



Department of Facilities and Maintenance

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From the desk of:

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Overview

Shelby Board of Education (SCBE) Chiller Preventive Maintenance Service

Project: Submit a bid for Chiller Preventive Maintenance Service Per School

Scope of Work

The purpose of this project is to provide complete chiller preventive maintenance and annuals service per manufacturer installation manual and task list below. Duration of the contract is for 1 year with (3) 1 year options to renew.

AIR-COOLED CHILLERS TASK LIST

1. Wash the condenser coils during the annual spring inspection
2. Check chiller electrical connections in control/power panel for tightness
3. Check all contactors for pitting
4. Clean the control panel if needed
5. Visually inspect connections for signs of overheating
6. Check compressor crankcase heater operations
7. Test and calibrate all refrigerant pressure transducers and water sensors
8. Leak check chiller for refrigerant leaks during annual service
9. Check sight glass for clear flow
10. Run each compressor and check for unusual noises or vibration
11. Verify each condenser fan motor is operational
12. Verify fan blades are not cracked or damaged
13. Review history log for each chiller for reoccurring issues
14. Verify refrigerant superheat and subcooling for each circuit when running
15. Verify panel heaters are working
16. Verify all safeties and flow sensor/switch are working properly
17. Clean evaporator pump strainer.
18. Upgrade the software if needed during the annual service
19. Report any deficiencies to customer and quote any needed repairs

WATER-COOLED CHILLERS TASK LIST

1. Mechanically brush condenser tubes on water cooled chillers and replace head gasket (Includes head removal)
2. Check electrical connections
3. Check micro panel operations and history logs
4. Leak check chillers for refrigerant leaks, includes heating up low-pressure chillers
5. Change the oil filter and o'ring
6. Change purge driers if applicable
7. Test and calibrate all refrigerant pressure transducers and water sensors
8. Brush Start VSD/Solid State Starter Heat Exchanger and clean strainer
9. Check oil cooler strainer and temperature regular valve
10. Take a comprehensive oil sample and provide report to customer

11. Replace the Solid-State Starter/VSD coolant
12. Clean chiller pumps.
13. Clean condenser pumps.
14. Start chiller and check all operations
15. Verify Loading and Unloading of compressor
16. Grease the motor in applicable
17. Empty Catch Bottle and log run hours
18. Upgrade the software if needed during the annual service
19. Report any deficiencies to customer and quote any needed repairs

Guidelines

The following must be provided and submitted for each chiller and tagged for each building:

1. Provide a binder with separate tabs for each building. Email all reports to SCS attention Clay Rudolph as well as updating the hard binder at each school location.
2. Include a report sheet of the task list for each chiller with model and serial number inside each bidder at the school.
3. Include evaluation report for each chiller noting any deficiencies or issues with chiller or installation.
4. Submit oil Sample analysis and report for water-cooled chillers to Clay Rudolph for review.
5. Submit Refrigerant sample analysis and data to Clay Rudolph for review.
6. Minimum tasking for each type chiller:
7. All work must be coordinated with SCS. Contact Clay Rudolph to approve all site scheduling.
8. All reports must be dated, signed, and verified by manufacturer's technician and signed off by an SCS representative immediately after inspection of the chiller.

Qualifications:

The following must be provided and submitted with the bid for consideration:

1. Bidder must have minimum for five factory certified technicians for each chiller they submit this bid.
2. Submit a copy of factory certification for each technician and chiller type and manufacturer with the bid document.
3. Bidder must have a local office and technicians that live within 25 miles of SCS main office.
4. Bidder will not be considered for a school if they are not factory certified to work on the chiller installed.

See Individual School Chiller Price List.

A total count of 133 schools will be included in the bid. Please provide the total for the entire project cost.