

ORDER FOR SUPPLIES OR SERVICES

1. CONTRACT/PURCH. ORDER/ AGREEMENT NO. N00033-14-D-7509	2. DELIVERY ORDER/ CALL NO. 0007	3. DATE OF ORDER/ CALL (YYYYMMDD) 2014 Apr 28	4. REQ./ PURCH. REQUEST NO. N4044614RCN7167	5. PRIORITY
---	-------------------------------------	--	--	-------------

6. ISSUED BY MILITARY SEALIFT COMMAND, SSU GUAM MSC, SSU GUAM PSC 455, BOX 198 APO AP 96540-2600	CODE N40446	7. ADMINISTERED BY (if other than 6) SEE ITEM 6	CODE
--	----------------	---	------

8. DELIVERY FOB
 DESTINATION
 OTHER
 (See Schedule if other)

9. CONTRACTOR CABRAS MARINE CORPORATION NAME JOSEPH CRUZ AND 1026 CABRAS HIGHWAY, SUITE 114 ADDRESS PITI GU 96915-5610	CODE OM9K3	FACILITY	10. DELIVER TO FOB POINT BY (Date) (YYYYMMDD) SEE SCHEDULE	11. MARK IF BUSINESS <input type="checkbox"/> SMALL <input type="checkbox"/> SMALL DISADVANTAGED <input type="checkbox"/> WOMEN-OWNED
--	---------------	----------	---	--

12. DISCOUNT TERMS

13. MAIL INVOICES TO THE ADDRESS IN BLOCK
See Item 15

14. SHIP TO SEE SCHEDULE	CODE	15. PAYMENT WILL BE MADE BY SEE SCHEDULE	CODE	MARK ALL PACKAGES AND PAPERS WITH IDENTIFICATION NUMBERS IN BLOCKS 1 AND 2.
--	------	--	------	--

16. TYPE OF ORDER	DELIVERY/ CALL	<input checked="" type="checkbox"/>	This delivery order/call is issued on another Government agency or in accordance with and subject to terms and conditions of above numbered contract.
	PURCHASE	<input type="checkbox"/>	Reference your quote dated Furnish the following on terms specified herein. REF:

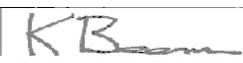
ACCEPTANCE. THE CONTRACTOR HEREBY ACCEPTS THE OFFER REPRESENTED BY THE NUMBERED PURCHASE ORDER AS IT MAY PREVIOUSLY HAVE BEEN OR IS NOW MODIFIED, SUBJECT TO ALL OF THE TERMS AND CONDITIONS SET FORTH, AND AGREES TO PERFORM THE SAME.

NAME OF CONTRACTOR	SIGNATURE	TYPED NAME AND TITLE	DATE SIGNED (YYYYMMDD)
--------------------	-----------	----------------------	------------------------

If this box is marked, supplier must sign Acceptance and return the following number of copies:

17. ACCOUNTING AND APPROPRIATION DATA/ LOCAL USE
See Schedule

18. ITEM NO.	19. SCHEDULE OF SUPPLIES/ SERVICES	20. QUANTITY ORDERED/ ACCEPTED*	21. UNIT	22. UNIT PRICE	23. AMOUNT
SEE SCHEDULE					

* If quantity accepted by the Government is same as quantity ordered, indicate by X. If different, enter actual quantity accepted below quantity ordered and encircle.	24. UNITED STATES OF AMERICA TEL: (b) (6) EMAIL: (b) (6) BY: Keith Beem	 CONTRACTING / ORDERING OFFICER	25. TOTAL \$26,419.85	26. DIFFERENCES
--	--	--	--------------------------	-----------------

27a. QUANTITY IN COLUMN 20 HAS BEEN
 INSPECTED RECEIVED ACCEPTED, AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED

b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE	c. DATE (YYYYMMDD)	d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE
--	--------------------	---

e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE	28. SHIP NO.	29. DO VOUCHER NO.	30. INITIALS
--	--------------	--------------------	--------------

f. TELEPHONE NUMBER	g. E-MAIL ADDRESS	<input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	32. PAID BY	33. AMOUNT VERIFIED CORRECT FOR
---------------------	-------------------	--	-------------	---------------------------------

36. I certify this account is correct and proper for payment.

a. DATE (YYYYMMDD)	b. SIGNATURE AND TITLE OF CERTIFYING OFFICER
--------------------	--

31. PAYMENT	<input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	34. CHECK NUMBER
		35. BILL OF LADING NO.

Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	SO2 Detection Sensor Install FFP SO2 sensor installation on the USNS Drew. See attached statement of work.	1	Each	\$26,419.85	\$26,419.85
	FOB: Destination PURCHASE REQUEST NUMBER: N4044614RCN7167				
				NET AMT	\$26,419.85
	ACRN AA CIN: N4044614RCN71670001				\$26,419.85

Section C - Descriptions and Specifications

STATEMENT OF WORK

1.0 ABSTRACT

- 1.1 This item describes installation of two new independent SO2 gas detection systems serving Cargo Hold Nr 2 and affected spaces. The SO2 systems are comprised of two independent SO2 controllers, sensors, and components, one side dedicated for the port side and one for the starboard side.

2.0 REFERENCES

- 2.1 MSC DWG 300-8494555, SO2 Gas Detection System Installation
 2.2 S9436-A8-MMC-010, Technical Manual for Gas Detector System Sulfur Dioxide (SO2) Model 1410-00
 2.3 NAVSEA DWG SRD 512 748 8759 HVAC Diagram Cargo Hold
 2.4 Photo Set Nr 1, "SO2 Sensor System Install"
 2.5 Photo Set Nr 2, "SO2 Sensor System Install"
 2.6 MSC SMS P078501 Safety, Stowing and Handling Procedures for AMNS-SF
 2.7 General Technical Requirements (GTRs)

3.0 ITEM LOCATION/DESCRIPTION/QUANTITY

3.1 Location

- 3.1.1 Cargo Hold No.2, 2nd Deck, 2-49-0
 3.1.2 Stairtower 5-57-0, 2nd Deck
 3.1.3 Stairtower 5-57-0, Main Deck
 3.1.4. Stairtower 5-57-0, 3rd Deck
 3.1.5 Main Deck,1-48-3 Starboard Plenum
 3.1.6 Main Deck,1-49-2 Port Plenum
 3.1.7 Main Deck,1-52-1, Cargo Handling area
 3.1.8 Main Deck,1-52-2, Cargo Handling area

3.2 Quantity

- 3.2.1 Government Furnished Material: Two SO2 systems per para 4.1 GFM list
 3.2.2 Contractor Furnished Material

Item	Description: Contractor Furnished Material	Quantity
1	Nameplates (Metal Photo) 1/32" Thick Satin Finish, Engraved SEN Aluminum IAW MIL-DTL-15024F & Ref Dwg 2.1 Table 34-F	Thirty (30) Nameplates per Ref Drawing 2.1 Table 34-F
Item	Description: Contractor Furnished Material	Quantity

2	Nameplates (Metal Photo) 1/32" Thick Satin Finish, Engraved SEN Aluminum IAW MIL-DTL-15024F & Ref 2.6 using Ref 2.1 Figure 34-A Nameplate Design, Font & Size	Fifty-six (56) Nameplates: 7 Each per Ref 2.6 SMS Safety Procedures Warnings & Notes Placards for each of 8 locations
3	Steel Plate 2mm (.075) 14 Ga 36" x 36" A653 Galvanized Steel Plate	6 Each Plates
4	2" A-60 Class hull board insulation, lagging and paste	As Required for install per references & bidder ship check
5	ABS Approved Fire Stop (for Cable Penetrations: Provide Port Engineer with MSDS & ABS Type Approval documentation)	As Required for install per references and bidder ship check

4.0 GOVERNMENT FURNISHED MATERIAL/SERVICES:

4.1 Government Furnished Material (GFM):

Item No	Quantity Req'd per System	Total Quantity	Description Government Furnished Material	NSN / Part Number
1	12 Each	24 Each	Packing, Preformed, TY 1, Size 8	MP-BH-B1
2	20 Each	40 Each	Nylon Tube, No. 2, Straight	M19622/1-002
3	1 System with 4 Gas Sensor & Detector Heads	2 Systems	Sulfur Dioxide Gas Detection System, (inclusive of Gas Sensors, Detector Head, Total 8 each) Mfr Sierra Monitor	NSN 6665-01-426-0208 P/N N-18005
4	3 Each	6 Each	Bell, 3" Gong, 115VAC, Brass, SYM 2622	NSN 6350-00-295-2682 IC/B1S4
5	3 Each	6 Each	Switch, Rotary Encl Type 1SR3A4 3PST, 10A, 125V, SYM 804.1	NSN 5930-00-296-5290
6	4 Each	8 Each	Gas Sensors, Detector Head	N-18007 (Provided with Item 3)
7	1 Each	2 Each	Buzzer, 115V, 60Hz, IC/Z1S4, Sym 2623	NSN 6350-00-295-2847
8	4 Each	8 Each	Strobe, Red Dbl, Flash 120 VAC, Mfr Target Tech or equal	Model 651
9	1 Each	2 Each	Strobe, Amber Dbl, Flash 120 VAC, Mfr Target Tech or equal	Model 651
10	15 Each	30 Each	Nameplate, (Metal-Photo), 1/32" Thick Satin Finish, MIL-DTL-15024F, SEN AL	NSN 01-333-9437
Item No	Quantity Req'd per System	Total Quantity	Description Government Furnished Material	NSN / Part Number
11	50 Each	100 Each	Solvent Wipe, Mfr Enfasco	P/N CB911

12	½ Roll	1 Roll	Tape, Double Sided Adhesive, ½"W x 1300"L, Synth Rubber, 3M 4262 or equal	7510-01-026-1561
13	1 Each	3 Each	Connection Box, 4 Term 12 Wire, MIL0-C-24558/18, Sym 400.2	5940-00-231-0831
14	12 Each	24 Each	Swage Tube, Deck, Size B, Steel	M2435/17-62
15	1800 Cont linear feet	3600 Cont linear ft	Cable, LSDSGU-4, MIL-C-24643/15	NSN 6145-01-202-2795
16	16 Each	33 Each	Packing, Size 2D,	NSN M19622/17-0004
17	1000 Cont linear feet	2000 Cont linear ft	Cable, LS2SJ-16, MIL-C-24643/43	NSN 6145-01-202-7746
18	1000 Cont linear feet	2000 Cont linear ft	Cable, LSTTSU-1 1/2, MIL-C-24643/23	NSN 6145-01-202-9528
19	12 Each	24 Each	Swage Tube, Deck, Size A, Steel	-
20	1 Each	2 Each	Connector, MS3406DJ15A7S	NSN 5935-01-072-2220
21	2 Each	4 Each	Connector, MS3406DJ15A9P	NSN 5935-01-458-3549
22	9 Each	18 Each	Connector, MS3406DJ15A7P	NSN 5935-01-076-5715
23	100 Each	200 Each	"Click Bond" Adhesive Bonded Fastener System, SST Stud 3/8"-16 x 1-1/2"lg, Fixture Mfr Enfasco	CB3200CRM616-24P
24	7+ Each	15 Each	"Click Bond" Adhesive Cartridge, 50ml, Mfr Enfasco	CB420-50
25	Shared	1 Each	Manual Adhesive Dispenser, Mfr Enfasco	CB100-81
26	Shared	1 Each	CB Tester w/Removal Tool, Mfr Enfasco	FE-TESTER-SP
27	10 Each	20 Each	Static Mixing Tip, Mfr Enfasco	CB106

4.2 Government Furnished Services (GFS):

4.2.1 MSC will provide the services of a certified Click Bond Rep to provide Technical support and instruct contractors and ship's crew on how to properly install the Click Bond Fastener.

4.2.2 MSC will provide the services of a certified Test Engineer to verify installation, commission, and certify the SO2 detection system.

4.2.3 The Chief Engineer and MSC Representative will be available to provide technical guidance during the installation.

5.0 NOTES:

- 5.1 The contractor shall perform ship check to retrieve accurate measurements and information before conducting work.
 - 5.2 Materials not listed as Government Furnished (GFM) shall be furnished by the Contractor.
 - 5.3 The Contractor shall provide all labor and material required to accomplish this work item including but not limited to staging, space certification, contamination containment, full penetration welds, fire watches, removal and reinstallation of all interferences including insulation in way of repairs to effect a complete and finished end result.
 - 5.4 Minor deviations from the drawings are authorized with prior approval of the Port Engineer and Chief Engineer if appearance, function and strength of the ship and system are not impaired.
 - 5.5 Submit Request for Deviation (RFD) to the MSC Port Engineer for approval for any areas that appearance, function and strength are impaired.
- 6.0 QUALITY ASSURANCE REQUIREMENTS:
- 6.1 All work and testing shall be in accordance with the latest SOLAS Regulations, ABS Rules for Building and Classing Steel Vessels, GTRs 7, 22, 28 and 29, IEEE-STD-45, USCG, and to the satisfaction of and in the presence of the GFS Click Bond Rep, GFS Test Engineer, the ABS Surveyor, Chief Engineer, Cargo Mate and Port Engineer.
 - 6.2 All welding requirements shall be accomplished by certified welders and meet ABS and USCG requirements. All welders shall be certified to perform the type of welding required and documentation of such shall be current. Fire watches shall be posted by the Contractor during hot work.
- 7.0 STATEMENT OF WORK REQUIRED:
- 7.1 In Accordance with latest edition of SOLAS Regulations, USCG CFRs, ABS Rules for Building and Classing Steel Ships, GTR 7 (Painting), GTR 22 (Insulation and Lagging), GTR 28 (Electrical & Electronic Systems) and GTR 29 (Identifying Markings), IEEE 45, Reference 2.1, and Bidder ship check using Ref 2.4 and 2.5 and recommendations and requirements of the Chief Engineer, Cargo Mate **the Contractor shall install to design form fit and function two (2) new and independent GFM SO2 Gas Detection Systems** inclusive of all electrical cable runs and connections, component/fixtures mounts and components/fixtures serving and located in Cargo Hold No.2 (2-49-0) 2nd Deck Port and Starboard sides; Stairtower 5-57-0 3rd Deck, 2nd Deck and Main Deck; Main Deck E210

Port 1-49-2 and E211 Starboard 1-48-3 Ventilation Plenums; and Main Deck Cargo Handling Areas Port and Starboard sides 1-52-1 and 1-52-2.

7.1.1 **The Contractor shall perform a joint survey** with the Chief Engineer and Cargo Mate using Ref 2.1 “Installation Notes” and “Circuit SO2 Block Wiring Diagram 29-A”. Define the cable run routes using existing cableways, bulkhead and deck penetrations and mark up of the exact locations and clear height off the deck for two independent SO2 gas detection system’s components and mounts, control panels, fuse boxes, strobe lights, bells, buzzers, connection boxes, switches and sensors.

7.1.2 **The Contractor shall fabricate** as required and per ship check requirements all **custom shaped steel L-Brackets** to facilitate mounting of the GFM strobe lights **and custom shaped steel plate mounts** to facilitate mounting of the other GFM SO2 gas detection system components listed in para 4.1 and as shown in reference 2.1 using Ref 2.1 “Installation Notes”. **A total of thirty-seven (37) mounts shall be dealt with** for two independent SO2 gas detection systems set of components/fixtures, one for the Portside and one for the Starboard side serving Nr 2 Cargo Hold, 2nd Deck shall be dealt with: (control panels, fuse boxes, strobe lights, bells, buzzers, connection boxes, switches and sensors).

NOTE 1: Any unforeseen hot work requirements in way of this installation will be dealt with by CFR and RFP.

A. **Nr 2 Cargo Hold, 2nd Deck:** Install SO2 sensors, strobe lights, rotary switches and buzzers in Cargo hold No.2, 2nd deck 2-49-0 Port and Starboard sides.

NOTE 2: One SO2 system shall be installed to cover the Portside and the other SO2 system shall be installed to cover the Starboard side.

B. **Stair tower 5-57-0, 2nd deck, aft bulkhead:** Install new SO2 control panels and connection boxes in as shown in Ref 2.1.

NOTE 3: The SO2 systems and components for each side of Cargo hold No.2 are independent units. The Contractor shall use Click-Bond to mount the control panels. Contractor shall be required to provide steel plate for mounting connection boxes. The Chief Engineer and MSC Representative will determine actual location of the control panels and connection boxes.

- C. **Stair tower 5-49-0 main deck level outboard port and starboard sides:** Contractor shall install new strobe lights, bells and rotary switches at stair tower 5-49-0 main deck level outboard port and starboard sides as shown in reference 2.1.

NOTE 4: The SO2 systems and components for the Port and the Starboard sides of Cargo hold No.2 are independent units/systems.

- D. **Main Deck Cargo Handling Areas, centerline, between elevators No.3 and No.4:** As shown on reference 2.1. the Contractor shall install new strobe lights for the SO2 systems and components for each cargo hold port and starboard sides are independent units. The Contractor shall be required to manufacture mounting plates for mounting of the strobes. Dimensions will be determined on the deck plate. The Chief Engineer and MSC Representative will determine actual location of the equipment.

- E. **Port and Starboard Plenums, MJD 1-48-3 and MJD 1-49-2,** dedicated for the exhaust fans for Cargo hold No.2, 2nd deck: As shown on reference 2.1. the Contractor shall install new strobe lights, bells and rotary switches outside the Note that the SO2 systems and components are independent for port and starboard units. The contractor may be required to manufacture mounting plate for mounting of the switches. Dimensions will be determined on the deck plate. The Chief Engineer and MSC Representative will determine actual location of the equipment.

- 7.1.3 **The Contractor shall remove in way as interference all insulation and paint, prepare** all the SO2 system component's/fixture's mounting surfaces, mounts and components **using GFS "Click Bond" tech rep's process, requirements** and using Ref 2.1 "Installation Notes" install the component mounts.

- A. Install "Click Bond Mountings", foundations, steel plate mounts, supports & "L" brackets to mount control panels, use boxes, strobe lights, bells, buzzers, connection boxes and switches in the specific locations, placement and height off the deck with approval of the Chief Engineer, Cargo Mate and Port Engineer.

NOTE 5: The Military Sealift Command furnished (GFS) "Click Bond" Representative shall provide instruction to the Contractor and Ships Force on the proper use and application of the Click Bond product.

B. **The Contractor shall provide and install all new insulation, lagging and sealer** in way of all new and disturbed surfaces for this installation in accordance with GTR 7 to match existing per original when new to the satisfaction of the MSC Port Engineer.

7.1.4 **The Contractor shall pull, run and install GFM cables** using existing cableways and bulkhead and deck cable penetrations using Ref 2.1 “Installation Notes” and “Circuit SO2 Block Wiring Diagram 29-A” to provide two independent SO2 gas detection systems.

A. LSDSGU-4 cable runs:

- (1) From Ship’s Power Panels to SO2 Control Units
- (2) From SO2 Control Units to Connection Boxes
- (3) From SO2 Control Units to Alarm Lights, Buzzers, Rotary Switches & Bells

B. LS2SJ-16 cable runs: From SO2 Control Units to SO2 Sensors

C. LSTTSU-1 1/2: cable run: From SO2 Control Units to Remote Automation

D. **Using Contractor furnished SS anti-chaffing banding material** secure in place all cable runs.

E. **Using Contractor furnished ABS approved Fire Stop material** install and seal all new and disturbed cable deck and bulkhead penetrations to the satisfaction of the attending ABS Surveyor, Chief Engineer and MSC Port Engineer. Provide the MSC Port Engineer with a copy of the MSDS and the ABS Type Approval Certificate for the Fire Stop.

F. **Using Contractor furnished aluminum cable tags install aluminum cable tags** on all newly installed cable runs using the cable tag naming convention specified in Ref 2.1 and in accordance with GTR 29 requirements.

G. **Take and record insulation resistance and continuity checks of all GFM cables** prior to installation and after installation of each cable run in the presence of the MSCREP. Provide the MSC Port Engineer with a copy of the condition “as found” and “as installed” report.

- 7.1.5 **The Contractor shall provide and install all properly sized wire lugs/nuts and electrically wire up and connect** the two (2) independent SO2 gas detection system's thirty-seven (37) components/fixtures and the Ship's Power panel below using Ref 2.1 "Installation Notes" and "Circuit SO2 Block Wiring Diagram 29-A".
- 7.1.6 **The Contractor shall provide SS steel fasteners/hardware and install and secure** all thirty-seven (37) SO2 gas detection systems components/fixtures onto their respective mounts.
- 7.1.7 **The Contractor shall paint all new and disturbed surfaces** to match surrounding surfaces using GFM paint provided by the Ship.
- 7.1.8 **The Contractor shall assist the GFS independent test engineer** to calibrate, test and commission the two newly installed SO2 gas detection systems using the GFM Calibration Kit provided. For estimating purposes a total of two 8 hour days shall be required.
- A. The Contractor shall correct any SO2 system installation discrepancies and deficiencies found by the MSC Port Engineer, ABS Surveyor, GFS tech reps, Chief Engineer and Cargo Mate that are attributable to poor workmanship.
- 7.1.9 The Contractor shall fabricate and install **Photo Aluminum Nameplates** using Contractor furnished double back tape per GFM Item 12 for the following:
- A. Nameplates for the two SO2 gas detection system's equipment and components listed in Ref 2.1 Table 34-F twenty-two line items in accordance with Detail 37-A, 34-A & 36-C. **A total of thirty (30) nameplates shall be fabricated and installed** using double back tape in locations identified by the Cargo Mate and Chief Engineer.
- B. Warning Placards notated in Ref 2.6, "MSC SMS P078501 Safety, Stowing and Handling Procedures for AMNS-SF". Seven (7) each different and specific Warning Placards for each of the eight (8) locations listed in para 3.1.1 thru 3.1.8. **A total of fifty-six (56) Warning Placards shall be fabricated and installed** using double back tape in locations specified by the Cargo Mate and Chief Engineer requirements.

8.0 GENERAL REQUIREMENTS:

- 8.1.1 Shipcheck: USNS Matthew Perry, Kilo Wharf March 19th, 0830-1130 hours.

Ship's Access Request: Provide MSC N10 and N7 with Full Names & Last 4-digits of SSN for ship check personnel.

8.1.2 Install: USNS Charles Drew, July 8-28, 2014

Section E - Inspection and Acceptance

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0003	Destination	Government	Destination	Government

Section F - Deliveries or Performance

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0003	POP 08-JUL-2014 TO 28-JUL-2014	N/A	N/A FOB: Destination	

Section G - Contract Administration Data

ACCOUNTING AND APPROPRIATION DATA

AA: 97 X 4930 ND2A 000 40446 0 000033 2F0000000000000000

AMOUNT: \$26,419.85

CIN N4044614RCN71670001: \$26,419.85