



**THIS IS NOT
AN ORDER**

REQUEST FOR BIDS/PROPOSALS COVERSHEET
THE UNIVERSITY OF SOUTHERN MISSISSIPPI
Procurement and Contract Services
118 College Drive #5003, Hattiesburg, Mississippi 39406-0001

Date: March 1, 2023

BID No. 23-23

THE UNIVERSITY OF SOUTHERN MISSISSIPPI is considering the purchase of the following item(s). We ask that you submit your bid and retain one copy for your files. Right is reserved to accept or reject any part of your bid. Your quotation will be given consideration if received in Bond Hall, Room 214 on or before:

2:00 p.m. CT

March 21, 2023

Buyer: Deidre Edwards

Name: _____

Company: _____

Address: _____

City/State/Zip: _____

TERMS - Bidder should state terms of sale. Our terms are 2% ten days, net 45 days.

These terms will apply per Mississippi law.

AWARDING CONTRACT - Cash terms will not be used as a basis for awarding contracts; however, the University will accept cash discounts when earned.

NOTE: If you cannot quote on the exact material shown, please indicate any exception giving brand name and complete specifications of any alternate. If additional space is required, use a separate sheet or letter of transmittal.

ITEM	QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL NET PRICE
		<p align="center">BID 23-23 Forrest County Hall – Data Center Chiller Replacement</p> <p align="center">RFx # 3160005725</p> <p>PROPOSAL MUST BE RETURNED TO THE UNIVERSITY IN ACCORDANCE WITH THE SPECIFICATIONS. RFP NUMBER AND DATE OF BID OPENING MUST BE SHOWN ON THE OUTSIDE OF THE ENVELOPE IF USING THAT METHOD.</p>		

We quote you as above - F.O.B. The University of Southern Mississippi.
Shipment can be made in _____ days from receipt of order. DATE _____
Return quotation to Procurement Services at above address.

Signature Required _____

**The University of Southern Mississippi
Request for Bids # 23-23
Forrest County Hall – Data Center Chiller**

1.0 Introduction

The University of Southern Mississippi (USM) is seeking to procure a Chiller for the Forrest County Hall – Data Center

2.0 Specifications

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes packaged modular, air-cooled, electric-motor-driven, scroll water chillers.
- B. Provide 5 modular chiller sections for a total capacity of 100 tons cooling.

1.2 DEFINITIONS

- A. DDC: Direct digital control.
- B. EMCS: Energy Management and Control System.
- C. GFI: Ground fault interrupt.
- D. I/O: Input/output.
- E. SCCR: Short-circuit current rating. F. TEAO: Totally enclosed air over.
- G. TENV: Totally enclosed non-ventilating.

1.3 SUBMITTALS

- A. Submit product data, O&M data, and samples and show item on shop and coordination drawings (where shop and coordination drawings are required) according to the following table.

- 1. "R" means required.
- 2. "R2" means required only for products and equipment differing for the specified manufacturer and model and for "or equals" where specified.

Item	Product Data	O&M Manual	Samples	Shop Drawing
Chillers	R	R		R
Chiller controls	R	R		
Chiller accessories	R	R		
Chiller BACnet PICS Statement	R			

B. Product Data: For each type of product.

1. Performance at ARI standard conditions and at conditions indicated.
2. Performance at ARI standard unloading conditions.
3. Performance data including; unit efficiency, full load and part load performance data, acoustical data, etc.
4. Minimum evaporator flow rate.
5. Refrigerant capacity of water chiller.
6. Oil capacity of water chiller.
7. Fluid capacity of evaporator.
8. Minimum entering condenser-air temperature.
9. Performance at varying capacity with constant design entering condenser-air temperature. Repeat performance at varying capacity for different entering condenser-air temperatures from design to minimum in 10 °F increments.
10. Dimensioned plan and elevation view drawings, required clearances, and location of all field connections.
11. Product data indicating rated capacities, weights, specialties and accessories, electrical requirements and wiring diagrams.
12. Required clearances for maintenance and operation.
13. Size and location of piping and wiring connections.
14. Wiring Diagrams: For power, signal, and control wiring.

C. Submittal Drawings: plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

1. Structural supports.
2. Piping roughing-in requirements.
3. Wiring roughing-in requirements, including spaces reserved for electrical equipment.
4. Access requirements, including working clearances for mechanical controls and electrical equipment, and tube pull and service clearances.

D. Startup service reports.

E. Warranty: Sample of special warranty.

F. Touchup Paint: 32 oz. container of paint used for finish coat. Label outside of container with detailed description of paint to allow for procurement of a matching paint in the future.

1.4 QUALITY ASSURANCE

A. AHRI Certification: Certify chiller according to AHRI 590 certification program.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Ship water chillers from the factory fully charged with refrigerant and filled with oil.

B. Package water chiller for export shipping.

1.6 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of water chillers that fail in materials or workmanship within specified warranty period.

1) Extended warranties include, but are not limited to, the following:

a) Refrigerant and oil charge.

i) Loss of refrigerant charge for any reason due to manufacturer's product defect and product installation.

b) Parts and labor.

2. Warranty Period: Five years from date of Substantial Completion.

PART 2 – PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. See attachment 1 modular chiller schedule and performance requirements.

B. Performance Tolerance: Comply with the following in lieu of AHRI 550/590:

1. Allowable Capacity Tolerance: Five (5) percent.

2. Allowable Full-Load Energy Efficiency Tolerance: Five (5) percent.

3. Allowable Part-Load Energy Efficiency Tolerance: Five (5) percent.

C. AHRI Rating: Rate water chiller performance according to requirements in AHRI 550/590.

D. ASHRAE Compliance: ASHRAE 15 for safety code for mechanical refrigeration.

E. ASHRAE/IES 90.1 Compliance: Applicable requirements in ASHRAE/IES 90.1, Section 6 - "Heating, Ventilating, and Air-Conditioning."

F. ASME Compliance: Fabricate and stamp water chiller heat exchangers to comply with ASME Boiler and Pressure Vessel Code.

G. Operation Following Loss of Normal Power:

1. Equipment, associated factory- and field-installed controls, and associated electrical equipment and power supply connected to backup power system shall automatically return equipment and associated controls to the operating state occurring immediately

before loss of normal power without need for manual intervention by an operator when power is restored either through a backup power source, or through normal power if restored before backup power is brought on-line.

2. See drawings for equipment served by backup power systems.
3. Provide means and methods required to satisfy requirement even if not explicitly indicated.

H. Outdoor Installations:

1. Chiller shall be suitable for outdoor installation indicated. Provide adequate weather protection to ensure reliable service life over a 25-year period with minimal degradation due to exposure to outdoor ambient conditions.
2. Chillers equipped to provide safe and stable operation while achieving performance indicated when operating at extreme outdoor temperatures encountered by the installation. Review historical weather database and provide equipment that can operate at extreme outdoor temperatures recorded over past 30-year period.

2.2 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. MultiStack (AirStack)
2. Artic Chill
3. ClimaCool
4. Or equal

2.3 GENERAL

- A. Chiller shall be designed for parallel evaporator water flow.
- B. System Description: Chiller shall incorporate Scroll type compressors and can consist of multiple modules. Each refrigerant circuit shall consist of an individual compressor set, common single circuit evaporator, single circuited condenser, electronic expansion valve (thermal expansion valve not acceptable), liquid line solenoid valve, filter drier, fin and tube condenser, and control system. Each circuit shall be constructed to be independent of other circuits from a refrigeration and electrical stand-point. The multi-circuit chiller (requires multiple modules) must be able to produce chilled water even in the event of a failure of one or more refrigerant circuits. Circuits shall contain R-410a refrigerant.
- C. Chiller Modules shall be ETL listed in accordance with UL Standard 1995, CSA certified per Standard C22.2#236.
- D. Chiller modules shall be AHRI certified.

- E. Modules shall ship wired and charged with refrigerant. All modules shall be factory run tested prior to shipment on an AHRI certified or 3rd party verified test stand.
- F. Compressors, heat exchangers, condenser fans, piping and controls shall be mounted on a heavy gauge, powder coated steel frame. Electrical controls, contactors, and relays for each module shall be mounted within that module. Module shall be provided within a steel enclosure suitable for outdoor use. Exposed steel surfaces shall be provided with a powder coat paint finish.
- G. Chilled Water Mains: Each module shall include supply and return mains for chilled water. Cut grooved end connections shall be provided for interconnection to standard piping with grooved type couplings.

2.4 CABINET AND FRAME

- A. Frame shall be constructed of a powder coated, formed galvanized sheet metal frame and panels.
- B. Cabinet shall be powder coated formed galvanized sheet metal panels on frame. The cabinet enclosure shall include easily removable access panels for service. Access panels shall be removable via stainless steel fasteners and retaining clips.

2.5 COMPRESSORS

Each module shall contain two hermetic scroll compressors in a tandem piping arrangement mounted to the module with rubber-in-shear isolators. Each system also includes high discharge pressure and low suction pressure safety cut-outs.

2.6 REFRIGERATION

- A. Refrigerant: R-410A. Classified as Safety Group A1 according to ASHRAE 34.
- B. Refrigerant Compatibility: Parts exposed to refrigerants shall be fully compatible with refrigerants, and pressure components shall be rated for refrigerant pressures.
- C. Refrigerant circuit: The chiller shall utilize dual independent refrigeration circuits in each module using hermetically sealed scroll compressors each with Rotalock connections, oil level sight glass, suction gas-cooled motor with solid-state sensors in the windings for overload protection, and circuit breaker protection. There shall be two independent compressors and refrigerant circuits per module. Compressors shall be mounted to the formed sheet metal frame with rubber-in-shear vibration isolators.
- D. Refrigerant Isolation: Factory install positive shutoff isolation valves in the compressor discharge line and the refrigerant liquid-line to allow the isolation and storage of the refrigerant charge in the chiller condenser.

E. Pressure Relief Device:

1. Comply with requirements in ASHRAE 15, ASHRAE 147, and applicable portions of ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.
2. Select and configure pressure relief devices to protect against corrosion and inadvertent release of refrigerant.
3. ASME-rated, spring-loaded, pressure relief valve; single- or multiple-reseating type. Pressure relief valve(s) shall be provided for each heat exchanger.

2.7 EVAPORATOR

- A. Evaporator: The chiller shall utilize a dual circuit, brazed plate evaporator on each module constructed of 316 stainless steel plates and copper brazing. The supply and return fluid piping connections to each evaporator shall include an electronic and a manual isolation valve to allow servicing of each module individually while the remaining modules continue to operate, and to allow for variable flow. The fluid connections to each evaporator shall use roll grooved couplings for service convenience and ease of installation. Each evaporator shall be insulated with $\frac{3}{4}$ inch closed cell insulation. The maximum working pressure shall be 650 psi. Evaporator piping fluid velocity shall not exceed 10 fps at any point in the system.
- B. Factory-furnished, thermal dispersion type chilled-water flow switch for field installation, if not factory installed.
- C. Heater: Factory-installed and -wired electric heater with integral controls designed to protect the evaporator to minus 20°F.

2.8 AIR-COOLED CONDENSER

- A. The air-cooled condenser coils have aluminum fins mechanically bonded to copper tubes with integral subcooling circuits.
- B. Low Ambient: Chiller shall incorporate appropriate refrigerant specialties including a properly sized refrigerant receiver and flooded head pressure control valves for operation to -20°F. This includes VFD driven condenser fan motors.
- C. The coils shall be factory tested to a minimum of 600 psig.
- D. The condenser fan motors shall be maintenance free, high efficient Electronically Commutated Motors (ECM) with energy reduction capabilities of up to 35%. The fan motors shall vary speed to maintain the refrigeration head pressure.
- E. Hail Protection: Provide condenser coils with architectural louvers, baffles, or hoods to protect against hail damage.

- F. Fans: Direct-drive propeller type with statically and dynamically balanced fan blades, arranged for vertical air discharge.
- G. Fan Motors: TENV or TEAO enclosure, with sealed and permanently lubricated bearings, and having built-in overcurrent- and thermal-overload protection.
 - 1. Overcurrent- and thermal-overload protection not integral to motor is acceptable if provided with chiller electrical power package.
- H. Fan Guards: Removable steel safety guards with corrosion-resistant PVC coating.

2.9 INSULATION

- A. Closed-cell, flexible, elastomeric thermal insulation complying with ASTM C 534/C 534M, Type I for tubular materials and Type II for sheet materials.
 - 1. Thickness: 1-1/4 inches (high-humidity insulation package).
- B. Adhesive: As recommended by insulation manufacturer.
- C. Factory-applied insulation over all cold surfaces of chiller capable of forming condensation. Components shall include, but not be limited to, evaporator, evaporator water boxes including nozzles, refrigerant suction pipe from evaporator to compressor, cold surfaces of compressor, refrigerant-cooled motor, and auxiliary piping.
 - 1. Apply adhesive to 100 percent of insulation contact surface.
 - 2. Before insulating steel surfaces, prepare surfaces for paint, and prime and paint as indicated for other painted components. Do not insulate unpainted steel surfaces.
 - 3. Seal seams and joints to provide a vapor barrier.
 - 4. After adhesive has fully cured, paint exposed surfaces of insulation to match other painted parts.
 - 5. Manufacturer has option to factory or field insulate chiller components to reduce potential for damage during installation.
 - 6. Field-Applied Insulation:
 - a) Components that are not factory insulated shall be field insulated to comply with requirements indicated.
 - b) Manufacturer shall be responsible for chiller insulation whether factory or field installed to ensure that manufacturer is the single point of responsibility for chillers.
 - c) Manufacturer's factory-authorized service representative shall instruct and supervise installation of field-applied insulation.
 - d) After field-applied insulation is complete, paint insulation to match factory-applied finish.

2.10 ELECTRICAL

- A. Factory installed and wired, and functionally tested at factory before shipment.
- B. Factory-installed and -wired switches, motor controllers, transformers, and other electrical devices necessary shall provide a single-point field power connection to water chiller.
- C. House in a unit-mounted, NEMA 250, Type 3R enclosure with hinged access door with lock and key or padlock and key.
- D. Wiring shall be numbered and color-coded to match wiring diagram.
- E. Field power interface shall be to circuit breaker. Minimum SCCR according to UL 508 shall be as required by electrical power distribution system.
- F. Each motor shall have branch power circuit and controls with one of the following disconnecting means having SCCR to match main disconnecting means:
 - 1. NEMA KS 1, heavy-duty, fusible switch with rejection-type fuse clips rated for fuses. Select and size fuses to provide Type 2 protection according to IEC 60947-4-1.
 - 2. NEMA KS 1, heavy-duty, nonfusible switch.
 - 3. UL 489, motor-circuit protector (circuit breaker) with field-adjustable, short-circuit trip coordinated with motor locked-rotor amperes.
- G. Each motor shall have overcurrent protection.
- H. Overload relay sized according to UL 1995, or an integral component of water chiller control microprocessor.
- I. Phase-Failure and Undervoltage: Solid-state sensing with adjustable settings.
- J. Controls Transformer: Unit-mounted transformer with primary and secondary fuses and sized with enough capacity to operate electrical load plus spare capacity.
- K. Control Relays: Auxiliary and adjustable time-delay relays, or an integral to water chiller microprocessor.
- L. Service Receptacle:
 - 1. Unit-mounted, 120-V GFI duplex receptacle.
 - 2. Power receptacle from chiller internal electrical power wiring.
- M. Indicate the following for water chiller electrical power supply:
 - 1. Current, phase to phase, for all three phases.

2. Voltage, phase to phase and phase to neutral for all three phases.
3. Three-phase real power (kilowatts).
4. Three-phase reactive power (kilovolt amperes reactive).
5. Power factor.
6. Running log of total power versus time (kilowatt hours).
7. Fault log, with time and date of each.

2.11 CONTROLS

- A. Factory installed and wired, and functionally tested at factory before shipment.
- B. Standalone, microprocessor based, with all memory stored in nonvolatile memory so that reprogramming is not required on loss of electrical power.
- C. The master chiller module shall incorporate the Master microprocessor controller. The master microprocessor shall communicate with the remaining Slave microprocessors in each module via a local network communications protocol. Each microprocessor shall include; operational switches for each compressor; high and low refrigeration pressure switches; low pressure pump down switches; anti-short cycling compressor timers; minimum compressor run timers; and phase monitor to protect against low voltage, phase unbalance, phase loss, and phase reversal conditions. A water-flow safety switch shall be provided by the chiller manufacturer, for field installation and wiring to the master microprocessor controller. To facilitate connection to Building Automation System and Remote Monitoring System, the master controller shall read all analog and fault port values from all Slave module controllers. The master controller shall be capable of passing values, compatible with the Modbus protocol, to the Building Automation System.
- D. Microprocessor: The microprocessor shall provide the following minimum functions and alarms:
 1. Adjustable fluid temperature set point.
 2. Multiple stage compressor control, including compressor rotation to provide even compressor usage and wear.
 3. High and low fluid temperature alarm set points.
 4. Water inlet and outlet temperature.
 5. Suction and discharge refrigeration pressures.
 6. Compressor run status.
 7. Current alarm status.
 8. Demand load.
 9. Compressor run hours.
 10. Alarm logging with minimum of previously 100 logged alarms with time and date of each occurrence.
 11. Remote start stop input.
 12. Dry contact for general alarm.

E. Operator Interface: Keypad or pressure-sensitive touch screen. Multiple-character, digital display. Display the following:

1. Date and time.
2. Operating or alarm status.
3. Operating hours.
4. Outside-air temperature if required for chilled-water reset.
5. Temperature and pressure of operating set points.
6. Chilled-water entering and leaving temperatures.
7. Refrigerant pressures in evaporator and condenser.
8. Saturation temperature in evaporator and condenser.
9. No cooling load condition.
10. Elapsed time meter (compressor run status).
11. Pump status.
12. Antirecycling timer status.
13. Percent of maximum motor amperage.
14. Current-limit set point.
15. Number of compressor starts.
16. Alarm history with retention of operational data before unit shutdown.
17. Superheat.

F. Control Functions:

1. Manual or automatic startup and shutdown time schedule.
2. Capacity control based on evaporator leaving-fluid temperature.
3. Capacity control compensated by rate of change of evaporator entering-fluid temperature.
4. Chilled-water entering and leaving temperatures, control set points, and motor load limit.
5. Current limit and demand limit.
6. External water chiller emergency stop.
7. Antirecycling timer.
8. Automatic lead-lag switching.
9. Ice-building mode.

G. Manual-Reset Safety Controls: The following conditions shall shut down water chiller and require manual reset:

1. Low evaporator pressure or high condenser pressure.
2. Low chilled-water temperature.
3. Refrigerant high pressure.
4. High or low oil pressure.
5. High oil temperature.
6. Loss of chilled-water flow.
7. Control device failure.

H. BAS System Interface: Factory-install hardware and software to enable system to monitor, control, and display chiller status and alarms.

1. Hardwired I/O Points:

a) Control: On/off operation.

2. Communication Interface: ASHRAE 135 (BACnet) communication interface shall enable control system operator to remotely control and monitor the water chiller from an operator workstation. Control features and monitoring points displayed locally at water chiller control panel shall be available through DDC system for HVAC.

I. Factory-installed wiring outside of enclosures shall be in NFPA 70-complaint raceway. Make terminal connections with liquid tight or flexible metallic conduit.

2.12 ACCESSORIES

Factory-furnished neoprene isolators for field installation.

PART 3 - EXECUTION

3.1 INSTALLATION

Installed by University of Southern Mississippi contractor.

3.2 STARTUP SERVICE

- A. Provide a factory-authorized service representative to perform startup service.
- B. Inspect field-assembled components, equipment installation, piping and electrical connections for proper assemblies, installations, and connections.
- C. Complete installation and startup checks according to manufacturer's written instructions and perform the following:
 - 1. Verify that refrigerant charge is sufficient and water chiller has been leak tested.
 - 2. Verify that thermometers and gages are installed.
 - 3. Operate water chiller for run-in period.
 - 4. Check bearing lubrication and oil levels.
 - 5. Verify that refrigerant pressure relief device for chillers installed indoors is vented outside.
 - 6. Verify proper motor rotation.
 - 7. Verify static deflection of vibration isolators, including deflection during water chiller

startup and shutdown.

8. Verify and record performance of chilled-water flow and low-temperature interlocks.
 9. Verify and record performance of water chiller protection devices.
 10. Test and adjust controls and safeties. Replace damaged or malfunctioning controls and equipment.
- D. Visually inspect chiller for damage before starting. Repair or replace damaged components, including insulation. Do not start chiller until damage that is detrimental to operation has been corrected.
- E. Prepare a written startup report that records results of tests and inspections.

3.3 DEMONSTRATION

- A. Provide a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain water chillers. Video record the training sessions and provide electronic copy to Owner. See Section 230010 "Mechanical General Provisions."
1. Instructor shall be factory trained and certified.
 2. Provide not less than four hours of training.
 3. Train personnel in operation and maintenance and to obtain maximum efficiency in plant operation.
 4. Provide instructional videos showing general operation and maintenance that are coordinated with operation and maintenance manuals.
 5. Obtain Owner sign-off that training is complete.
 6. Owner training shall be held at Project site.

PART 4 - SCHEDULE

See Attachment 1

3.0 Point of Contact

For questions, contact the Buyer listed on the Bid Coversheet at:

bids@usm.edu

4.0 Submission Instructions to Bidders

One (1) signed original, two (2) copies, and one (1) portable virus/malware free electronic version (USB jump drive) of the sealed bid response (if electronic copy is not included, USM reserves the right to request an electronic copy of the exact bid response prior to review of the bid), subject to the conditions made a part hereof, will be received by **2:00 PM CDT on Tuesday, March 21, 2023** in the USM Procurement and Contract Services office, as indicated in the General Terms,

Conditions, and Instructions to Bidders described herein. It is the responsibility of the respondent to ensure that the proposal package arrives in the Procurement and Contract Services Office.

Each bid **must** be submitted in a sealed envelope bearing on the outside the name "Bid # 23-20 Raman Microscope," the name of the Vendor, and the opening date specified on the coversheet.

For regular mail:

The University of Southern Mississippi
Attn: Deidre Edwards, Buyer
118 College Drive, Box 5003
Hattiesburg, MS 39406
BID 23-23

For FedEx, UPS, or other express couriers:

The University of Southern Mississippi
Attn: Deidre Edwards, Buyer
2609 W. 4th Street
Hattiesburg, MS 39401
BID 23-23

Hand-carried responses should be brought to:

The University of Southern Mississippi
Attn: Deidre Edwards, Buyer
214 Bond Hall
Hattiesburg, MS 39406
BID 23-23

As an alternative to traditional sealed proposals in envelopes, the University of Southern Mississippi is capable of receiving electronic bid responses. While this option is available, it is not required and we ask that all potential respondents keep in mind that with any electronic system there could be delays or glitches with the submission process; therefore the University *highly encourages traditional sealed responses* which are either mailed or submitted in person. Additionally, the University will not be responsible for issues with attempted submissions of bids using the electronic method.

Should a vendor choose to submit their response electronically, please follow the instructions below using the following website:

https://www.ms.gov/dfa/contract_bid_search/Home/Sell.

On this site you will find helpful links to procurement opportunities, as well as a link to supplier registration. If not already registered in this system, potential bidders will first need to click on

'Supplier Registration' and follow the steps outlined (a one-time process). Once registered, suppliers can return to the original website and click on 'Procurement Opportunities' where they can either search by keyword for the bid they desire to respond to or leave the search box blank and click 'Search' for a listing of all current bids and proposals for the various State of Mississippi offices.

Please note that emailed bids will not be accepted.

Any bid may be withdrawn prior to scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified will not be considered.

The University of Southern Mississippi reserves the right to accept or reject any or all proposals and to waive any formalities.

Vendors are responsible for examining all specifications, terms, conditions, and instructions of this request. Failure to do so will be at Vendor's risk.

In order to ensure all interested bidders receive any addenda that may be issued, proposers must email their intent to propose using the Intent to Bid link on the USM Bid Listing under RFP 23-20 prior to the deadline to submit:

<https://www.usm.edu/procurement-contract-services/current-bids-and-sole-source-notices.php>

5.0 USM General Terms, Conditions, and Instructions for Bids/Proposals

- 1.) Failure to examine any drawings, specifications, and instructions will be at bidder's risk.
- 2.) Samples of items when called for must be furnished free of expense and if not destroyed in testing, will, upon request, be returned at the bidder's expense. Request for the return of samples must be made within ten (10) days following opening bids. Each individual sample must be labeled with bidder's name and manufacturer's brand name and number.
- 3.) As a public entity of the state, we use sealed bidding to ensure "fair and open competition" to ensure no one in the buying organization can influence the bidding process or steer the selection of a particular company by sharing competitive bid information during the solicitation process. Generally, all bids must remain sealed until they are opened publicly at the time stated in the notice—advance disclosure of the terms of a bid may be cause for rejection of said bid. Bidders should never send advanced copies of a sealed bid via email or screenshots of electronic bids. Bidders must submit sealed bids to be opened at the time and place stated in the solicitation for the public opening of bids and must not be revealed to the buyer before that time. Bids must be signed and sealed with bidder's name and address on the outside of the envelope, and the date and time of the bid opening and the bid file number shown in the lower-left corner of the packages, envelopes, express mailing labels, boxes, etc.

- 4.) In order for your bid to be considered, it must be received and time stamped in our office by 2:00 P.M. of the bid opening date. It is the responsibility of the vendor to ensure their bid is received within the appointed time. If your bid package is not received in Bond Hall, Room 214, by 2:00 P.M. of the bid opening date, it will not be considered.

If you are delivering your bid, you need to hand carry the bid package to:

The University of Southern Mississippi
Procurement Dept. (Bid)
Bond Hall, Room 214
Hattiesburg, Mississippi
BID # 23-23

If you are mailing your bid package via U.S. Postal Service, mail to:

The University of Southern Mississippi
Procurement Dept. (Bid)
118 College Drive #5003
Hattiesburg, MS 39406-0001
BID # 23-23

If you are express mailing your bid package via Federal Express or UPS, or any other delivery service which requires the use of a physical address, deliver to:

The University of Southern Mississippi
Procurement Dept. (Bid)
2609 West 4th Street
Hattiesburg, MS 39401
BID # 23-23

- 5.) Bids or proposals shall not be modified, corrected, altered, or amended after the specified closing time and the opening of such bids, unless otherwise noted in the request for bids or proposals.
- 6.) The University of Southern Mississippi reserves the right to reject any and all bids, to waive any informality in bids, and unless otherwise specified by the bidders, to accept any items on the bid. If the bidder fails to state the time within which bids must be accepted, it is understood and agreed that The University of Southern Mississippi shall have 60 days to accept. The University of Southern Mississippi reserves the right to make an award to this bid on an all or none basis, or on a line by line basis, whichever serves the best interest of The University of Southern Mississippi.
- 7.) Contracts and purchases will be made or entered into with the lowest, responsible bidder meeting specifications.

- 8.) A written purchase order or contract award mailed or otherwise furnished to the successful bidder within the time of acceptance specified in the Invitation for Bid results in a binding contract without further action by either party. The contract shall not be assignable by the vendor in whole or in part without the written consent of The University of Southern Mississippi.
- 9.) Bid files may be examined during normal working hours by bid participants. Non-participants will be prohibited from obtaining any information relative to the bid until the official award has been made.
- 10.) If purchase orders or contracts are canceled because of the awarded vendor's failure to perform or request for price increase, that vendor shall be removed from our bidders' list for a period of 24 months.
- 11.) No addendum will be issued within a period of two (2) working days prior to the time and date set for the bid opening. Should it become necessary to issue an addendum within the two-day period prior to the bid opening, the bid date will be reset giving bidders ample time to answer the addendum.
- 12.) Alternate bids, unless specifically requested or allowed, will not be considered.
- 13.) Bid openings will be conducted open to the public. However, they will serve only to open the bids. No discussion will be entered into with any vendor as to the quality or provisions of the specifications, and no award will be made either stated or implied at the bid opening. After the close of the bid opening meeting, the bids will be considered to be in the evaluation process and will not be available for review by bidders. Proposal openings are not required to be open to the public; however, the resulting award is open for public inspection.
- 14.) Prices quoted shall be firm for the term of the contract or for the stated time of acceptance.
- 15.) The bidder understands that The University of Southern Mississippi is an equal opportunity employer and, therefore, maintains a policy which prohibits unlawful discrimination based on race, color, creed, sex, age, national origin, physical handicap, disability, or any other such discrimination; and the bidder, by signing this bid, agrees during the term of agreement that the bidder will strictly adhere to this policy in its employment practices and provision of products or services.
- 16.) Bidders must upon request of The University of Southern Mississippi furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. The University of Southern Mississippi reserves the right to make the final determination as to the bidder's ability.
- 17.) Questions or problems arising from bid procedures should be directed to the Buyer listed

on the solicitation at:

The University of Southern Mississippi
118 College Drive #5003
Hattiesburg, MS 39406-0001
Phone: (601) 266-4131

- 18.) All items must equal or exceed the specifications listed. The absence of detail specifications or the omission of detail description shall be recognized as meaning that only the best commercial practices are to prevail and that only first quality materials and workmanship are to be used.
- 19.) It is the intent of the specifications to obtain a product that will adequately meet the needs of the user while promoting the greatest extent of competition that is practicable. It is the responsibility of the prospective bidder to review the entire Invitation to Bid packet and to notify The University of Southern Mississippi if the Specifications, Instructions, General, or Special Conditions are formulated in a manner which would unnecessarily restrict competition.
- 20.) It shall be incumbent upon the bidders to understand the specifications. Any requests for clarifications shall be in writing and shall be submitted to our Procurement Services office at least five (5) days prior to the time and date set for the bid opening, unless otherwise noted in the bid or proposal specifications.
- 21.) The minimum specifications are used to set a standard and in no case are used with the intention to discriminate against any manufacturer. Bidders should note the name and the manufacturer and model number of the product they propose to furnish and submit descriptive literature.
- 22.) Trade names, brand names, and/or manufacturer's information used in these specifications are for the purpose of establishing quality, unless otherwise noted. Bids on products of other qualified manufacturers are acceptable, provided they are demonstrated as equal to those specified in construction, design and suitability. Each bidder shall submit with his bid a complete brochure with pictures on each item and shall point out specifically any deviations from the specified items. Failure to do so may disqualify any bid. Please bid as specified or an approved equal.
- 23.) A copy of the manufacturer's standard guarantee/warranty shall accompany and become a part of this bid.
- 24.) There are no federal or state laws that prohibit bidders from submitting a bid lower than a price or bid given to the U.S. Government. Bidders may bid lower than U.S. Government contract price without any liability as The University of Southern Mississippi is exempt from the provisions of the Robinson-Patman Act and other related laws. In addition, the U.S. Government has no provisions in any of its purchasing arrangements with bidders

whereby a lower price to The University of Southern Mississippi must automatically be given to the U.S. Government.

- 25.) All invoices, unless noted otherwise, are to be billed to:

The University of Southern Mississippi
Accounts Payable
118 College Drive #5104
Hattiesburg, MS 39406-0001

- 26.) All equipment bid shall be of current production and of the latest design and construction.
- 27.) Where all, or part(s), of the bid is requested on a unit price basis, both the unit prices and the extension of the unit prices constitute a basis of determining the lowest responsible and responsive bidder. In cases of error in the extension of price, the unit price will govern.
- 28.) All bidders/respondents are on notice that USM is a public agency of the State of Mississippi and is subject to the Mississippi Public Records Act, Miss. Code Ann. § 25-6-1, *et seq.* If a public records request is made for any information provided to the USM pursuant to this solicitation, USM shall promptly notify the Disclosing Party of such request. The Disclosing Party shall promptly institute appropriate legal proceedings to protect its information. No party to this agreement shall be liable to the other party for disclosures of information required by court order or required by law. For clarity, documents are not considered public record unless and until an award is made from such solicitation.
- 29.) Should the University of Southern Mississippi close due to inclement weather conditions, or any other unforeseen events on the bid opening date, sealed bids will open the following business day at the same time and location.
- 30.) As an alternative to traditional sealed bids in envelopes, the University of Southern Mississippi is capable of receiving electronic bid responses. While this option is available, it is not required and we ask that all potential respondents keep in mind that with any electronic system there could be delays or glitches with the submission process; therefore the University highly encourages traditional sealed bids which are either mailed or submitted in person. Should a vendor choose to submit their response electronically, please follow the instructions below using the following website: https://www.ms.gov/dfa/contract_bid_search/Home/Sell. On this site you will find helpful links to procurement opportunities, as well as a link to supplier registration. If not already registered in this system, potential bidders will first need to click on 'Supplier Registration' and follow the steps outlined (a one-time process). Once registered, they can return to the original website and click on 'Procurement Opportunities' where they can either search by keyword for the bid they desire to respond to or leave the search box blank and click 'Search' for a listing of all current bids and proposals for the various State

of Mississippi offices. Instructions on how to respond to an RFX in M.A.G.I.C. may be located at the following link:

<http://upperform.magic.ms.gov/gm/folder-1.11.9125?mode=EU&primaryCSH=RFX%2Cresponses>

NOTE: If you experience any problems with submitting your response through M.A.G.I.C. Please email the M.A.G.I.C. IT Helpdesk at mash@dfa.ms.gov.

****PLEASE NOTE: EMAILED BIDS WILL NOT BE ACCEPTED, AND IT MAY CAUSE YOUR BID TO BE REJECTED FOR EARLY DISCLOSURE. ****

With regard to construction bids, there is one additional step required during the bid submission process. Along with the bid response and other attachments, contractors will also need to attach their Certificate of Responsibility (COR), or a statement that the bid enclosed does not exceed Fifty Thousand Dollars (\$ 50,000.00). If their COR or such statement is not attached, the bid will be invalid and not considered.

AA/EOE/ADA

MODULAR AIR COOLED CHILLER SCHEDULE

MARK	MFG	MODULE M/N	TONS	EVAPORATOR				COND. EAT	COMPRESSORS		CONDENSOR FAN		MODULE		
				GPM	EWT	LWT	PD (FT)		NO.	RLA	NO.	FLA	ELECTRICAL	MCA	MOP
CH-1.1	MULTISTACK	ASP-20X	20	46.7	44	54	7.29	95	2	16.8	2	3.6	460V/60/3PH	45	70
CH-1.2	MULTISTACK	ASP-20X	20	46.7	44	54	7.29	95	2	16.8	2	3.6	460V/60/3PH	45	70
CH-1.3	MULTISTACK	ASP-20X	20	46.7	44	54	7.29	95	2	16.8	2	3.6	460V/60/3PH	45	70
CH-1.4	MULTISTACK	ASP-20X	20	46.7	44	54	7.29	95	2	16.8	2	3.6	460V/60/3PH	45	70
CH-1.5	MULTISTACK	ASP-20X	20	46.7	44	54	7.29	95	2	16.8	2	3.6	460V/60/3PH	45	70

NOTES:

1. MODULAR AIR COOLED LIQUID CHILLER FOR CRITICAL ENVIRONMENTS (N + 1 DESIGN)
2. DUAL HERMATIC SCROLL COMPRESSORS WITH INDEPENDENT REFRIGERANT CIRCUITS
3. STAINLESS STEEL PLATE AND FRAME EVAPORATOR FOR DUAL INDEPENDENT REFRIGERANT CIRCUITS
4. FACTORY INSULATED EVAPORATOR WITH FACTORY IN STALLED HEAT TAPE AND CONTROLS
5. CONDENSER - ALUMINUM FINS BONDED TO INTERNALLY FINNED COPPER TUBES WITH DUAL CONDENSER FAN S
6. COMPLETE MODULE REFRIGERANT CHARGE AND FACTORY START-UP
7. STANDARD LOW AMBIENT OPERATION TO 0 DEG. F
8. CHILLER SHALL HAVE "FAIL TO RUN " C ONTROLS PROGRAM FOR CRITICAL APPLICATIONS TO ALLOW AUTOMATIC SWITCHING OF CHILLER CONTROL FROM MASTER CONTROLLER TO INDIVIDUAL MODULE CONTROL BOARDS. EACH MODULE SHALL BE CAPABLE OF INDIVIDUAL CAPACITY CONTROL BASED ON MODULE LEAVING TEMPERATURE. MASTER
9. EACH MODULE SHALL HAVE POWER PHASE MON ITOR AND PRESSURE DIFFERENTIAL SW ITC H TO PROVE EVAPORATOR FLOW.
10. EACH MODULE SHALL HAVE SEPARATE POWER SUPPLY AND CONTROL TRANSFORMER.
11. NO PUMP MODULE REQUIRED. CHILLER UTILIZES EXISTING BUILDING PUMPS.

MODULAR CHILLER PERFORMANCE - SUMMARY OF REQUIREMENTS									
Load	Capacity (Tons)	Input kW	kW/Ton	EER (Btu/Wh)	COP (kW/kW)	Flow Rate (GPM)	Leaving Temp. °F	DP (ft H2O)	Ambient °F
100%	80.0	86.6	1.079	11.12	3.26	186.8	44	6.7	95
75%	60.0	48.9	0.812	14.78	4.33	186.8	44	6.7	80
50%	40.0	26.7	0.665	18.01	5.28	186.8	44	6.7	65
25%	20.0	11.5	0.575	20.85	6.11	186.8	44	6.7	55

NOTE:

1. PERFORMANCE DATA OF 4 OPERATING MODULES AND 1 RESERVE