

**ATTACHMENT J-1604000-09
PERFORMANCE WORK STATEMENT
GRANULATED ACTIVATED CARBON (GAC) SERVICES
NAVAL FACILITIES ENGINEERING COMMAND, SOUTHWEST**

SECTION 1 - GENERAL INFORMATION

This scope of work for this Task Order is to provide granulated activated carbon (GAC) services including in the operation and maintenance of pollution control devices at the Industrial and Oily Waste (IW/OW) treatment plants at Naval Facilities Engineering Command, Southwest (NAVFAC SW) facilities in the San Diego geographical area. All references identified in the basic contract remain in full effect.

SECTION 2 - BACKGROUND

The US Navy fleet and shore activities generate industrial and oily wastes. NAVFACSW operates several IW/OW treatment plants in the San Diego area to treat the wastes. Wastes that are treated are HW under Federal and/or California law and are pervasively regulated and permitted by numerous agencies. In order to meet regulatory requirements, several pollution control devices operate at the largest plant, located at Naval Base Coronado (NBC).

Among the pollution control devices are numerous GAC adsorption air pollution control devices that, as GAC becomes spent and unsuitable for continued use, must be serviced at irregular but frequent intervals on an ongoing basis. IW/OW plants also use wet GAC adsorption devices and mixed media filter beds through which treated water is discharged, thereby maintaining compliance with sewer discharge limits. Those devices are serviced at less frequent intervals but, when serviced, are much larger in scope than routine service of air pollution control devices. All mixed media filters and wet GAC adsorption devices are typically serviced at approximately the same time on an infrequent basis, but as a matter of routine, no more frequently than once every five years during an engineering inspection and certification cycle.

SECTION 3 - PERFORMANCE OBJECTIVES

The main objectives of this Task Order are to:

- (1) Furnish a crew to remove spent GAC from pollution control devices from various IW/OW treatment facility located at Naval Base Coronado (NBC).
- (2) Provide and install fresh GAC of various types into pollution control devices, depending on devices being serviced.
- (3) Provide transportation of both fresh GAC and spent GAC to regeneration facilities.

(4) Remove spent GAC from site on same date of service for regeneration at an authorized GAC regeneration facility. Carbon or mixed media that cannot be regenerated shall be disposed of at a site authorized to accept the waste.

(5) Provide, upon request, analyses of spent GAC.

(6) Re-profile spent GAC at intervals of no greater than two years, or if significant process changes occur.

SECTION 4 - WORK ELEMENTS/SCOPE OF WORK

Work Element 1 - GAC Service - The Contractor shall provide GAC service to pollution control devices at the IW/OW treatment plants located at Naval Base Coronado (NBC). See Chart below for locations. GAC service includes: replacement of spent GAC of various types with fresh GAC; labor and equipment necessary to affect replacement; delivery of fresh GAC and transport of spent GAC offsite on the same date of service for regeneration at a facility that specializes in GAC reactivation; and analyses as requested of spent GAC

a. **70-Hour Units** - Change active carbon units on their 70-hour mark from their last change out and every 70 hours, thereafter. Each unit is changed out with approximately 400 pounds of VOC absorbent carbon. 70-Hour Units are at the following locations:

- 1) Pump Station 2
- 2) Pump Station 4
- 3) Pump Station 7
- 4) Pump Station 9
- 5) Pump Station 13
- 6) Receiving Basin
- 7) Load Equalization Tank 201
- 8) Load Equalization Tank 202
- 9) Load Equalization Tank 203
- 10) Load Equalization Tank 204

b. **90-Day Units** - Change out passive carbon units every 90 days starting on October 2011, and every 90 days thereafter, or earlier if the 90-days change out date falls on a weekend or holiday. Each unit is changed out with approximately 400 pounds of VOC absorbent carbon. 90-Day Units are at the following locations:

- 1) Receiving Basin
- 2) Load Equalization Tank 201
- 3) Load Equalization Tank 202
- 4) Load Equalization Tank 203
- 5) Load Equalization Tank 204

c. **365-Day Units** - Change out passive units every 365 days starting June 2012, and every 265 days thereafter, or earlier if the 265 days change out date falls on a weekend or holiday. Each unit is changed out with approximately 400 pounds of VOC absorbent carbon. 365-Day Units are at the following locations:

- 1) Pump Station 4
- 2) Pump Station 7
- 3) Pump Station 13
- 4) Recovered Oil Tank 301
- 5) Recovered Oil Tank 304

d. **5-Year Units** - Change out passive units every 5 years (October 2014). Each unit is changed out with approximately 400 pounds of VOC absorbent carbon. 5-Year Units are at the following locations:

- 1) Pump Station 2
- 2) Pump Station 9
- 3) Recovered Oil Tank 302
- 4) Recovered Oil Tank 303
- 5) Sludge Tank 402
- 6) Sludge Tank 403
- 7) Draining Basin
- 8) Recovered Oil Tanks 901-905

Work Element 2 - Removal of Spent GAC - The Contractor shall furnish a qualified crew to remove spent GAC from pollution control devices. Units to be serviced may be added or subtracted during the course of this contract.

Work Element 3 - Provide and Install Fresh GAC - The Contractor shall provide and install fresh GAC of various types into pollution control devices, depending on devices being serviced. The Contractor shall furnish a qualified crew to install fresh GAC.

Work Element 4 - Remove Spent GAC to Treatment Facility - The Contractor shall remove the spent GAC from the Navy site on same date of service for recycling at a fully permitted HW treatment facility specializing in GAC recycling/reactivation/regeneration. Among other GAC types, spent GAC includes a caustic-impregnated coal-based type. Facilities accepting spent GAC must be able to accept such GAC type for recycling/reactivation. Carbon for pressure vessels will be left on-site in plant roll-off bins while awaiting the profiling and analytical results. If the spent carbon can be regenerated, it will be taken off site in the roll-off bins to the regeneration facility. If the spent carbon cannot be reused, it will either go to a landfill or will stay onsite in the roll-off bins for disposal through the DRMO contract, via the Navy's Job Order Number (if deemed hazardous waste).

Work Element 5 - Provide Analyses of Spent GAC - The Contractor shall provide an analysis of the spent GAC removed. Carbon will be profile every two years for each carbon unit type. Analytical results will be provided to the Navy and be used for final disposition of the carbon. The analysis shall be performed by an accredited laboratory. Contractor shall provide analysis for 12 samples per year.

Work Element 6 – Re-Profile Spent GAC – At intervals of no greater than two years, or if significant process changes occur, the Contractor shall re-profile spent GAC. Mixed media and the wet carbon will be profiled after it is removed from the vessels and final disposition will be determined by the profiling process.

SECTION 5 - EQUIPMENT

Currently, 42 units are serviced under this Task Order, as follows:

a. **Naval Base San Diego (NBSD)**: Service 10 active and 18 passive Granulated Activated Carbon (GAC) units, each containing approximately 350 to 400 lbs of potassium hydroxide-impregnated coal-based GAC. The current product used is US Filter VOCarb UOCH-KP KOH 4mm. Service intervals vary, depending on individual unit, as follows:

Unit Type	Change Out Requirements	Per Year
10 Active units	Typically fewer than 10 change outs per year (change every 70 operating hours determined by fan hour meters)	<10
5 Passive units	Approximately 4 change outs per year (change every 90 days)	20
5 Passive units	Approximately 1 change out per year (change once per 365 days)	5
8 Passive units	Change out once every 5 years	

Change out intervals for the 18 passive GAC units may be shorter if equipment failure or other non-routine events necessitate GAC change out in one or more units on an accelerated schedule.

b. **Naval Base Coronado (NBC)**: Service 14 total units; including 9 vapor GAC units, 4 wet GAC units, and 3 mixed media filters.

9 vapor GAC units: Vapor GAC units BTF-1 & BTF-2 each contain approximately 1,500 lbs of GAC. The current product used is US Filter VOCarb VCP60 4mm. The remaining 7 GAC units are vapor units each containing approximately 350 to 400 lbs of potassium hydroxide-impregnated GAC. The current product used is US Filter VOCarb UOCH-KP KOH 4mm. The BTF units are serviced at irregular intervals, but at least a few times per year, based on readings of capture efficiency. The other vapor units serve as backup to the BTF units and are changed out every 168 operating hours as determined by fan hour meters.

4 wet GAC units: The 4 wet GAC units each contain approximately 20,000 lbs of aqua-reactivated GAC. Service interval is determined by a regulatory reinspection requirement of at least once every 5 years. Intervals may be shorter if equipment failure or other non-routine events necessitate change out of GAC in one or more of the wet GAC units on an accelerated schedule. Intervals may be longer if inspections can be accomplished by external methods.

3 mixed media filters: Each of the 3 mixed media filters contains 5 layers, consisting of approximately 2,000 lbs of 3/4 x 3/8 gravel, 1,500 lbs of 1/4 x 1/8 gravel, 1,100 lbs of #12 sand, 8,000 lbs of #30 sand, and 3,650 lb of anthracite. Service intervals for each of the 3 mixed media filters are determined by a regulatory reinspection requirement of at least once every 5 years. Intervals may be shorter if equipment failure or other non-routine events necessitate change out of media in one or more of the mixed media filters on an accelerated schedule. Intervals may be longer if inspections can be accomplished by external methods.

Unit Type	Change Out Requirements	Per Year
2 BTF Vapor units	Approximately 6 change outs per year	12
7 Small Vapor units	Typically fewer than 1 change out per year	<7
4 Wet units	Change out once every 5 years	
3 Mixed units	Change out once every 5 years	

SECTION 6 - EMPLOYEE REQUIREMENTS

The Contractor shall provide experienced, qualified, and capable personnel to perform the work in this contract. Personnel shall be fully knowledgeable of all safety and environmental requirements associated with the work they perform. Personnel required to perform under this contract shall meet HW operations training standards and all endorsements and/or medical certificates required to transport GAC materials, including spent GAC.

GAC service crews will be entering and working in permitted HW treatment, storage, and disposal facilities. In addition, personnel required to perform under this contract will be conducting operations aboard US military installations and must comply with all security policies and instructions that may be issued by security officials.

SECTION 7 - SPECIAL CONDITIONS

- a) All communications with parties outside of the Navy shall be coordinated through the Contract Specialist and RPM.
- b) Public Affairs - The contractor shall not disclose any information or data resulting from actions in this contract to the news media or public. The contractor shall refer all press or public contacts to the NTR. The contractor may not distribute reports or data to any source, unless specifically authorized by the Public Affairs Officer in accordance with NAVFAC Instruction 5720.10A. (Reference: NAVFAC 5720/6 Form - Publication Security Review and Clearance).
- c) Any oral directives, instructions, explanations, commitments and/or acceptances given by any government employee to the contractor or his personnel, shall not be construed by the contractor as a change in scope to this Task Order. Any change in scope of work must be issued to the contractor, in writing, by the Navy's Contracting Officer to be binding on the government.

- d) The contractor's project manager shall notify the NTR by phone, when each fieldwork task is about to commence.
- e) The contractor shall provide copies of all correspondence to the NTR, and CS.
- f) The contractor shall not incorporate its Navy review comment response(s) into any report unless the Navy has indicated, in writing, that the contractor's response appropriately addresses the Navy's review comments.
- g) The contract number shown in the heading of this scope of work is the number assigned to the contract for this work, and shall be used on all reports and correspondence relative to this contract.
- h) Execute cleanup activities during progress of the work, at the completion of the work, and in accordance with the basic contract.
- i) The contractor shall provide environmental protective measures to control pollution that develops during field work.
- j) The contractor shall be responsible for cleanliness and orderliness of the area used and for the security of any material or equipment stored on site during the duration of field work.

SECTION 9 – REFERENCES

The following references apply to work performed under this Task Order:

- a) 40 CFR 239 - 299 Resource Conservation and Recovery Act (RCRA)
- b) 49 CFR 170 - 180 Research and Special Programs Administration, DoT
- c) 29 CFR 1910 - General Industry Safety Orders
- d) PL 91-596 - Occupational Safety and Health Act
- e) CA Health & Safety Code Chapter 6.5 - Hazardous Waste Control
- f) CCR Title 22 Div 4.5 - California Hazardous Waste Regulations
- g) EM 385-1-1 – Safety and Health Requirements Manual, USACOE, 15 Sep 08 (and as subsequently amended)

SECTION 10 - POINTS-OF-CONTACT

Naval Base Coronado (NBC) Point of Contact (POC):

Name: To be provided after award .
Address:
Phone:

Naval Base San Diego (NBSD) Point of Contact (POC):

Name: To be provided after award
 Address:
 Phone:

Contract Specialist (CS):

Name: Penny Brown
 Address: Naval Facilities Engineering Command Southwest
 1220 Pacific Highway, San Diego, California 92132-5190
 Phone: (619) 532-3859 (Commercial)

Navy Technical Representatives (NTR):

Name: Sarah Lugue
 Address: Naval Facilities Engineering Command Southwest
 1220 Pacific Highway, San Diego, California 92132-5190
 Phone: (619) 532-4651 (Commercial)
 (619) 571-4175 (Cell)

SECTION 11 - DELIVERABLE SCHEDULE MATRIX

The contractor shall perform tasks and/or prepare deliverables based upon the following schedule:

Deliverable	Navy Copies	Agency/ Public Copies	Due Date
Certificate of Re-Activation	1	1	Within 30 days after removal of spent GAC.
Laboratory Analysis Report	1	1	Within 30 days after sampling of spent GAC.

All deliverables shall be provided in electronic format to be specified by the NTR.

SECTION 12 – PERFORMANCE ASSESSMENT MEASURES

Task	Performance Standard	Acceptable Quality Level	Assessment Method	Performance Payment and Incentive
Work Element 1 - Granulated Activated Carbon Services	Services are performed in a timely manner and in compliance with Federal, state and local statutes and regulations, and with DoD policies, instructions and guidance.	100% Navy acceptance	Navy acceptance by KO, NTR, and RPM	See NFAS 5252.246-9303, 5252.246-9304, and 5252.246-9305.
Work Element 2 - Removal of Spent GAC	Timeliness of on-site response and removing spent GAC from devices and the site with minimum disruption to plant operations; conducting operations in compliance with applicable regulatory requirements.	100% Navy acceptance	Navy acceptance by KO, NTR, and RPM	See NFAS 5252.246-9303, 5252.246-9304, and 5252.246-9305.
Work Element 3 - Provide and Install Fresh GAC	Timeliness of on-site response and providing the correct variety of GAC for the device being serviced with minimum disruption to plant operations; conducting operations in compliance with applicable regulatory requirements.	100% Navy and regulatory agency acceptance	Navy acceptance by KO, NTR, RPM, and Regulatory Agencies	See NFAS 5252.246-9303, 5252.246-9304, and 5252.246-9305.
Work Element 4 - Remove Spent GAC to Treatment Facility	Timeliness of transportation services to ensure the installation complies with Federal, state and local statutes and regulations, and with DoD policies, instructions and guidance. The Contractor shall provide a Certificate of Reactivation in a timely manner (within 30 days from the removal of spent GAC).	100% Navy acceptance	Navy acceptance by KO, NTR, RPM, and Regulatory Agencies	See NFAS 5252.246-9303, 5252.246-9304, and 5252.246-9305.
Work Element 5 - Provide Analyses of Spent GAC	The Contractor shall comply with applicable federal and state regulations and provide an analysis report in a timely manner (within 30 days of sampling).	100% Navy acceptance	Navy acceptance by KO, NTR, RPM, and Regulatory Agencies	See NFAS 5252.246-9303, 5252.246-9304, and 5252.246-9305.

Work Element 6 – Re-Profile Spent GAC	At intervals of no greater than two years, or if significant process changes occur, the Contractor shall re-profile spent GAC.	100% Navy and regeneration facility acceptance	Navy acceptance by KO, NTR, and Regeneration Facilities	See NFAS 5252.246-9303, 5252.246-9304, and 5252.246-9305.
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The following areas will be considered during performance assessment reviews:

Schedule – Measured by project progress and deliverables meeting, finishing before, or falling behind scheduled dates.

Quality – Degree to which project work complies with RCRA, Title 22, permits, and Navy policies; is accepted by affected parties and regulatory agencies; is based on sound engineering and operating practices; and makes acceptable progress towards overall goal of regulatory compliance, economical operation, and timely maintenance and repair. Measured by customer satisfaction / complaints, compliance with applicable requirements, and Navy and/or regulatory field observations.

Business Relations – Degree to which the client and other affected parties are satisfied with the overall execution. Evaluated areas include project communication; IW/OW ability to provide service to affected customers; effects on activities of affected parties; contractor’s key personnel; and coordination of subcontractors. Measured by client input, other Navy POC input, NTR observations, and NTR evaluation of client satisfaction input.

Cost – Proposed costs are reasonable, negotiated cost is not exceeded, required modification costs are reasonable, and Contractor decisions and recommendations made result in cost efficient progress towards overall goals. Measured by Government Estimates, client input, contractor invoices.

Safety – Work is performed in a safe manner using the principles of Operational Risk Management (ORM). Measured by the number of safety incidents, evaluation of health and safety plans or SOPs as applicable, and Navy and/or regulator observations.