power Sch 10 rate 03-19-10
- Adira Waterline Construction Drawings

b. Section 01110 – add new paragraph 1.1.3.8 as follows:

The contractors shall contact Ms. Margaret Chichoracki (757-652-9133; margaret.cichoracki@tognum.com), Project Manager MTU Large Engine Service Center, for the following files regarding engines MTU 20V4000 and 20V1163:

- 20V1163TB73L - Installation Drawing 5840102301;
- Removal Spaces & Weights M061891\_21E;
- Series 1163 Basic Mounting Info
- 20V1163TB73L – Fluid and Lubricant Specification
- 20V4000M93L - Installation Drawing XZ59600000045;
- Removal Spaces & Weights MS68001\_01E;
- Series 4000 Basic Mounting Info
- Electronics/Controls - Installation MTU Electronics Systems E530606\_07E
- 20V4000M93L – Fluid and Lubricant Specification;

c. Section 01158

- i. Paragraph 1.10.2.1: Delete the reference to NFPA 11 and NFPA 16.
- ii. Delete paragraph 01158, 1.10.1.1. (g).
- iii. Paragraph 1.11.7.2: Replace MTU20V4000M93L with MTU20V1163TB73.
- iv. Paragraph 1.11.7.4: Replace MTU20V4000M93L with MTU20V1163TB73.

- v. Paragraph 1.11.8.1: Add the following requirement: Contractor shall provide both a Certified Electronic and a Certified Mechanical Technical Rep. The certifications shall be based on 20V1163 engine and 20V4000 engine.
  - vi. Paragraph 1.11.8.3: Replace the 400 in MTU20V400M93L with 4000 to read MTU20V4000M93L
  - vii. Paragraph 1.11.8.7: Delete the following from the paragraph:  
  
“and referenced drawings 154-WPC-259-301 (Rev 5) and MTU 584 002-23-14, 5830040009”.
  - viii. Paragraph 1.12.1.5: Delete the last sentence.
  - ix. Paragraph 1.13.1.3.a): Revise first sentence to read: "New distribution system transformer shall be a pad mounted, 4.16 KV primary voltage, less flammable liquid insulated, two winding, 60 hertz, 65 degree C rise, self cooled, 95 KV BIL rated type.
- c. SPACE CRITERIA SHEETS
- i. Replace Space Criteria Sheet 22 with revised sheet 22.

### 3. **PERTAINING TO DRAWINGS**

Under Drawing A003, Sheet 7 of 8, “Equipment Layout”, has been revised for Items 13 and 14 and Notes 7, 8, & 10.

#### 4. RFI RESPONSES

1. Please advise if there will be a scheduled site visit to the Navy's Cheatam Annex Warehouse 11 to review the crating of the engines to be relocated in order for the contractors to determine what is required for pricing the rigging and transporting.

**RESPONSE:** No site visit planned. Contractor is provided photographs. See amendment above.

2. Specification section 01158 paragraph 1.10.2.1 requires that "the sprinkler system shall be in accordance with NFPA 11, NFPA 13, and NFPA 16." NFPA 11 is the "Standard for Low-, Medium-, and High-Expansion Foam," and NFPA 16 is the "Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray systems." Neither foam nor foam-water systems are specifically addressed by the RFP; Please clarify their extent.

**RESPONSE:** Delete References to NFPA 11 and 16. Sprinkler system for the facility shall be designed in accordance with NFPA 13.

3. Specification section 01158 paragraph 1.10.1.1(g) requires "combination speaker/strobes connected to the fire alarm system..." Paragraph (c) states that mass notification is not required.

Is a voice fire alarm system required?

**RESPONSE:** A "voice" fire alarm system is not required.

4. Does Training Center Yorktown have an Air Quality permit? If so, is the Coast Guard anticipating a requirement to update or revise based upon the impacts of the new building and its emissions?

**RESPONSE:** Yorktown has an Air Quality permit and will revise the permit for the new building.

5. Are electric and natural gas rates available for the Yorktown facility?

**RESPONSE:** Yes, electric and natural gas rates are available (see amendment above). However, Contractor responsible for confirming the accuracy of the provided data.

6. For use in HVAC loading and Energy Modeling, can the Coast Guard provide an estimate of engine run time per day/ week/ month/ year?

**RESPONSE:** The following are "best guess" since the training analysis is not completed and the curriculum is under development:

20V1163TB73L ~ 300 hours/annual

20V4000M93L ~ 900 hours/annual

7. Please supply drawing 154-WPC-259-301. It is a plumbing drawing showing diesel engines exhaust and is referenced in the RFP Section 01158 1.11.8.7 Engine Muffler/Exhaust.

**RESPONSE:** See amendment above regarding reference to drawing 154-WPC-259-301 in Section 1.11.8.7 and the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

8. Stationary engines are required by the EPA to conform to specific emissions standards. The emissions rates permissible depend upon the proposed use of the engine. Specific exceptions are granted for engines which run infrequently. The engines in this facility will not fall within the definition of an "emergency" engine (driving a generator for standby power). Therefore, according to EPA and Virginia regulation, they must conform to more stringent emissions standards, which require exhaust after-treatment. The RFP does not address exhaust after-treatment. May we assume there will be an exemption for this facility or are offerors responsible for developing controls for engine exhaust emissions?

**RESPONSE:** Contractor will be responsible for ensuring the requirements for the EPA air emissions regulations have been addressed by the responsible parties. See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

9. Specification Section 01158 1.11.8.3 requires a jacket water storage tank to "hold treated jacket water during engine tear-down". Should offerors also provide a storage tank for the lube oil "during engine tear-down"?

**RESPONSE:** Yes - DOR shall determine based on maintenance training requirements and MTU requirements. As a minimum it shall hold full engine lube oil capacities.

10. Should offerors provide a waste lube oil storage tank and/or a lube oil make-up tank?

**RESPONSE:** Yes - DOR shall determine based on maintenance training requirements and MTU requirements. As a minimum it shall hold full engine lube oil capacities.

11. Full engine tear-downs often include removal of the crank shaft. The RFP floor plan does not provide adequate space for crank shaft removal. Should offerors increase the engine lab square footage and layout to facilitate crank shaft removal during engine teardown?

**RESPONSE:** There is no floor plan in the RFP. This level of engine rebuild requires certifications the CG does not presently have for these series of engines. We will never remove the crankshaft of either engine. We will need clearance to drop the oil pan. The Offeror is free to do whatever the Designer of Record (DOR) deems necessary to achieve the requirements of the activity to be located in the space within the parameters defined by the specifications and associated documents.

12. There are two large areas reserved for "Engine Batteries". Please confirm the space requirements for the battery room.

**RESPONSE:** Amend Space Criteria Sheets. Engine Lab Battery Area (Page 22) - Equipment: Battery Storage Shelf/ Rack (Min. 2' Deep and 8' Wide)

13. Should design of the Engine Labs include louvers for ventilation air during engine operation?

**RESPONSE:** See ventilation requirements for engine labs in specification section 1.12.1.9.

14. Specification Section 01110 1.11.5.2 - Please confirm that all utility cutovers and interruptions must be scheduled outside of normal working hours.

**RESPONSE:** All utility cutovers and interruptions must be cleared with the COR prior to execution at which time the timeframe will be coordinated.

15. Per Section 01158, 1.4 Civil and Sitework Design, 1.4.1.4, it states to design the fire access road per the AHJ. Please provide the name and contact number of the AHJ. Please clarify if a fire access route will be required around any portion of the proposed building.

**RESPONSE:** AHJ for this project shall be FDCC. Contractor to follow the NFPA code for fire truck accessibility.

16. Per Amendment 0003, Sheet C102, #8 denotes in 2 places to connect to existing water line and construct a looped water system and provide all appurtenances. What size and material type is the existing water line that is to be looped?

**RESPONSE:** 8" PVC 900. Contractor shall be responsible for verifying this data during his design phase.

17. Per Section 01158, 1.4 Civil and Sitework Design, 1.4.1.5, it states to provide ingress/egress...see RFP drawings for schematic. RFP drawing C101 indicates ingress but no egress or maneuvering areas. Please clarify the intent of this requirement.

**RESPONSE:** Both ingress and egress to the site is along existing travel ways. Intent is to provide required WB50 maneuverability to the new building's receiving area.

18. Per Section 01158, 1.4 Civil and Sitework Design, 1.4.4.3 Sanitary Sewer, it states to verify the capacity of the existing Sanitary Sewer Lift Station for the additional building flow. Please provide the current maximum design information for the existing Lift Station.

**RESPONSE:** Contractor to assume the existing lift station is adequate for his proposal but shall include in his base bid the cost for verifying the adequacy of the existing lift station.

19. Per Section 01158, 1.4 Civil and Sitework Design, 1.4.4.3 Sanitary Sewer, it states to design the sanitary sewer for phase II and III. Please provide fixture counts or average daily flow for these two phases of future development.

**RESPONSE:** All information has been provided in the RFP and the accompanying Basic Facility Requirements and Space Criteria Sheets.

20. Per Section 01158, 1.4.3 Water Systems, 1.4.3.2 Water Service to New Building, it states connect to nearest existing water line. From the survey, it appears that adjacent buildings potable water lines are from an existing dedicated 2" potable water line separate from the existing dedicated 6" fire line. Will connection to the existing 6" FW line for the potable water for the proposed building and reconnection of the existing 1" potable water line be acceptable?

**RESPONSE:** The existing 1" potable waterline is to be reconnected to the new 8" waterline (see amendment above, Adira Waterline Construction Drawings, sheet C117). Suggested looping should be with the existing 6" FW line that is to be converted to a potable water line under the existing waterline replacement project (see Amendment above, C116) and the new 8" line that the 1" will be tie into. Contractor shall be responsible for verifying this looping suggestion.

21. Section 1.13.1.3 states that transformer is to have a 13.2kV primary rating, but 1.13.1.1 states that the service voltage is 4.16 kV, which voltage is correct?

**RESPONSE:** Paragraph 1.13.1.3.a) will be changed by amendment to read "4.16 KV" rather than "13.2 KV".

22. Section 01158\_1.11 Paragraph 1.11.7 indicates engine MTU20V4000M93L requires 150 PSI compressed air to start. The same section indicates the compressed air system is to be designed for six consecutive starts. What are the requirements for the air starter---air volume per start, pressures, temperature, and moisture content? What constitutes a "start"---duration? How frequently is a start cycle used, i.e., hours between successful start?

**RESPONSE:** Section 01158\_1.11.7.2 and 1.11.7.4 incorrectly designated the 20V4000M93L requiring air start. The air start requirement is specifically for the 20V1163TB73 engine. The 20V4000M93L requires 24VDC for start and a separate 24VDC system for control. The duration of an actual start period and other specific starter data is proprietary MTU information. Six consecutive starts implies one immediately after the other. Please note, this is a training engine and start/stop procedures is part of our training program.

23. Section 01158\_1.11 Paragraph indicates to provide two compressed hose reels for each engine lab. Will these hose reels require pressure reduction or is the intent to send 150 PSI compressed air to the hose reels. If the reels require pressure reduction will that be individual or one time for all four.

**RESPONSE:** Each hose reel shall be provided with the listed appurtenances in 1.11.7.3 to include pressure regulators and mechanical moisture eliminator.

24. Section 01158\_1.11 Paragraph 1.11.8 requires treated engine jacket water storage tanks. Please provide the water treatment chemicals with so that proper tank and pump material can be selected. What is the density/viscosity of the water?

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

25. Section 01158\_1.10 Paragraph 1.10.2.1 of the RFP indicates "Design of the sprinkler system shall be in accordance with NFPA 11, NFPA 13, and NFPA 16." Further in the same section it indicates that the entire facility be protected by a wet pipe sprinkler system according to NFPA 13 and makes no reference to a foam system. NFPA 11 and NFPA 16 relate to foam systems. Is the intent to provide a wet pipe sprinkler system throughout or are some areas to be protected by a foam system?

**RESPONSE:** Delete References to NFPA 11 and 16. Sprinkler system for the facility shall be designed in accordance with NFPA 13.

26. A plan layout showing the required extent of operation of the 5 Ton bridge cranes to be located over each engine pit areas as identified in Section 1.8.4 is requested. Is the operation area limited to the width and length of the pit or is it to extend beyond? If it is intended to extend beyond the pit area, what are the required extents?

**RESPONSE:** The travel of the bridge crane is over the entire area shown as "Open to Below" on the Upper Level drawing.

27. No utility rates are included in the RFP. Please provide utility rates to meet the requirements of the RFP with respect to the life cycle cost analysis.

**RESPONSE:** Utility rates are included with this amendment.

28. Space Criteria Sheets and Sections 01158-1.11/1.12 do not include estimates of the heat dissipation of the control equipment located in the Engine Control mock-up rooms. Can an estimate of these be provided to properly size the associated HVAC system required? In addition, is the intent of the RFP not to provide a dedicated HVAC system for the mock-up control rooms?

**RESPONSE:** The Engine Control mock-up rooms shall be treated as a regular office space with computer workstations set up for a teaching environment. A dedicated HVAC system is not required for the rooms.

29. Section 01158-1.11.8.5 permits for a roof-mounted cooling tower. Can other HVAC equipment such as Air Handling Units and Make-Up Air units and exhaust fans be allowed to be located on the building roof?

**RESPONSE:** There is no objection to roof mounted equipment.

30. Section 01158-1.11.8.7 Engine Muffler/Exhaust calls for fabrication and installation of muffler for each diesel engine in accordance with manufacturer recommendations and referenced drawings 154-WOC-259-301 (Rev 5) and MTU 584 002-23-14, 5830040009. None of the mentioned referenced material above can be located within the RFP documents. Requesting exhaust volumes, temperatures, allowable back pressures, and dB requirements for each engine.

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

31. Section 01158-1.12.1.8 Battery lab, please provide number of batteries stored in lab, number of cell in batteries and rated capacity of batteries in ampere-hours to properly size the associated HVAC make-up and exhaust air systems required.

**RESPONSE:** 8D Vented Lead Acid - 6 cells - 12VDC - 20 hour capacity = 255 ampere/hour, CCA = 1250 ampere/hours. Odyssey PC2250 - 6 cells - 12VDC - 120 hour capacity = 26 amp/hour, CCA = 1225 (This is also the battery specified for the 20V4000M93L). There are seven (6) battery stations. Each station will have two of each of the above batteries. Each station should have one of each type of charger mounted on the wall above the workstation.

32. One engine is referred to as a MTU20V4000M93L in many places. Section 1.11.8.3 calls it MTU20V400M93L. Which is correct?

**RESPONSE:** Correct engine model # is MTU20V4000M93L.

33. Engine coolant capacities identified in the documents, Section 1.11.8.3 for MTU20V400M93L 120 gal, Section 1.11.8.3 for MTU20V1163TB73 200 gal, Dwg. A003-Note 7: MTU20V4000M93L 154 gal. Please clarify which coolant capacity is correct for which engine.

**RESPONSE:** The approximate coolant capacities are: 20V1163TB73 = 700 liters, 20V4000M93L = 440 liters.

34. Section 1.11.8.5 requires an elevated tank to provide a "positive head on diesel engine raw water cooling pumps, heat exchangers, and piping." Does each engine have an associated heat exchanger? If so, please provide type, raw water flow rate, pressure drop, and expected delta T on each side. Are the raw water cooling pumps part of the engine? Size? Volume? Head? How driven? Type?

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

35. Section 1.11.8.2 notes the water brake dynamometer H3610. Drawing A003 indicates this is on the M93L engine. What loading device is used for the B73 engine? Is there a second water brake?

**RESPONSE:** Only 1 water brake is required as shown on the RFP drawings.

36. The heat dissipation data for the engines are confusing. There are multiple entries for a piece of equipment giving differing values. Please specify for each engine and water brake the heat dissipated through the raw water cooling system and the heat dissipated into the room space. Also, please use one constant set of units.

**RESPONSE:** See specification section 1.12.1.3 addressing heat dissipation from the engines.

37. Please provide a block flow diagram for the engine systems.

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

38. Will chemicals or other harmful agents be used in Classroom Labs 109A and 110A?

**RESPONSE:** Yes, but in limited quantities allowable by code.

39. The specification for modular carpet tiles as specified in Section 1.7.11 calls for a static dissipative backing and lists a very specific total ounce weight. Does all of the carpet tile need to be "static dissipative" carpet tile (such as Static Worx), or can it be assumed that a standard carpet tile can be used as long as it meets the 3.5kv requirement?

**RESPONSE:** All carpet tile is to be static dissipative.

40. Section 1.7.11.3, Wall finishes, g) requires that masonry walls have a coating with a thickness to coat all joints and roughness. Achieving this with a coating will not provide a smooth and level effect due to the allowable tolerances in concrete block construction. Please advise if complete uniformity, such as, concrete skim coat, plaster or furred gypsum board will be required.

**RESPONSE:** 1.7.11.3 (g) – "For masonry and concrete walls exposed in occupied spaces, provide a textured or smooth, acrylic or acrylic-silicone based coating. Such systems shall be applied in thicknesses sufficient to "hide" any underlying roughness of the concrete surface and mortar joints in masonry walls."

Amendment #3 stated that the intent is to "truly hide all of the masonry joints and make them uniform". This was an error. A smooth and level effect is not being specified. Suppression of the roughness to a level that is common for an interior CMU wall finish is the objective.

41. Section 01158 Paragraph 1.10.2 requires that a fire pump be provided. The RFP does not require an emergency generator for the facility. Please confirm that the fire pump can be connected to the building electrical service ahead of the main service disconnect, that the power is deemed reliable for fire pump service., and that a generator is not required to serve the fire pump.

**RESPONSE:** Power to the Fire Pump shall comply with the requirements of NFPA 20. Power is considered reliable and connection may be made to the electrical service ahead of the building main service disconnect.

42. Section 01158 Paragraph 1.13.1.1.b identifies that the site distribution voltage is 4.16 KV and paragraph 1.13.1.3 identifies the service transformer primary voltage to be 13.2 KV. Please confirm that the distribution voltage and service transformer primary voltage is 4.16 KV.

**RESPONSE: Paragraph 1.13.1.3.a) will be changed by amendment to read "4.16 KV" rather than "13.2 KV".**

43. Section 01158 Paragraph 1.13.2.6 Please confirm that MC cable is not allowed concealed in wall construction for branch circuits and is only allowed above suspended lay-in ceilings.

**RESPONSE: Confirmed**

44. Section 01158 Paragraph 1.13.2.8.c Please confirm that GFCI outlets are required for Room 102 Student Break/Lobby which is a room without a water source.

**RESPONSE: Requirements of paragraph 1.13.2.8.c. do not apply to room 102; GFCI requirements only apply to areas meeting the NEC definition of a "kitchen".**

45. Section 01158 Paragraph 1.13.3.2.b This paragraph requires a 24 DC distribution. Please provide information that can be used to determine the required output capacity of the system including the power required for the engine start the laboratory DC load and the load for the engine control mock-up work stations.

**RESPONSE: Refer to engine data for engine start requirements. Laboratory DC load may be based on circuit requirements identified in the RFP specification. DC load for equipment control mock-up cannot be determined prior to contract award as the mock-up will not be constructed until after contract award.**

46. Section 01158 Paragraph 1.14.4.8 This paragraph references the Main Equipment Room. Please confirm that this room is defined as the Server room on the drawings.

**RESPONSE: The Main Equipment Room referenced in Paragraph 1.14.4.8 and the Server Room indicated on the drawings are the same space.**

47. Section 01158 Paragraph 1.12.1.5 This paragraph indicates that the telecommunications room air conditioning system shall be emergency power. Please confirm that emergency power is not required for this project. Emergency lighting will be by battery units or battery ballasts.

**RESPONSE: Emergency power is not required for this project.**

48. Drawing A001: Please clarify the function of the teaching platforms as ramp access is needed due to UFAS requirements. Is modifying the dimensions of the teaching platforms a design option?

**RESPONSE: The teaching platform is to increase the visibility of the instructor and teaching aids. Modifying the dimension of the platform is an option to comply with UFAS requirements.**

49. Specification Section 01158-1.5.3 states that "For bidding purposes, assume the following regarding foundation design: a) Pile foundations shall be used for support of this two story

building. b) The type and capacity of the piles shall be as recommended by the geo-technical consultant retained by the Contractor." There is not sufficient information provided to allow the contractors to price the assumed piling. If the Owner wants us to price piling based on an assumption, then the type, depth and quantity of piling should be provided. We suggest deleting paragraph 01158-1.5.3 and replacing it with the following "The type and capacity of the foundations shall be as recommended by the geo-technical consultant retained by the Contractor." Please confirm.

**RESPONSE:** As stated in 1.5.1, Owner has not conducted a geo-tech investigation for this specific project and site. The paragraph 1.5.3 shall not be deleted. Contractor's geo-tech in consultation with the contractor's structural engineer will advise on the type of pile, depth of pile, and the number of piles required for bidding purposes based on the available data attached to the RFP. This structure shall be supported on piles and not shallow foundation. See 1.5.4 for final design after award.

50. Specification 01500-1.2.1 Please advise if there an alternate entrance for construction workers. If an alternate entrance for construction workers is not available how much time should be allotted to pass through security at the main gate?

**RESPONSE:** No alternate entrance is available. This facility has similar security entrance requirements as a DOD facility and, therefore, the Contractor will have to consider when determining allotment times for entry.

51. Specification Section 01575-3.4.3 and 3.5 Please confirm that no hazardous materials including VOLATILE ORGANIC COMPOUNDS have been identified, that no remediation of hazardous materials are included in the base contract and that encountering of any hazardous materials will be treated as an unforeseen site condition.

**RESPONSE:** Confirmed except for areas identified on the RFP Drawing C102.

52. Specification section 01158-1.4.3 refers to two simultaneous on-going projects (FY 2011) that involve upgrades to the TRACEN Yorktown water system: the on-base water line upgrades and the off-base water line upgrades. In order to allow coordination with these projects please provide their anticipated completion dates.

**RESPONSE:** The on-base water line work is scheduled for an August 4, 2012 completion date. The off-base water line work was substantially complete November 16, 2011. All that remains is punch list work.

53. Specification Section 01158-1.4.3.2c and 1.10 The referenced specification sections state the Contractor is to determine the Fire Protection system requirements and that the system must be in compliance with NFPA Codes. Please confirm that due to the presence of the Engine Lab and use of combustion engines, NFPA section 21.6 will apply and the building will be classified as Extra Hazard Group 1.

**RESPONSE:** Designer of Record shall determine all applicable NFPA codes.

54. RFP Section 01158, para 1.3.4 discusses the stormwater management & E&S permitting requirements. We spoke with both York County and Virginia Department of Conservation & Recreation (DCR) regarding the stormwater and erosion & sedimentation control permitting requirements for the Yorktown project. Based on our conversation with Melinda at York County, being a Federal project, the County would deferrer all reviews to DCR. We contacted Holly Sepety at DCR who administers the stormwater management permitting in

the Central Office, per our conversation, the a General Permit for Virginia Stormwater Discharges from Construction Activities (VSMP) would need to be submitted to the Central Office. Erosion & Sedimentation Control along with Stormwater Management Permitting would be done at the Tappahannock Regional Office. However, in speaking with Kevin Landry of the Regional Office who heads up the Permitting section, being a Federal Project, they do not do reviews or issue permits. They will gladly review plans to ensure compliance, but they have never reviewed or issued permits associated with work done at the Yorktown Facility. Mr. Landry believes that all reviews are internal to the Coast Guard. As it appears neither the State or County reviews plans for Federal Facilities, other than the VSMP application which is submitted to DCR's Central Office, will other submittals be required?

**RESPONSE:** This is the Contractor's responsibility to verify that all permitting requirements are properly addressed and approved.

55. Reference Paragraph 1.13.1.1(b)(1) of Section 01158\_1.13. RFP Drawing no. 752724117SP1 indicates 2 electrical ductbanks. One ductbank is to be relocated per keynote 3. The second ductbank is to be relocated "if necessary" per keynote 8.

*Is the relocation of the 2<sup>nd</sup> ductbank deemed necessary if it falls within the footprint of the future expansion?*

**RESPONSE:** Yes

56. Reference Paragraph 1.14.2.1 of Section 01158\_1.14.

*Will the telecommunications require a RCDD to sign and seal the design drawings?*

**RESPONSE:** Yes, an RCDD (Registered Communications Distribution Designer) shall sign and seal the design drawings.

57. Please see the attached PDF. The surveys provided have differing data on spot elevations.

*Please tell us which survey is correct?*

**RESPONSE:** Survey data clarification was provided in previous amendment. Contractor responsible for determining which datum to use.

58. Are ramps required at the platforms in Rooms 109 and 110?

**RESPONSE:** Ramps in Rooms 109 and 110 are dependent upon the requirements of the IBC.

59. Are ramps required at the raised floors in Rooms 112A and 114A?

**RESPONSE:** Ramps are not required for Rooms 112A and 114A.

60. Are stairs or ladders required at the bilge voids in Rooms 112 and 114?

**RESPONSE:** Yes - Either type is permissible.

61. There are no railings shown at the bilge voids.

*What type of railings is desired?*

**RESPONSE: Railings are not permitted.**

62. RFP drawing AO2724117003 equipment schedule indicates power requirements for Engine Lab equipment to be 440V. 3 phase.

*Can this be 480V 3 phase or will a transformer be required to provide 440V?*

**RESPONSE: Transformer will be required.**

63. Section 01158, Paragraph 1.12.1.9 a) requires the engine labs be conditioned such that space temperature is maintained between 68 degrees and 80 degrees. Response to Question #19 of Amendment 3 verifies Paragraph 1.12.1.3 b) stating that the heat gain from the engines shall not be considered part of the space internal cooling load. The engines, while in operation, will be a very significant heat source to the space. If this heat gain is not considered in the calculations for cooling, the space will certainly exceed 80 degrees regardless of ventilation rate.

*Please clarify the requirement.*

**RESPONSE: Engine Labs shall be conditioned like any other conditioned space in the building. During times of engine operations, the A/C and heat to the labs shall automatically shut-down and ventilation shall be provided per requirements of 1.12.1.9.**

64. The RFP drawings shows (1) water break on MTU-4000. Is it the intention to not load the other engine, MTU-1163, or are there 2 water breaks? RFP Section 01158, Paragraph 1.11.8.5 requires that the cooling tower capacity be sufficient to cool the MTU-4000 and the water break while loaded, but does not address cooling for the MTU-1163.

*Please clarify the cooling requirements for both engines and associated water break(s).*

**RESPONSE: Only 1 water break is required as shown on the RFP drawings. The cooling tower will be GFE. Further information provided in later Amendment.**

65. *Is spray-in-place closed cell foam permitted as insulation in the wall cavity?*

**RESPONSE: The DOR is allowed that option.**

66. RFP section 1.13.1.1.a, page 1, indicates that the primary voltage of the service transformer for the projects should be at 4.16kV. However, paragraph 1.13.1.2.a, indicates that primary voltage of the transformer should be 13.2kV. Please clarify?

**RESPONSE: Paragraph 1.13.1.3.a) will be changed by amendment to read "4.16 KV" rather than "13.2 KV".**

67. There are references in the RFP, paragraph 1.13.2.6.g, page 4 for both, 480V and 208V systems. We are assuming that the secondary of the service transformer will be at 480/277V regardless of the primary voltage. Please confirm?

**RESPONSE: Selection of secondary voltage is the Contractor's option. Paragraph 1.13.2.6.g. notes color coding requirements for different voltage systems, as applicable.**

68. Please provide the detailed information shown in the manufacturer's drawings, or the manufacturer's drawings that include the loads of the engine's gearboxes, etc will exert on the building structure and systems, including but not limited to: structural reactions, details of any interface with mounting bolts for the equipment, heat to be rejected to the cooling towers per hour of run time, required volumes of combustion air in CFM, fuel oil requirements in GPM, required pressure and volume of compressed air to start any equipment. Information not included in the RFP cannot be anticipated or priced. This statement in the RFP is unreasonable.

**RESPONSE: See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.**

69. If requirements of the Installation Design guide are to be followed for any site planning, building design or signage please make this document available during the bid process so that the requirements can be anticipated in the bidding process.

**RESPONSE: See amendment above – TM 5-803-5 – INSTALLATION DESIGN GUIDE**

70. Paragraphs 1.7.3.1 conflicts with 1.7.3.2. Please confirm if 2" of rigid insulations is desired in the cavity or if an exterior wall assembly with a total R-Value of R-19 for the assembly is desired for all exterior walls including the wall where the future addition is planned.

**RESPONSE: An exterior wall assembly with a total R-Value of R-19 is desired for all exterior walls including the wall where the future addition is planned.**

71. Per RFP Specification 01110, paragraph 1.1.3, requires the contractor is to move the marine engines / accessories from inside the warehouse. What is the height and width of the warehouse door?

**RESPONSE: The dimensions of the door at Cheatam Annex Warehouse 11 is 13'10" high x 20' wide.**

72. Are there any height limitations inside the warehouse?

**RESPONSE: The crate for the 20V1163TB73 was lifted via crane onto trolley jacks and pushed into its present location. There were no issues with the height of the warehouse size of the door.**

73. Are the crates designed to be lifted like a pallet?

**RESPONSE: The crate for the 20V4000M93L was lifted via forklift and placed into its current location. The crate for the ZF gearbox was lifted via forklift and placed into its current location.**

74. Will the engines require any special cradle or cribbing to move them? If so, can you provide a drawing?

**RESPONSE: The crates are designed to be lifted by sling and load spreader via crane or as noted in responses to question #77 & #78.**

75. Are there any hazardous materials (fluids) inside the engines or crates?

**RESPONSE: The engines/gearbox will have residual oil from testing and desiccant used for moisture control.**

76. In the Engine Labs, the engine bilge void is 5' deep. What is the depth of the trenches?

**RESPONSE:** Contractor shall size trench using standard industrial engineering practices for providing adequate clearance for installation, operations, and maintenance systems.

80. During the site visit it was observed that part of the project site is being used as laydown area for an ongoing water line contract. Will the laydown area be removed before this project begins?

**RESPONSE:** Scheduled completion date for the waterline project is 04Aug2012. Contractor will be responsible for coordinating the clearing of the laydown area with the waterline contractor, Adira.

81. Located on the southwest corner of the site there's a covered vehicle storage structure. Will the structure be removed before this contract begins?

**RESPONSE:** If the structure is government owned, the government will remove it if it's in the way of the proposed site area. If the structure is related to the waterline contract, see answer to question #80.

82. The RFP specification section 01158 paragraph 1.11.8 says "The contractor shall install and commission GFE as indicated in this and associated drawings and documents. Drawing A003 in the connection column lists MTU drawing numbers for items 1, 6, 7, 8, 13, 14, 15, 16, 18, A, C, E, H, I, J, K, L, and S. These drawings provide us details to design the engine pits and associated utilities so we urgently need them to complete our concept design. Can you provide copies of the drawings? We have signed and returned a Non-Disclosure Agreement to Margaret Cichoracki, Project Manager, MTU, Tognum Group.

**RESPONSE:** No, you will have to obtain them - See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

83. Drawing A003, the connection column for items M and N says "Hose piping pending additional information". What's the additional information?

**RESPONSE:** Plumbing requirements will be coordinated with the MTU requirements. See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

84. Drawing A003, the connection column for items 11 says "Per MTU Specification". Can you provide the MTU specification?

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

85. Drawing A003, none of the power requirements indicate the amperage required. Can you provide the size of the panels and amperage required for each piece of component requiring electrical service.

**RESPONSE:** The table on sheet A003 is intended only to indicate responsibility for providing and installing equipment items. Sizing of electrical panels and equipment loads will need to be determined by the Contractor during the design phase. See amendment above regarding the

requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

86. Sheet 7 of 8 of the RFP drawings indicate compressed air is required for the 20V1163 engine. Specification section 01158 para 1.11.7 indicates the 20V4000 engine requires compressed air for starting. Do both engines require compressed air? What size air compressor is required?

RESPONSE: Section 01158\_1.11.7.2 and 1.11.7.4 incorrectly designated the 20V4000M93L requiring air start. The air start requirement is specifically for the 20V1163TB73 engine. The 20V4000M93L requires 24VDC for start and a separate 24VDC system for control. Designer of Record shall determine air compressor size during design phase. See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

87. By our calculations, approximately 90 SF of louver openings will be required to properly ventilate the engine lab. While acoustical louvers are available, their STC is only in the range of 8-16, not STC 60 as required for the exterior walls. What Sound Transmission Class is required for louver penetrations?

RESPONSE: The intent of the STC 60 rating for the exterior walls is to minimize the noise transmitted to the adjacent neighborhood. Exterior wall shall be designed to STC 60. Provide maximum STC louver commercially available.

88. Confirm that all listed STC ratings in the Room Data sheets are required. We noted that there is an STC rating for the vending area which does not have a door.

RESPONSE: DOR is free to add doors or apply STC rating to remaining walls.

89. Confirm that STC rated floor assembly is required in the Education Wing. This is unusual for an educational/classroom facility and will add significant cost. Acoustic isolation is generally provided between teaching spaces and adjacent spaces.

RESPONSE: Apply STC rating as specified.

90. Confirm that STC rated partition construction is desired on the second floor between the men's Toilet and the Faculty Men's toilet.

RESPONSE: Apply STC rating as specified.

91. Confirm that STC rated partitions are desired around the Utility Closet, Building Maintenance, the Telcom closet, building Maintenance, IT Server room and electrical room, the Egress stair and between the battery lab and the corridor. In general we believe that slab-to-slab partitions in these areas will provide adequate acoustic isolation.

RESPONSE: Apply STC rating as specified.

92. Confirm that the travel of the bridge crane is over essentially the entire area shown as "Open to Below" on the Upper Level floor plan.

RESPONSE: The travel of the bridge crane is over the entire area shown as "Open to Below" on the Upper Level drawing.

93. Confirm that the size of the wells where the engines will be mounted is adequate to install all equipment shown on sheet A003 of the RFP drawings, including all required clearances for maintenance and code requirements.

**RESPONSE:** Assume "wells" to be adequate to accommodate required clearances and requirements.

94. We do not see a requirement for any type of grating in the wells where the engines will be mounted. Please confirm that nor gratings are required, or if they are required define requirements including height above the 5 foot deep concrete floor.

**RESPONSE:** The use of grating is not required.

95. Sheet A001 of the RFP drawings indicates a "12' w x 14' H, cased opening". This drawing also shows glazing in the opening. Room data sheets and the specification indicate that hollow metal doors and frames with glazing are required. In order to meet the STC 50 requirement for the Engine lab confirm that an STC rated curtainwall system is required.

**RESPONSE:** Space Criteria Sheet 24 of 47 (Engine Mock-Up Lab): The note states "Exterior door is to be built into a walled-in 12'W x 14'H cased opening. The cased opening allows demo and reconstruction for the installation and removal of the engine mock-up." Neither the Specifications nor the Space Criteria Sheet require glazing in the opening.

96. Confirm that the 8 foot ceiling height noted for the mechanical loft areas in the Engine Lab is to the underside of the roof framing.

**RESPONSE:** Eight feet is the required clearance space not the height of the structural roof framing.

97. RFP drawings indicate the south wall of the building as being single wythe masonry. Confirm that brick is not required on this face.

**RESPONSE:** Although brick is not required on the south face, Specification paragraph 1.7.1.2 challenges the DOR to make the building appear to be a completed structure.

98. RFP drawings indicate the south wall of the building as being single wythe masonry. The room data sheets indicate that rooms along the south exterior wall are to have masonry partitions. This is in conflict with the RFP requirement to provide an R-19 wall assembly in these areas. Confirm that it is acceptable to install interior wall furring with the depth required for R-19 insulation to be covered with abuse resistant gypsum board.

**RESPONSE:** In accordance with Spec. paragraph 1.7.1.1: The Specifications and Space Criteria Sheets take priority over the drawing.

99. No access into the engine pits is shown. Confirm that vertical ladders are acceptable.

**RESPONSE:** Vertical ladders are acceptable.

100. What are the combustion air requirements for each engine? Include both required cfm and velocity requirements.

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

101. What are the venting requirements for each engine? Include both required cfm, velocity requirements and the diameter of the vent.

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

102. What is the vent discharge temperature for each engine?

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

103. Please confirm that all heat dissipated indicated on A003, notes 1 and 9, are dissipated to the cooling water, which is dissipated through the cooling towers. Also, confirm that MTU will be providing the heat exchanger that connects directly to the engines and that the heat exchanger will be located in the engine pit. If the heat exchanger is not to be located in the engine pit give the location and confirm that MTU will be providing any piping pumps required to provide adequate flow through the heat exchanger. Provide specifications for the heat exchanger including cooling tower water gpm, and entering and leaving water temperature requirements.

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer. Contractor will be able to obtain the information requested in his RFI once he obtains a copy of the proprietary information.

104. Section 01158\_1.11, page 4 of 5, 1.11.8.3: Please confirm jacket water storage tank volumes listed include two times the engine volume.

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

105. Section 01158\_1.11, page 4 of 5, 1.11.8.3: Please indicate raw water storage tank volume.

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

106. Provide sizing criteria for fuel piping. Confirm that fuel oil piping will be terminated at the edge of the engine pit for connection by MTU.

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

107. Provide an allowance to purchase the muffler/exhaust/inlet systems from MTU or provide detailed design requirements for these systems.

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

108. Provide detailed design requirements for item 16 raw Water Piping including the location of the raw water storage tank(s) for both engines. (A003)

**RESPONSE:** The table on sheet A003 is intended only to indicate responsibility for providing and installing equipment items. All equipment items will need to be determined by the Contractor during the design phase. See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

109. Confirm that the cooling towers cannot be located on grade where they will be more easily serviced.

**RESPONSE:** Cooling towers are to be roof mounted.

110. Confirm that 440v power is required instead of 480v power. This is listed in several locations. (A003)

**RESPONSE:** 440 volt power is required where noted on sheet A003.

111. Provide the required voltage and ampacity of all electrical panels in the engine Lab by item number.

**RESPONSE:** Required voltage and ampacity of electrical panels will need to be determined by the Contractor during the design phase based on equipment selected. See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

112. Provide any special details of the fuel filter piping for Item 5. (A003)

**RESPONSE:** The table on sheet A003 is intended only to indicate responsibility for providing and installing equipment items. All equipment items will need to be determined by the Contractor during the design phase. See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

113. Air starter, Item 11: confirm that the air starter, including the storage tank is government furnished. If not give the required storage volume of the air starter and the recovery rate of the compressor. (A003)

**RESPONSE:** The table on sheet A003 is intended only to indicate responsibility for providing and installing equipment items. All equipment items will need to be determined by the Contractor during the design phase. See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

114. Provide any special connection details for Item 17, the fuel oil piping. (A003)

**RESPONSE:** The table on sheet A003 is intended only to indicate responsibility for providing and installing equipment items. All equipment items will need to be determined by the Contractor during the design phase. See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

115. A003, Item M & N: provide the pending additional information for these pumps including any head/pressure requirements. Confirm that the pumps will be located in the engine pit

and that available space has been confirmed by the Government including any code clearances and maintenance space.

**RESPONSE:** The table on sheet A003 is intended only to indicate responsibility for providing and installing equipment items. All equipment items will need to be determined by the Contractor during the design phase. See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

116. Provide details of the require mounting of the engines and dynamometer and all structural reactions that these items will impose on the building structure.

**RESPONSE:** See amendment above regarding the requirement for Contractor to contact MTU for receiving proprietary information from the manufacturer.

**NOTE**

**Failure to acknowledge amendments may be cause for rejection of your offer.**



SITE VISIT ATTENDANCE LOG

Date: November 10, 2011

Contract No. and Title: HSCG47-09-R-3EFK03/X0010 Design and Construct Deepwater Engineering and Weapons Training Building, Phase 1 at U. S. Coast Guard Training Center (TRACEN), Yorktown, VA

***List of Those Present:***

<b>NAME (Please Print)</b>	<b>AFFILIATION/POSITION</b>	<b>TELEPHONE NO./Email</b>
Heather Salisbury	FDCC/Contract Specialist	757-852-3436 Heather.r.salisbury@uscg.mil
Eric Hanson	FDCC/Construction Project Manager	
John Regan	FDCC/Mechanical Engineer	
Lem Watts	FDCC/Architect	
CDR Matthew Rymer	TRACEN Yorktown/Facilities Engineering	
LT Kent Hammack	TRACEN Yorktown/ Facilities Engineering	
ENG3 Jon Phillips	TRACEN Yorktown/TEW	
Paul Schaefer	TRACEN Yorktown /TEW	
Richard Vobornik	TRACEN Yorktown/TEW	





