

WARREN CONSOLIDATED SCHOOLS
31300 Anita Drive Warren, MI 48093
TELEPHONE 1-586-698-4146
Susan Andrzejewski
Fiscal Services Manager

CONDITIONS OF THIS PROPOSAL

PROPOSALS WILL NOT BE CONSIDERED UNLESS SUBMITTED ON THE ATTACHED FORMS.

RETURN 2-COPIES IN SEALED ENVELOPE WITH PROPOSAL TITLE, DUE DATE AND TIME.

District HVAC Boiler Preventive Maintenance and Repair Services

THIS PROPOSAL MUST BE IN THE FISCAL SERVICES DEPARTMENT NOT LATER THAN

May 27, 2026 - 2:00 PM

Proposals will not be accepted after the above date and time.

A PROPOSAL BOND **WILL NOT** BE REQUIRED WITH THIS PROPOSAL X .

A PROPOSAL BOND OF **5% IS REQUIRED** WITH THIS PROPOSAL _____.

Certified check or proposal bond, if required, must accompany the proposal, at which time the proposals will be opened. No proposal will be considered unless a certified check or proposal bond is furnished, if required.

Every person, firm, or corporation submitting any proposal for construction work, equipment, materials or services of any kind shall be required to furnish with such proposal a certified check or proposal bond in an amount indicated above which shall be forfeited to the Board of Education in case of failure of the proposer to sign a contract after acceptance of the proposal by the Board of Education.

Quotations on equipment, materials or supplies must be F.O.B. point of delivery specified, including packing and crating charges, and fuel surcharges.

MATERIALS INCLUDED IN THIS PROPOSAL CAN BE DELIVERED WITHIN _____DAYS, FOLLOWING RECEIPT OF ORDER FOR SAME.

STATE CASH DISCOUNT TERMS _____Business days

Terms allowing discount "A Time of Payment" (not less than 10 business days) will be given preference. Terms of Payment and Delivery will be considered in making awards.

The Board reserves the right to reject any or all proposals or parts of proposals, or to split award by items or to accept the proposal which will best serve the interest of the Board of Education.

Proposers must make their proposals strictly in accordance with requirements and specifications, otherwise they may not be considered.

Proposers are granted the privilege of withdrawing their proposals, if they desire, between the time they are submitted and opened.

Proposers are invited to consult with the Fiscal Services Department concerning conditions required for submitting proposals, use of materials, or previous quotations.

WARREN CONSOLIDATED SCHOOLS
Warren, Michigan 48093
May 27, 2026

THIS IS NOT AN ORDER

The undersigned proposes to deliver F.O.B., any one or all of the items at prices specified to:

LOCATION: Multiple locations; refer to EXHIBIT A for complete list of addresses_____.

No proposals shall be accepted from, or contract awarded to, any person who is in arrears to the Board of Education of Warren Consolidated Schools upon debt or contract, or who is defaulter as security or otherwise upon an obligation to the Board of Education of Warren Consolidated Schools.

District HVAC Boiler Preventive Maintenance and Repair Services

May 27, 2026 - 2:00 PM

The undersigned proposes to furnish in accordance with attached specifications and for the prices quoted on the attached Sheets (2-copies).

TERM: Pricing firm for length of contract
See Proposal and Specifications

CONTACT: John Lettang
(586) 698-4449
jlettang@wcskids.net

Terms to remain firm for the contract period.

Reference to be provided upon request.

A proposal bond WILL NOT be required.

Prices shall be quoted F.O.B. Delivered.

*Proposals shall be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the owner or any employee of the proposer and any member of the Board of the Superintendent. Additionally, proposals shall include a sworn and notarized affidavit of compliance – Iran Economic Sanctions Act of 2012.

*Addenda will be issued no later than three days prior to the date for receipt of proposals except an addendum withdrawing the request for proposals or one which includes postponement of the date for receipt of proposals. It is the responsibility of any person/persons downloading proposals from the WCS website to revisit the website three days prior to the proposal opening to address any addenda issued. Acknowledgement for the receipt of such addenda must be included in the response.

*Warren Consolidated Schools and the Proposer agrees that they will not discriminate against any employee or applicant for employment on the basis of race, color, national origin, sex, (including sexual orientation or transgender identity) disability, age, religion, height, weight, marital or family status, military status, ancestry, genetic information, or any other legally protected category, (collectively, "Protected Classes"). The supplier shall take affirmative action to ensure that applicants are employed, and that employees are treated without regard to race, color, national origin, sex, (including sexual orientation or transgender identity) disability, age, religion, height, weight, marital or family status, military status, ancestry, genetic information, or any other legally protected category, (collectively, "Protected Classes").

In the event that this proposal is accepted to furnish whatever is included herein, the successful proposer agrees to furnish compensation insurance (if labor is required in the fulfillment of this contract order), which will amply protect the interest of the Board of Education.

District HVAC Boiler Preventive Maintenance and Repair Services

May 27, 2026 - 2:00 PM

This is to certify that the prices, quality, quantity and delivery of the above-mentioned material of commodity will be exact conformity with the specifications, samples and proposition therefore, and declare that it is made without collusion with any other person, firm, or corporation making any other proposal, or who otherwise would make a proposal, and agree to furnish in strict accordance with the specifications.

If your company does not wish to quote but would like to remain on our list, please complete the vendor information below and return this page to Warren Consolidated Schools, Attention: Fiscal Services Department, 31300 Anita Drive Warren, Michigan 48093.

Company Name _____

Contact Name and Title _____

Signature _____

Address _____

City _____ State _____ Zip Code _____

Phone _____ Fax _____

E-mail Address _____

*Include any updated company information below:

GENERAL CONDITIONS

1.0 GENERAL CONDITIONS

- 1.01 **Familial** – Proposals shall be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the owner or any employee of the proposer and any member of the Board or the Superintendent.
- 1.02 **Conditions** – The Warren Consolidated Schools reserves the right to reject and/or accept all proposals or parts of proposals, or to split award by items or to accept the proposal which best serves the interest of the school district.
- 1.03 **Smoking and use of Tobacco Products** – Smoking and/or the use of any tobacco product is strictly prohibited within any facility or any grounds at all times.
- 1.04 **Deviations** – All deviations from specifications must be listed separately in writing and included in this proposal.
- 1.05 **Proposals** – Proposals will be accepted on the forms provided by the owner. No oral, fax or telephone proposals or modifications will be accepted.
- 1.06 **Iran Economic Sanctions Act** – Proposals shall be accompanied by a sworn and notarized statement disclosing the proposer is not and will not become an “Iran Linked Business” at any time during the course of performance under the contract.

AFFIDAVIT OF PROPOSER

The undersigned, the owner or authorized officer of _____ (the "Proposer"), pursuant to the familial disclosure requirement provided in the _____ (the "School District") advertisement for proposals, hereby represent and warrant, except as provided below, that **no familial relationships exist** between the owner(s) or any employee of _____ and any member of the Board of Education of the School District or the Superintendent of the School District.

List any Familial Relationships:

PROPOSER:

By: _____

Its: _____

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

This instrument was acknowledged before me on the _____ day of _____, 20 _____, by
_____.

, Notary Public

_____ County, Michigan

My Commission Expires: _____

Acting in the County of: _____

AFFIDAVIT OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT

Michigan Public Act No. 517 of 2012

The undersigned, the owner or authorized officer of _____ (the "Proposer"), pursuant to the compliance certification requirement provided in the Warren Consolidated School District (the "Warren Consolidated Schools") Invitation For Proposals for **District HVAC Boiler Preventive Maintenance and Repair Services** hereby certifies, represents and warrants that the Proposer (including its officers, directors and employees) is not an "Iran Linked Business" within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the "Act"), and that in the event Proposer is awarded a Contract as a result of the aforementioned Invitation For Proposal, the Proposer will not become an "Iran Linked Business" at any time during the course of performing under the Contract.

The Proposer further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000 or 2 times the amount of the Contract or proposed Contract for which the false certification was made, whichever is greater, the cost of the Warren Consolidated Schools investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on an Invitation For Proposal for three (3) years from the date it is determined that the person has submitted the false certification.

PROPOSER:

Name of Proposer

By: _____

Its: _____

Date: _____

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

This instrument was acknowledged before me on the _____ day of _____, 20 _____, by
_____.

_____, Notary Public
_____ County, Michigan

My Commission Expires: _____

Acting in the County of: _____

WARREN CONSOLIDATED SCHOOLS
Specifications for the District HVAC Boiler Preventive Maintenance and Repair Services

PROPOSAL FORM

Company Name: _____ **Date:** _____

Address: _____ **City:** _____ **State:** _____ **Zip Code:** _____

Form Filled Out By: _____ **Title:** _____

Signature: _____

Telephone: () _____ **Fax Number:** () _____

Please Return To: **Warren Consolidated Schools**
 Fiscal Services Department (SEALED BIDS)
 31300 Anita Drive
 Warren, MI 48093

Warren Consolidated School District is requesting proposals for HVAC Boiler Preventive Maintenance, CSD-1 inspections, and Repair Services according to the specifications.

The individual signing this proposal warrants they have the authority to obligate the company to the provisions and requirements of the project documents.

PROPOSAL AND SPECIFICATIONS

I. SPECIFICATIONS

1. PROPOSAL SCOPE

Scope: The district is seeking proposals from State-licensed heating and cooling service companies for HVAC Boiler Preventive Maintenance and Repair Services at twenty-four (24) district facilities. The HVAC Contractor will provide preventive maintenance and repair services for district boilers and administer the duties and responsibilities set forth in this Request for Proposal (RFP) in compliance with all applicable laws, regulations, policies, and procedures. Firms submitting bids must be prepared to immediately enter into a contract for the services and duties set forth in this RFP.

The work will include the provision of a preventive maintenance and repair program for district boilers consisting of a variety of tasks for repair and maintenance associated with the boilers and related components.

Preventive Maintenance - the contractor is to provide labor, equipment, material, and Supplies to perform HVAC preventive maintenance within district facilities.

We request preventive maintenance as set forth in this RFP. Number of boilers and manufacturers as follows:

- 61 - Aerco Boilers
- 3 - Harsco Boilers (aka Patterson-Kelly)

See **EXHIBIT A** - for boiler information and buildings

Aerco Boilers - requesting **24-month** preventive maintenance as noted in Manufacturer's Maintenance Schedule Table 4-1. See **EXHIBIT B**. Maintenance kits for 24-month and annual service must include OEM parts replacement.

Harsco Boilers - requesting **Annual** preventive maintenance as noted in Manufacturer's Maintenance Schedule 6.1.15. See pages 1 and 2 of **EXHIBIT C**

REQUIRED

Proposals must be accompanied by sample checklist used by company technicians.

CSD-1 Boiler Inspections - requesting a separate quote for annual CSD-1 boiler inspection for all boilers.

Current year preventive maintenance and CSD-1 services must be completed by August 31, 2026.

REPAIR SERVICES

Requesting service rates for additional repair services. All service work shall require proper prior authorization by a supervisor and district purchase order number. Provide written warranty coverage for repair services.

2. EVALUATION CRITERIA

Award will be made to the most qualified responsive proposer. The evaluation criteria will include: compliance with specifications, pricing and service.

3. LENGTH of CONTRACT

Length of Contract: July 1, 2026 through June 30, 2027.

4. INSURANCE

The Proposer shall maintain the following insurance in force at all times during the length of the contract, with an "A" rated Best insurance carrier acceptable to the School District. The School District and the Proposer agree that the Proposer shall maintain such insurance scheduled below as primary insurance to any insurance available to the School District and that the School District's insurance shall not contribute to any liabilities covered under the scheduled insurance below, but shall be considered excess of all such insurance. The Proposer and/or its insurer/claim administrator will be responsible for claim investigation and claim payments for all losses covered by its policies. It is further agreed that, for claims arising specifically under or relating to this agreement, the Proposer shall name the School District, including all elected and appointed officials, all employees and volunteers, all boards,

commissions and/or authorities and board members, including employees and volunteers thereof, as an "Additional Insured" under each separate policy of insurance scheduled below, in a form of endorsement to the policies approved by the School District in writing.

<u>Policy</u>	<u>Minimum Limits</u>
(a) Workers Compensation	Statutory
(b) Comprehensive General Liability	
(1) Bodily Injury Liability	\$1,000,000 each person \$1,000,000 each occurrence \$2,000,000 aggregate
(2) Property Damage Liability	\$1,000,000 each occurrence
(c) Excess Umbrella Liability	
Combined Single Limit Bodily Injury and/or Property Damage	\$10,000,000 each occurrence \$10,000,000 aggregate
(d) Employer Liability Insurance	\$500,000 each occurrence

These coverages and limits are to be considered minimum requirements under this agreement and shall in no way limit the liability or obligations of the Proposer under this agreement. The Proposer shall cause all policies to include an endorsement to the effect that the policies shall not be modified, canceled or terminated without thirty (30) days prior written notice to the School District Superintendent or his/her designee, as well as the requirement that the insurance carrier immediately notify the School District when fifty percent (50%) of any aggregate limits on any of the above-required policies have been reached. In case of termination, the Proposer shall provide evidence of new insurance at the earliest possible date, but not later than ten (10) days prior to the termination of the original policy. Proposer shall provide said insurance before the effective date of this Agreement and prior to the beginning of school fiscal year. Moreover, the Proposer agrees to notify the School District Superintendent or his/her designee immediately of any claim arising pursuant to said policies.

The Proposer shall not commence operations under this agreement until the Proposer has obtained all insurance stated in these requirements, all insurance has been reviewed by the School District, and Certificates of such insurance have been made available to the School District.

5. Building List:

ANGUS ELEMENTARY	3180	Hein, Sterling Hts., MI 48310
BLACK ELEMENTARY	14100	Heritage, Sterling Hts., MI 48312
CROMIE ELEMENTARY	29797	Gilbert, Warren, MI 48093
GREEN ACRES ELEMENTARY	4655	Holmes, Warren, MI 48092
HARWOOD ELEMENTARY	4900	Southlawn, Sterling Hts., MI 48310
HOLDEN ELEMENTARY	37565	Calka, Sterling Hts., MI 48310
JEFFERSON ELEMENTARY	37555	Carol, Sterling Hts., MI 48310
LEAN ELEMENTARY	2825	Girard, Warren, MI 48092
SIERSMA ELEMENTARY	3100	Donna, Warren, MI 48091
SUSICK ELEMENTARY	2200	Castleton, Troy, MI 48083
WILDE ELEMENTARY	32343	Bunert, Warren, MI 48088
WILLOW WOODS ELEMENTARY	11001	Daniel, Sterling Hts., MI 48312
WILKERSON ELEMENTARY	12100	Masonic, Warren, MI 48093
BEER MIDDLE	3200	Martin, Warren, MI 48092
CARLETON MIDDLE	8900	Fifteen Mile, Sterling Hts., MI 48312
CARTER MIDDLE	12000	Masonic, Warren, MI 48093
GRISSOM MIDDLE	35701	Ryan, Sterling Hts., MI 48310
COUSINO HIGH	30333	Hoover, Warren, MI 48093
STERLING HTS. HIGH	12901	Fifteen Mile, Sterling Hts., MI 48312
WARREN MOTT HIGH	3131	Twelve Mile, Warren, MI 48092
ADMINISTRATION BLDG	31300	Anita, Warren, MI 48093
BUTCHER EDUCATION CTR	27500	Cosgrove, Warren, MI 48092
CAREER PREP CTR	12200	Fifteen Mile, Sterling Hts., MI 48312
HATHERLY ED. CENTER	35201	Davison, Sterling Hts., MI 48310

**Warren Consolidated Schools
District HVAC Boiler Preventive Maintenance and Repair Services**

Please return the following with your proposal:

Company Name

Contact Name and Phone Number

CSD-1 Boiler Inspections 24-buildings, completed by August 31, 2026 \$_____ Total

24-month Preventive Maintenance Service, 61 Aerco Boilers \$_____ Total,
Completed by August 31, 2026.

12-month Preventive Maintenance Service, 3 Harsco Boilers \$_____ Total,
Completed by August 31, 2026.

Aerco 24-month OEM maintenance kit \$_____ /each

Harsco annual OEM maintenance kit \$_____ /each

Repair Services

Service Repair Hourly	\$ _____
Overtime Hour Rate	\$ _____
Truck/Other Charges/per visit	\$ _____

BOILER INFORMATION AND BUILDINGS

EXHIBIT A

<u>Tag</u>	<u>Building</u>	<u>Capacity</u>	<u>Customer</u> <u>Equip ID</u>	<u>Location</u>	<u>Mfr.</u>	<u>Model Number</u>	<u>QR ID</u>	<u>Install date</u>
BOILER - 1973	Hatherly Educational Center	2500 MBH	B2	Boiler room	Aerco	BMK 2500	WCSD - 1973	1/1/2018
Boiler - 1972	Hatherly Educational Center	2500 MBH	B-1	Boiler room	Aerco	BMK 2500	WCSD - 1972	1/1/2018
BOILER - 1902	Willow Woods Elementary School	3000 MBH	BOILER 2	Boiler room	Aerco	BMK 3000	WCSD - 1902	1/1/2018
BOILER - 1901	Willow Woods Elementary School	3000 MBH	BOILER 1	Boiler room	Aerco	BMK 3000	WCSD - 1901	1/1/2018
Boiler - 1813	Black Elementary School	2500 MBH	B2	Boiler room	Aerco	BMK 2500	WCSD - 1813	1/1/2018
Boiler - 1812	Black Elementary School	2500 MBH	B1	Boiler room	Aerco	BMK 2500	WCSD - 1812	1/1/2018
BOILER - 1774	Susick Elementary School	2500 MBH	B2	Boiler room	Aerco	BMK 2500	WCSD - 1774	1/1/2018
BOILER - 1773	Susick Elementary School	2500 MBH	B1	Boiler room	Aerco	BMK 2500	WCSD - 1773	1/1/2018
BOILER - 1677	Carleton Middle School	3000 MBH	B3	Boiler room	Aerco	BMK 3000	WCSD - 1677	1/1/2018
BOILER - 1676	Carleton Middle School	3000 MBH	B2	Boiler room	Aerco	BMK 3000	WCSD - 1676	1/1/2018
BOILER - 1675	Carleton Middle School	3000 MBH	B1	Boiler room	Aerco	BMK 3000	WCSD - 1675	1/1/2018
Boiler - 1515	Sterling Heights High School	6000 MBH	B3	Boiler room	Aerco	BMK6000	WCSD - 1515	1/1/2024
BOILER - 1514	Sterling Heights High School	6000 MBH	B2	Boiler room	Aerco	BMK6000	WCSD - 1514	1/1/2024
Boiler - 1513	Sterling Heights High School	6000 MBH	B1	Boiler room	Aerco	BMK6000	WCSD - 1513	1/1/2024
BOILER - 1508	Holden Elementary School	2500 MBH	B-2	Boiler room	Aerco	BMK 2500	WCSD - 1508	1/1/2018
BOILER - 1507	Holden Elementary School	2500 MBH	B-1	Boiler room	Aerco	BMK 2500	WCSD - 1507	1/1/2018
BOILER - 1421	Jefferson Elementary School	2500 MBH	B-2	Boiler room	Aerco	BMK 2500	WCSD - 1421	1/1/2018
BOILER - 1420	Jefferson Elementary School	2500 MBH	B-1	Boiler room	Aerco	BMK 2500	WCSD - 1420	1/1/2018
BOILER - 0880	Career Prep Center	500 MBH	B-1	Boiler room	Aerco	AM 399B HXV	WCSD - 0880	1/1/2019
Boiler - 0499	Career Prep Center	2500 MBH	B-1	Boiler room	Aerco	BMK 2500	WCSD - 0499	1/1/2018
BOILER - 0825	Grisson Middle School	3000 MBH	B3	Boiler room	Aerco	BMK 3000	WCSD - 0825	1/1/2022
BOILER - 0824	Grisson Middle School	3000 MBH	B2	Boiler room	Aerco	BMK 3000	WCSD - 0824	1/1/2022
BOILER - 0823	Grisson Middle School	3000 MBH	B1	Boiler room	Aerco	BMK 3000	WCSD - 0823	1/1/2022
BOILER - 0755	Warren Mott High School	1500 MBH	Boiler	Boiler room	Aerco	UKN	WCSD - 0755	1/1/2010
Boiler - 0749	Warren Mott High School	2000 MBH	Boiler B-6	Boiler room	Benchmark	BMK-20-LowNOx	WCSD - 0749	1/1/2010
Boiler - 0748	Warren Mott High School	3000 MBH	Boiler B-5	Boiler room	Aerco	BMK 3000	WCSD - 0748	1/1/2024
BOILER - 0747	Warren Mott High School	2000 MBH	B4	Boiler room	Aerco	BMK-20-LowNOx	WCSD - 0747	1/1/2010
BOILER - 0745	Warren Mott High School	2000 MBH	B3	Boiler room	Aerco	BMK-20-LowNOx	WCSD - 0745	1/1/2010
BOILER - 0744	Warren Mott High School	2000 MBH	B2	Boiler room	Aerco	BMK-20-LowNOx	WCSD - 0744	1/1/2010
Boiler - 0743	Warren Mott High School	3000 MBH	Boiler B-1	Boiler room	Aerco	BMK 3000	WCSD - 0743	1/1/2020
BOILER - 0684	Siersma Elementary School	2000 MBH	B-2	Boiler room	Aerco	BMK2000	WCSD - 0684	1/1/2017
Boiler - 0683	Siersma Elementary School	2000 MBH	B-1	Boiler room	Aerco	BMK2000	WCSD - 0683	1/1/2017
BOILER - 0623	Carter Middle School	3000 MBH	Boiler 3	Boiler room	Harsco	C-3000	WCSD - 0623	1/1/2011
Boiler - 0622	Carter Middle School	3000 MBH	Boiler 2	Boiler room	Harsco	C-3000	WCSD - 0622	1/1/2011
BOILER - 0620	Carter Middle School	3000 MBH	Boiler 1	Boiler room	Harsco	C-3000	WCSD - 0620	1/1/2011
BOILER - 0582	Wilde Elementary School	2000 MBH	B-3	Boiler room	Aerco	BMK2000	WCSD - 0582	1/1/2017
BOILER - 0581	Wilde Elementary School	2000 MBH	B-2	Boiler room	Aerco	BMK2000	WCSD - 0581	1/1/2017
Boiler - 0576	Wilde Elementary School	2000 MBH	B1	Boiler room	Aerco	BMK2000	WCSD - 0576	1/1/2017
BOILER - 0501	Butcher	2500 MBH	B-3	Boiler room	Aerco	BMK 2500	WCSD - 0501	1/1/2018
BOILER - 0500	Butcher	2500 MBH	B2	Boiler room	Aerco	BMK 2500	WCSD - 0500	1/1/2018
BOILER - 0422	Beer Middle School	3000 MBH	B3	Boiler room	Aerco	BMK 3000	WCSD - 0422	1/1/2018
Boiler - 0421	Beer Middle School	3000 MBH	B2	Boiler room	Aerco	BMK 3000	WCSD - 0421	1/1/2018
BOILER - 0420	Beer Middle School	3000 MBH	B1	Boiler room	Aerco	BMK 3000	WCSD - 0420	1/1/2018
Boiler - 0369	Wilkerson Elementary School	2500 MBH	B-2	Boiler room	Aerco	BMK 2500	WCSD - 0369	1/1/2018
Boiler - 0368	Wilkerson Elementary School	2500 MBH	B-1	Boiler room	Aerco	BMK 2500	WCSD - 0368	1/1/2020
BOILER - 0300	Cousino High School	3000 MBH	B-4	Boiler room	Aerco	BMK 3000	WCSD - 0300	1/1/2020
BOILER - 0299	Cousino High School	3000 MBH	B-3	Boiler room	Aerco	BMK 3000	WCSD - 0299	1/1/2020
Boiler - 0298	Cousino High School	3000 MBH	B-2	Boiler room	Aerco	BMK 3000	WCSD - 0298	1/1/2020
Boiler - 0297	Cousino High School	3000 MBH	B-1	Boiler room	Aerco	BMK 3000	WCSD - 0297	1/1/2020
Boiler - 0227	Cromie Elementary School	2000 MBH	B-3	Boiler room	Aerco	BMK2000	WCSD - 0227	1/1/2020
Boiler - 0226	Cromie Elementary School	2000 MBH	B-2	Boiler room	Aerco	BMK2000	WCSD - 0226	1/1/2020
BOILER - 0225	Cromie Elementary School	2000 MBH	B-1	Boiler room	Aerco	BMK2000	WCSD - 0225	1/1/2020
Boiler - 0185	Administration	2000 MBH	B-2	Boiler room	Aerco	BMK2000	WCSD - 0185	1/1/2020
BOILER - 0184	Administration	2000 MBH	B-1	Boiler room	Aerco	BMK2000	WCSD - 0184	1/1/2020
BOILER - 0151	Lean Elementary School	2000 MBH	B-3	Boiler room	Aerco	BMK2000	WCSD - 0151	1/1/2020
BOILER - 0150	Lean Elementary School	2000 MBH	B-2	Boiler room	Aerco	BMK2000	WCSD - 0150	1/1/2020
Boiler - 0149	Lean Elementary School	2000 MBH	B-1	Boiler room	Aerco	BMK2000	WCSD - 0149	1/1/2020
BOILER - 0137	Green Acres Elementary School	2000 MBH	B-3	Boiler room	Aerco	BMK2000	WCSD - 0137	1/1/2020
BOILER - 0136	Green Acres Elementary School	2000 MBH	B-2	Boiler room	Aerco	BMK2000	WCSD - 0136	1/1/2020
BOILER - 0135	Green Acres Elementary School	2000 MBH	B-1	Boiler room	Aerco	BMK2000	WCSD - 0135	1/1/2020
BOILER - 0108	Angus Elementary School	3000 MBH	B2	Boiler room	Aerco	BMK 3000	WCSD - 0108	1/1/2020
BOILER - 0107	Angus Elementary School	3000 MBH	B1	Boiler room	Aerco	BMK 3000	WCSD - 0107	1/1/2020
BOILER - 0081	Harwood Elementary School	3000 MBH	B2	Boiler room	Aerco	BMK 3000	WCSD - 0081	1/1/2020
Boiler - 0080	Harwood Elementary School	3000 MBH	B1	Boiler room	Aerco	BMK 3000	WCSD - 0080	1/1/2020



SECTION 4: MAINTENANCE

4.1 MAINTENANCE SCHEDULE

The unit requires regular routine maintenance to keep up efficiency and reliability. For best operation and life of the unit, routine maintenance procedures should be performed in the time periods specified in Table 4-1. For a complete inspection check list see ASME CSD-1 chart.

WARNING!

Prior to servicing ensure that the following guidelines are strictly observed:

- Disconnect the AC power supply by turning off the service switch and ac supply circuit breaker.
- Shut off the gas supply at the manual shut-off valve provided with the unit
- Allow the unit to cool to a safe water temperature to prevent burning or scalding

TABLE 4-1: Maintenance Schedule					
SEC	ITEM	6 MOS.	12 MOS.	24 MOS.	LABOR TIME
4.2	Pilot Burner Ignitor Rod FRU Kit (P/N 58084)	*Inspect	Inspect, replace if necessary	Replace	15 mins.
4.3	Main Flame Detector FRU Kit (P/N 65182)	*Inspect	Inspect, replace if necessary	Replace	15 mins.
4.4	Lean O ₂ Sensor (P/N 61026)	*Inspect	Inspect	-	15 mins.
4.5	Combustion Calibration & pilot regulator adjustment	*Check	Check	-	1 hr.
4.6	Testing of Safety Devices	-	See ASME CSD-1 Chart	-	45 mins.
4.7	Burner	-	-	Inspect	2 hrs.
4.9	Condensate Drain Trap	*Inspect	Inspect, Clean & Replace Gaskets	Inspect, Clean & Replace Gaskets	30 mins.
4.10	Air Filter (replace P/N 88014), Cleaning Kit (58041)	-	Clean	Replace	15 mins.

* Only performed after initial 6 month period after initial startup.

The following maintenance kits are available through your local AERCO Sales Representative:

Kit	Kit P/N	Description
12 Month service	58025-11	Services Pilot Burner, Flame Rod & Condensate trap
24-Month Waterside/ Fireside service	58025-12	58025-11 plus: Burner, LWCO, Air Pump Filter & Air Filter replacement
	58025-15	Same as 58025-12 except clean (not replace) Air Filter
24-Month Waterside service	58025-14	58025-11 plus: LWCO, replace Air Pump Filter & Air Filter
	58025-16	Same as 58025-14 except clean (not replace) Air Filter



6.1.3 Monthly Preventative Maintenance

1. Press the "Info" button on the NURO® touchscreen to load the Information Screen and scroll down to view the flame signal measured in Volts. Typical flame signals should read between 20-50V. If the flame signal is below 10V, the UV scanner may need to be replaced.
2. Test the low water level cut-off. Refer to 3.10.2 (if applicable).
3. Test the manual reset high-temp limit. Refer to 3.10.3.
4. Test the low gas pressure switch. Refer to 3.10.4.
5. Test operating temperature controls by reducing or increasing temperature settings as necessary to check burner operation.
6. Check the combustion chamber drain piping for leaks or obstructions.

NOTICE! Installation and service must be performed by a qualified installer or service agency that has been trained on the appliance.

6.1.4 Semi-Annually

In addition to the recommended monthly service:

1. Clean burner of any accumulated dust or lint. Refer to Section 6.2.
2. Inspect burner for any signs of deterioration or corrosion. Replace immediately if deterioration or corrosion is evident.
3. Check the pH level of the system fluid. Verify the pH is in accordance with Appendix C – Water Quality Standards Quality Standards for Hydronic Boilers in Multi-Metal Systems
4. Inspect and clean the condensate system and check for leaks. If a condensate neutralization kit is present, open the lid and inspect the limestone rocks. If they are absent or have been significantly worn away, replace them with new limestone rocks. Use high-calcium (or pure) limestone.

6.1.5 Annually

In addition to the recommended monthly and semi-annual service:

1. Inspect and clean the inlet screen of any accumulated dust or lint.
2. Check burner and clean off any soot or foreign material that may have accumulated. Refer to Section 6.2. Check for corrosion of the burner and its parts. If there is evidence of deterioration or corrosion, replace immediately. Inspect combustion chamber when the burner is removed for inspection. Note any signs of deterioration. Clean as necessary.
3. Inspect and clean heat exchanger. Remove the various covers to inspect the flue gas passageways. Clean the combustion side casting pins by flushing with clean water and blowing dry with compressed air. Do not use any cleaning agents or solvents. Do not use soap. A soft nylon brush may be used in accessible areas. Be sure to inspect condensate collection pan that is the lowest part of the heat exchanger.
4. Replace the ignition electrode and gasket.
5. Drain and flush the water side of the heat exchanger as required (separate from system flush) using clean water only.



6. Inspect and clean the condensate system and check for leaks. If a condensate neutralization kit is present, open the lid and inspect the limestone rocks. If they are absent or have been significantly worn away, replace them with new limestone rocks. Use high-calcium (or pure) limestone.
7. Examine the venting system. Refer to the vent manufacturer's instructions for requirements in addition to those listed below.
 - a. Check all joints and pipe connections for tightness.
 - b. Check pipe for corrosion or deterioration. If any piping needs replacing, do so immediately.
 - c. Inspect and clean any screens in the vent terminal.
8. Qualified service personnel should thoroughly inspect the heating system and correct any problems prior to re-starting the boiler.
9. Qualified service personnel should thoroughly inspect the heating system and correct any problems prior to re-starting the boiler.
10. Perform combustion analysis and readjust as necessary according to the Section 3.11 combustion settings table. It is recommended that a copy of this report is filed for future reference.
11. Perform a leak test of the gas valves in accordance with the manufacturer's instructions.

6.2 Cleaning the Burner & Combustion Chamber

Patterson-Kelley recommends cleaning burner and combustion chamber once annually:

6.2.1 MACH C-1500H/C-1500T & C-2000H/C-2000T

1. Lockout/tagout gas supply to the boiler.
2. Lockout/tagout electrical power to the boiler.
3. Disconnect the condensate neutralization tank piping in order to install a temporary drain hose into the condensate drain. Run the open end of this hose to a nearby floor drain.
4. Open the front and right side doors of the boiler.
5. Protect the electrical and control components from exposure to water with towels, a nylon tarp, or plastic wrap.
6. Remove the wires/cables from the ignition electrode and flame/ionization rod.
7. Remove the power and signal cables from the combustion blower.
8. Locate the angled burner hood casting located directly in front of the burner hole. Refer to Section 7.3 for an illustration of these components.
9. Remove the four M12 flanged nuts connecting the angled burner hood casting to the four burner studs.
10. Remove the six M8 screws connecting the combustion blower flange to the air/gas mixer head flange.
11. Gently remove the combustion blower and angled burner hood casting out the front door.
12. Gently remove the burner gasket and set aside. If the gasket is torn or damaged, discard this gasket.
13. Carefully remove the burner from the boiler and clean with pressurized water.