



Cultural Center of the Philippines  
SENTRONG PANGKULTURA NG PILIPINAS

**Invitation to Bid for**

**CHEMICAL DE-SCALING OF COOLING COILS OF SIX ( 6 ) UNITS AIR-HANDLING UNITS ( AHUS ) AT CCP MAIN BUILDING.**

**(ITB No. 2019-01-001)**

1. The Cultural Center of the Philippines (CCP), through the Corporate Operating Budget 2018 intends to apply the sum of Four Hundred Eighty Thousand Three Hundred Thirteen Pesos Only (Php480,313.00) being the Approved Budget for the Contract (ABC) to payments under the contract for the "Chemical De-Scaling of Cooling Coils of Six ( 6 ) units Air- Handling units ( AHUS ) at CCP main Building ". Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The Cultural Center of the Philippines now invites bids for "Chemical De-scaling of Cooling Coils of Six ( 6 ) units Air-Handling Units ( AHUS ) at CCP Main Building ". Completion of the delivery is required within thirty (30) calendar days excluding holidays and unworkable days due to disasters, scheduled rehearsals/performances or similar extreme circumstances after the receipt of Notice to Proceed. Bidders should have completed, within five (5) years from the date of submission and receipt of bids, a single contract similar to the Project with at least fifty percent (50%) of the ABC. The description of an eligible bidder is contained in the Bidding Documents, particularly in Section II, Instruction to Bidders.
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary pass/fail criterion as specified in the Implementing Rules and Regulations (I|RR) of Republic Act (RA) 9184, otherwise known as the "Government Procurement Reform Act".

Bidding is restricted to Filipino citizen/sole proprietorships, partnerships, or organization with at least sixty (60) percent interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA 5183 and subject to commonwealth Act 138.

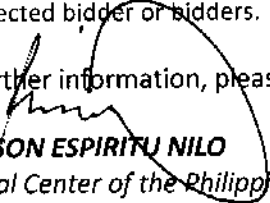
4. Interested bidders may obtain further information from the Cultural Center of the Philippines and inspect the Bidding Documents at the address given below every Tuesdays to Fridays 9:00 AM to 5:00PM.
5. A complete set of Bidding Documents will be available at Procurement Office starting on January 15, 2019 from the address below .

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity not later than the submission of bids.

6. The CCP waives the holding of a Pre-Bid Conference unless bidders opt to hold one which shall be open to all interested parties. Bids must be delivered to the address below on or before January 25, 2019.

Bid opening shall be on January 25, 2019, 3 PM at the Administrative and Finance Building, CCP Complex, Roxas Boulevard, Pasay City. Bids will be opened in the presence of the Bidders' representatives who choose to attend at the address below. Late bids shall not be accepted.

7. The Cultural Center of the Philippines reserves the right to accept or reject any bid, to annul the bidding process, and to reject all bids at any time prior to contract award, without thereby incurring any liability to the affected bidder or bidders.
8. For further information, please refer to:

  
**STEMSON ESPIRITU NILO**  
Cultural Center of the Philippines  
CCP Complex, Roxas Boulevard, Pasay City  
Telephone Nos. (02-832-3666)  
stemsonnilo@ccp.gov.ph

**PROJECT TITLE: CHEMICAL DE-SCALING OF COOLING COILS OF SIX (6) UNITS AIR-HANDLING UNITS (AHUS) AT CCP MAIN BUILDING**

**Location** : CCP Main Building, CCP Complex  
Roxas Blvd., Pasay City

**TERMS OF REFERENCE**

**I. ELIGIBILITY OF CONTRACTOR/BIDDER:**

- A. The CONTRACTOR/BIDDER shall be qualified as per Republic Act No. 9184, other known as "Government Procurement Reform Act".
- B. The CONTRACTOR/BIDDER should have been in legal operation in the field of chemical de-scaling of AHU/FCU cooling coils with a minimum capacity similar to the requirement stated herein for at least five (5) years.
- C. The CONTRACTOR/BIDDER shall be certified and trained to perform Heating Ventilation and Air-Conditioning (HVAC) system cleaning and restoration.
- D. The CONTRACTOR/BIDDER shall have its own specialized expertise, skill and experience to properly clean and restore HVAC system to optimal performance.
- E. The CONTRACTOR/BIDDER shall submit the following mandatory requirements:
  - 1. Original Brochure and Technical Specifications of Chemicals indicating brand, chemical names, formulae, and concentration necessary for the de-scaling.
  - 2. Original or authenticated Material Safety Data Sheet (MSDS) for each chemical or agent to be used.
  - 3. Chemical samples and approved quantity or volume matrix for the actual application per AHU.
  - 4. Valid Site Inspection Certificate from CCP end-user.
  - 5. List of Tools and Equipment to be used for the project.

**II. SCOPE OF THE PROJECT:**

The scope of the project will cover the supply of labor, tools, equipment, chemicals, materials, technical expertise and supervision for the chemical de-scaling and cleaning of the inside cooling coils of six (6) units air-handling units (AHUs) at CCP Main Building. It also includes the cleaning of coil and fins assembly, replacement of valves, and replacement of chemical access valves of selected AHUs necessary to complete the project.

### **III. AIR-HANDLING UNITS LOCATION:**

- A. AHU-CDR – 110TR – Roof Deck, Main Theater;
- B. AHU-BDR – 110TR – Roof Deck, Main Theater;
- C. AHU-ADR – 30TR – Roof Deck, Main Theater;
- D. AHU- BLB – 30TR – Lower Basement Foyer, Little Theater;
- E. AHU-CLB – 70TR – Lower Basement foyer, Little Theater;
- F. AHU- ALB – 40TR – Power Center.

### **IV. QUALITY ASSURANCE AND TECHNICAL SPECIFICATIONS:**

#### **A. Personnel:**

1. The work force shall be trained and certified to insure quality and safety in all aspects of their works at all times. They shall be trained for their respective types of work and are able to handle the equipment, chemicals, and safety gadgets to their maximum functions at all times. Technicians, fabricators and installation crew shall be available to assist anytime the circumstances that may arise.
2. All personnel shall use and wear the proper Personnel Protective Equipment (PPE) as per DOLE Occupational Safety and Health standard, company uniforms and identification.
3. All technicians shall be experienced, friendly and professional, uses proper procedures to ensure effectiveness as well as understanding of facility needs and schedules.

#### **B. Chemical/Solution or Agent for De-scaling:**

1. Provide exact quantity of chemicals or agents in a standard manufacturer's container properly sealed and labeled as per Occupational Safety and Health Administration (OSHA) Standards or DOLE- Occupational Safety and health Standards.
2. All chemicals to be used for de-scaling shall be designed or formulated and intended for HVAC applications, and with citification that is environmentally safe approved by Environmental Protection Agency (EPA).
3. The chemicals use for the cleaning of AHU components especially the cooling coils and fins shall be alkaline base and it should be formulated for the said purpose. It must be a dominant coil renovator and conditioner that rapidly cut through grease, grime and industrial fall out impurities

4. Submit Inspection Report and Certification from the Supplier or manufacturer that chemicals packed in the containers are authentic.

C. Tools and Equipment:

1. Provide the necessary tools and equipment for the de-scaling and cleaning works such as heavy duty mechanical circulating pumps and pressure washers. These tools shall be presented first to the CCP before the implementation of the project.
2. All tools and equipment shall be safe and in good operating condition. It should be cleaned and sanitized before being brought to CCP. List of equipment shall be submitted to CCP, subject for inspection by the CCP Project Engineer/s.

D. Gate Valves and Chemical Valves or Purging Valves Specifications (As per Existing, except for AHU-BDR and AHU-CDR):

1. Two (2) pieces 4" Industrial Gate Valves, Flange Type, including all B.I. fittings (AHU-CLB).
2. Six (6) pieces 3" Industrial Gate Valves, Flange Type, including all B.I. fittings (AHU-BLB, AHU-ALB. And AHU-ADR).
3. Eight (8) pieces Chemical Access Valves or Purging Valves, Brass Ball Valve including all fittings.

All Gate Valves shall include stainless bolts and nuts, it should be non-rising stainless stem, resilient rubber or metal wedge seated gate valve, pressure 125/150lbs, API, ANSI, BS, DIN and JIS standards approved, body cast iron or ductile iron connection way flange, epoxy coated, **BRAND NEW** (Recon and old stock is strictly not acceptable), (Makati Foundry or Philippine Valve are preferable), or equivalent.

**V. SCOPE OF WORK :**

The scope of the project are the following, but not limited to:

- A. Prepare and submit work schedule or Gantt Chart and methodology subject to approval by the CCP prior to commencement of works. Schedule for the de-scaling and cleaning including repairs will be subjected to the availability of the offices/rooms and areas affected.
- B. Submit a list of personnel and tools and equipment to CCP before the commencement of work.
- C. Conduct proper planning and safety orientation for all personnel involved in the project, including CCP authorized personnel and Project Engineer/s.

D. Be in close coordination with the CCP Project Engineer/s during the entire implementation and completion of the project.

E. Mobilization, Delivery and Inspection:

1. Conduct ocular inspection and site evaluation of the access to determine all possible queries and conditions prior to the delivery and commencement of works, with CCP Project Engineer/s present.
2. Mobilize/deliver all materials, equipment and personnel to the site and install safety signages/devices to secure the working area.
3. Properly coordinate with the CCP Project Engineer/s for the inspection of delivery and storage. It shall be made properly to avoid inconvenience to the CCP personnel and the general public. The CCP Project Engineer/s shall designate an area to be used for storage of chemicals.

F. De-scaling Woks:

1. Prepare the system and shut-off the inlet and outlet gate valves of the AHU chilled water pipe and remove all AHU filters.
2. Isolate the cooling coils and fins assembly on-site.
3. Circulate the cleaning/descaling solution into the cooling coils for about 6 hours or as standard by using circulating pumps.
4. Pressures wash the filters and coils and remove the clogs.
5. Rinse the cooling coil and fins assembly with the use of cleaning agents.
6. Hair-comb or uncurl the deformed fins and remove the clogs.
7. Flushing and pressure washing and dis-infect the units.
8. Circulate of neutralizing agent into the cooling coils.
9. Install the filters and valves.
10. If the coil is contaminated with a light dust or dirt not adhered to the fins, blowing low pressure compressed air across the fins or the use of a soft bristle brush may be sufficient. Applying a plain water or mild detergent solution to the surface, allowing it to sit for a short time then rinsing is employed. More aggressive deposits call for the use of stronger cleaning solutions or solvents as required.
11. Chemical cleaners and residues should be completely rinsed from the coil surfaces and removed from the HVAC system.

**G. Replacement Gate Valves and Chemical Access Valves (Except for AHU-BDR and AHU-CDR).**

1. Replace both inlet and outlet of the chilled water header pipes by using industrial and new gate valves. The gate valves shall be hydro test by independent testing center and the certificate shall be submitted to the CCP.
2. Replace the chemical access or purging valves by a ball valve.
3. Insulate the valves by using standard insulating materials.

**H. Testing:**

1. Test and Check-up of chilled water flow and recording of chilled water pressure and temperature.
2. Check for water leaks and repair if necessary.

**I. Final Inspection and Turn-Over:**

1. Submit Notice of Inspection / Turnover and Completion Reports prior to the date of the actual inspection and turnover.
2. Facilitate and coordinate the inspection that to be made by the CCP Project Engineer/s, Internal Audit inspector and COA inspector.

All defective works which may be found during the inspection must be corrected immediately to the satisfaction of the CCP Project Engineer/s and inspectors.

3. Submit invoice, warranty certificate, completion reports, inspection and test results, detailed costing, letter request of payment subject to approval of the CCP President, and other documents necessary for the processing of payment upon completion and acceptance of the project.

The CCP will prepare a Certificate of Completion and Acceptance after the inspection is satisfied/completed.

**J. Demobilization:**

1. Haul all wastes to a designated area by CCP Project Engineer/s.
2. Demobilize all tools, equipment and excess materials from the project site.

## **VI. CONDITION ON PROJECT IMPLEMENTATION:**

- A. The Duration of the project shall be **Thirty (30) Calendar Days**, to be reckoned on the actual day of commencement of the Project. It is understood that the actual work shall commence upon receipt by the CONTRACTOR of the Notice to Proceed.

The CONTRACTOR shall submit a Gantt Chart, Program of Works or methodology, List of Tools and Equipment to be used, and a List of all Personnel who will work on the Project before the actual commencement of work, for approval by the CCP.

- B. The **Thirty (30) Calendar Days** exclude regular holidays or unworkable days due to force majeure, disasters, severe weather conditions, or dates when work cannot be performed due to extreme or similar circumstances of which the CONTRACTOR shall be notified in writing.
- C. In the event the CONTRACTOR is unable to complete the Project for justifiable reasons, it may be allowed an extension of maximum of Fifteen (15) calendar days without penalty, provided it secures the prior written approval from CCP before the expiration of the Thirty (30) Calendar Days period of the Project.

The CCP shall not unreasonably withhold its consent and shall act on the CONTRACTOR's request within three (3) working days from receipt thereof.

- D. Any CCP property which may be damaged as a result of the implementation of the project must be restored to its original condition or replaced by the CONTRACTOR at no cost to the CCP. If the property could not be restored or replaced, the CONTRACTOR shall pay for the value of the property damaged. The value of the property shall be determined by the CCP.
- E. Delivery and storage of materials intended for the project must be properly coordinated by the CONTRACTOR to CCP Project Engineer. Delivery and storage of materials shall be made properly to avoid inconvenience to the CCP personnel or to the public. The Contractor shall present every delivery with the authentic delivery receipt to be acknowledged by the CCP Project Engineer who will designate an area to be used for storage.
- F. All materials to be used in the project shall be approved first by the CCP Project Engineer/s before application. Such materials shall be presented first for verification before use.
- G. Regular inspection shall be conducted by authorized CCP Project Engineer to monitor the compliance of the CONTRACTOR to the work specifications. All defective work determined by the CCP Project Engineer during the inspection must be corrected immediately by the CONTRACTOR at no cost to the CCP.

- H. The CCP will assign representative from the in-house engineering maintenance to oversee and assist the duration of the project to ensure the quality on work done in the areas completed. The Contractor shall present and label the completed plan and to be validated by the CCP overseer or Project Engineer. The CCP Project Engineer will coordinate the contractor project in charge at all times.
- I. All other works and requirements not expressly included in the scope of works but are absolutely necessary or are standard practices or requirements in similar projects, shall be considered integral parts of the scope of works, provided that any additional costs that may be incurred thereby, shall be for the account of the CONTRACTOR.
- J. The CONTRACTOR shall hold the CCP and its personnel free from any liability suit whatsoever arising from any claim by any personnel employed by the CONTRACTOR to perform the duties therein.
- K. All accomplished project work shall have one (1) year warranty from any defects due to its material and workmanship, effective on the date of Notice of Acceptance to be issued by the CCP. The CONTRACTOR shall issue a Warranty Certificate prior to Final Acceptance of the project.


**VII. APPROVED BUDGET COST:**

**FOUR HUNDRED EIGHTY THOUSAND THREE HUNDRED THIRTEEN PESOS ONLY (PHP 480,313.00), inclusive of all Value Added Tax (VAT).**

Please fill up the attached Bill of Materials for evaluation.



Prepared by:

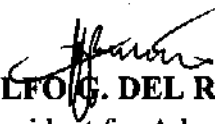
  
**ENGR. DEBBIE A. PONTERAS**  
Engineer IV, MESD

Reviewed/Checked by:


  
**ENGR. ROEL D. BERONIO**  
Division Chief III, MESD

Recommending Approval:

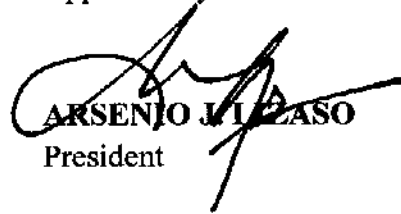
  
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Approved by:

  
**ARSENIO J. LASO**  
President