

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE J	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 0002	3. EFFECTIVE DATE 19-Dec-2017	4. REQUISITION/PURCHASE REQ. NO. W66QKZ71282904		5. PROJECT NO.(If applicable)
6. ISSUED BY USACE PORTLAND DISTRICT 333 SW 1ST AVE PORTLAND OR 97204-3440	CODE W9127N	7. ADMINISTERED BY (If other than item 6) See Item 6		
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		X	9A. AMENDMENT OF SOLICITATION NO. W9127N-18-B-0005	
		X	9B. DATED (SEE ITEM 11) 22-Nov-2017	
			10A. MOD. 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 Offer <input checked="" type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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 <u>1</u> copies 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.				
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.				
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).				
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
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.) Project: Bonneville Generator Cooler Upgrade Amendment-0002 for W9127N18B0005 The purpose of this amendment is to Extend the Bid Due Date and make necessary technical changes to the specifications. 1) Bid Due Date changed from 22-December 2017 to 17-January-2018. Closing time remains unchanged at 1300 hours. 2) Revise Technical Specifications Section 42. See Summary of Changes and Specification Revisions on following pages. No other changes are made or implied. The offeror shall sign block 15A-C of this amendment and return with Bid submission. Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.				
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
		TEL: _____ EMAIL: _____		
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 19-Dec-2017	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The following changes have been made to the Technical Specifications, Division 42 13 19.00 26 – Process Heating, Cooling, and Drying Equipment as summarized below:

- (1) Subpart 2.4.1.b. has been updated: Language modified to “One in-service cooler is available to ship off site for reverse engineering or to inspect on site.”
- (2) Subpart 2.4.1.c. has been updated: Language added “One in-service cooler is available to ship off site for reverse engineering.”
- (3) Subpart 2.4.4.2 has been updated: Title modified to “Main Units 11-18 and Fish Units 1-2”
- (4) Subpart 3.2.a. has been updated: Language modified to “Four existing in-service air coolers, one from Main Units 1-2, 3-10, 11-18, and Fish Units 1-2 will be made available for reverse engineering off site if the contractor chooses.” “The government will provide equipment and personnel to load the coolers onto the Contractor's truck.”
- (5) Subpart 3.2.b. has been updated: Modified language “All coolers must be returned to the project within 30 days of departure in the same condition that the Contractor received them in.”

The updated technical section is hereby attached within this amendment.

SECTION SF 1449 - CONTINUATION SHEET

SOLICITATION/CONTRACT FORM

The required response date/time has changed from 22-Dec-2017 01:00 PM to 17-Jan-2018 01:00 PM.

(End of Summary of Changes)

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2.4 SURFACE AIR COOLERS

2.4.1 Surface Air Coolers General

a. The coolers are straight tube type with headers on either end. Supply new coolers that are identical to the existing coolers except where modified by these specifications. The new coolers must be dimensionally interchangeable with the existing coolers so they can bolt into the existing equipment.

b. Detailed air cooler drawings exist for Main Units 3-10. These coolers have mirrored lower heads, a left and right hand design. This is noted on drawing P-5923384. The Contractor must field verify all dimensions and document any additional measurements or features that are needed for fabrication. One in-service cooler is available to ship off site for reverse engineering or to inspect on site. The other hand cooler will be removed from service for the contractor to inspect on site only.

c. Detailed drawings for Main Units 1-2 are not available. These coolers are of the same family and manufacturer as units 3-10 only differing in size. The contractor must certify that these coolers do not have mirrored heads. The contractor will need to inspect and take all measurements of the Main Units 1-2 coolers in order to properly reverse engineer them. Two coolers will be removed from service for the contractor to onsite. One in-service cooler is available to ship off site for reverse engineering.

d. Detailed drawings for Main Units 11-18 and Fish Units 1-2 are not available. One existing cooler of each family will be made available to the Contractor for the purpose of reverse engineering off site or to inspect on site. The specifics regarding the availability of the cooler for reverse engineering is located in PARAGRAPH: Cooler Availability for Reverse Engineering.

2.4.2 Finned Tubing Main Units 1-10

a. Use copper L-fins that are tension wound to the copper tube. Make fins from copper that meets the requirements of ASTM B152/B152M.

b. Make the inner tubes from copper, per ASTM B111/B111M, UNS C70600. The minimum allowable wall thickness is 0.049". Expand the tube ends into the tube sheets. Do not use belled ends on the tubes as the original tubes have.

2.4.3 Finned Tubing Main Units 11-18 and Fish Units 1-2

a. Use a bimetallic E-fin tube with fins that are continuously extruded. The inner tube must be continuously mechanically bonded to the outer tube so as to totally enclose it, except at the tube ends.

b. Make fins from aluminum that meets the requirements of ASTM B221. Make the inner tubes from copper, per ASTM B111/B111M, UNS C70600. The minimum allowable wall thickness is 0.049". Expand the tube ends into the tube sheets.

2.4.4 Headers and Manifolds

The supply, drain, and vent header connections/flanges will be the same

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type and pattern to match original except as modified herein such that the air coolers will directly connect to all original equipment. All connections/flanges will be of stainless steel UNS 30400. Pipe must be stainless steel per ASTM A312/A312M

2.4.4.1 Main Units 1-10

a. Design new headers and manifolds for Main Units 1-10 using stainless steel, per ASTM A240/A240M, UNS 30400. Provide headers with removable cover plates to allow access to all tubes. All air bleed/vent ports are to be tapped 1/2 inch NPT. Submit drawings of the new design with the shop drawings.

b. Unit 3-10 have mirrored heads so there will be two separate designs for these units. Clearly identify each new cooler as to which design it is for installation purposes.

c. Investigate the head design of Units 1-2 to determine if these heads are also mirrored and proceed accordingly.

2.4.4.2 Main Units 11-18 and Fish Units 1-2

Fabricate headers and manifolds of Main Units 11-18 and Fish Units 1-2 from stainless steel, per ASTM A240/A240M, UNS 30400. Provide headers with removable cover plates to allow access to all tubes. Submit drawings of the new design with the shop drawings.

2.4.5 Tube Sheets

Make tube sheets from naval brass, per ASTM B171/B171M, UNS C46400.

2.4.6 Cooler Frame

Make the cooler frame from hot dip galvanized carbon steel that meets the requirements of ASTM A36/A36M and ASTM A123/A123M.

2.4.7 Gaskets

Provide all gaskets to seal the air cooler assembly. Make gaskets out of neoprene or other synthetic material suitable for the service. Material must have good resistance to Ozone. Provide gaskets that meet the requirements of ASME B16.5 and ASME B16.21. When these standards do not apply due to original equipment having non standard flange patterns provide gaskets that match the original equipment.

2.4.8 Painting

The air coolers for Units 1-10 protrude through the generator housing and are painted to match the top of the generator housing. The work specified in this section includes requirements for preparing and applying coating systems to these air coolers.

2.4.8.1 Paint Contractor Qualification

Certified as SSPC QP 3 for shop application. The Contractor must follow:

- a. SSPC PA 1
- b. SSPC PA 2

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PART 3 EXECUTION

3.1 QUANTITY AND SPARE PARTS

Supply 193 complete air cooler assemblies.

UNITS	NUMBER OF COOLERS
MAIN UNITS 1-2	25
MAIN UNITS 3-10 Left Hand	49
MAIN UNITS 3-10 Right Hand	49
MAIN UNITS 11-18	65
FISH UNITS 1-2	5

Supply one set of spare gaskets for each family of coolers.

3.2 COOLER AVAILABILITY FOR REVERSE ENGINEERING

a. All coolers will be made available for the contractor to reverse engineer on site. Four existing in-service air coolers, one from Main Units 1-2, 3-10, 11-18, and Fish Units 1-2 will be made available for reverse engineering off site if the contractor chooses. The Government will place the coolers in a location that is coordinated in advance with the Contractor. The government will provide equipment and personnel to load the coolers onto the Contractor's truck. It is the Contractor's responsibility to package the cooler for shipping and arrange all shipping to and from Bonneville Dam.

b. The Government and the Contractor will jointly inspect the coolers prior to the Contractor packaging it. Submit an existing cooler condition statement that documents the existing condition of the cooler and the presence of damage. The Contractor is responsible for any damage caused while the air coolers are in their possession. All coolers must be returned to the project within 30 days of departure in the same condition that the Contractor received them in.

3.3 FABRICATION

Fabricate the surface air coolers to the quantity and materials specified in this section.

3.3.1 Welding

Perform welding of pressurized portions of the air cooler per 40 05 13.96 26, WELDING. For all other areas of the air cooler assemblies perform welding per AWS D1.1/D1.1M.

3.3.2 Metal Work

Unless noted otherwise, perform metal work and machining in accordance with the requirements of Section 05 50 03.00 26, METALWORK FABRICATION, MACHINE WORK, AND MISCELLANEOUS PROVISIONS.