



ALASKA ENERGY AUTHORITY

PROCUREMENT DEPARTMENT
813 W Northern Lights Blvd
Anchorage, AK 99503

RETURN BY EMAIL
AEAProcurement@akenergyauthority.org

REQUEST FOR QUOTATION

RFQ NO: **24137**
Quotations due on/before
2:00 PM Local Time
6/3/2024

Tuluksak Power Plant Radiator Repair

Page 1 of 4 Date: 5/23/24

CONTRACTOR NOTICE (This is NOT a Purchase Order)

This is an **informal quotation** that will not be read at public opening. The information may be publicly reviewed after award. The terms and conditions should be reviewed and understood before preparing a quotation.

Fill out and sign the bottom portion of this page and return the quotation by the above time and date to: AEAProcurement@akenergyauthority.org. Please reference the RFQ number on the SUBJECT of the email.

PROJECT LOCATION:
Tuluksak Power Plant
Tuluksak, Alaska

PROCUREMENT OFFICER:
Rachael Holly (907) 771-3055
rholly@akenergyauthority.org

This Request for Quotation (RFQ) is for an experienced diesel engine-generator service provider, hereinafter referred to as contractor, to perform Work in the diesel electric power plant in Tuluksak, Alaska. The Work shall consist primarily of removing two failed radiator core assemblies, replacing the cores with new cores, and reinstalling the repaired core assemblies, along with associated tasks as described in Appendix A, Detailed Project Description.

The Engineer's Estimate for the Work is between \$50,000 and \$100,000.

All questions relating to bidding procedures should be directed to:
Rachael Holly, Contract Officer, (907) 771-3055 rholly@akenergyauthority.org

All questions relating to technical aspects of the project should be directed to:
Dawn Molina, Project Manager, (907) 771-3904 DMolina@akenergyauthority.org or
Brian Gray, Gray Stassel Engineering, (907) 244-8716 brian@gse.engineering

Provide a lump sum fixed price quote in U.S. dollars where indicated below. The cost shall include all labor, materials, supervision, equipment, tools, transportation, quality control, and supplies required to complete the work as described in this RFQ.

The proposed schedule for the Work is described in Appendix A, Detailed Project Description. Provide a firm completion date where indicated below.

THIS SECTION MUST BE COMPLETED BY CONTRACTOR

Completion is desired no later than July 15, 2024.
The Work shall be substantially complete no later than _____

Lump sum price for completion of the Work _____

Company Name	Address	City	St	ZIP Code	Phone Number
Alaska Business License No.	Tax I.D. No.				
_____ Signature		_____ Date		_____ Typed Name and Title	

**INSTRUCTIONS TO BIDDERS
TERMS AND CONDITIONS**

1. REQUEST FOR QUOTATION (RFQ) REVIEW: Offerors shall carefully review this RFQ for defects and questionable or objectionable material. Offerors' comments concerning defects and questionable or objectionable material in the RFQ must be made in writing and received by the purchasing authority before the date and time set for receipt of quotes. This will allow time for an amendment to be issued if one is required. It will also help prevent the opening of a defective quote, upon which award cannot be made, and the resultant exposure of offerors' prices. Offerors' original comments should be sent to the purchasing authority listed on the front of this RFQ.

2. QUOTATION FORMS: Offerors shall use this and attached forms in submitting quotes. A photocopied quote may be submitted.

3. SUBMISSION: Quotations shall be signed where applicable and received at the designated Purchasing Office no later than as indicated.

4. QUOTE REJECTION: The State reserves the right to reject any or all quotes, combinations of items, or lot(s), and to waive defects or minor informalities.

5. EXTENSION OF PRICES: In case of error in the extension of prices in the quote, the unit prices will govern; in a lot bid, the lot prices will govern. Negligence by the vendor in preparing the quotation confers no right for the withdrawal of the quotation after it has been opened.

6. ALASKA PROCUREMENT CODE: 3 AAC 109 and 2 AAC Ch. 12 are made a part of this document as if fully set forth herein. Note that 3 AAC 109 and 2 AAC Ch. 12 are available at most public libraries and legislative information offices; and both are available for review at Alaska State Purchasing Offices.

7. PRICES: The offeror shall state prices in the units of issue on this RFQ. Prices quoted for commodities must be in U.S. funds and include applicable federal duty, brokerage fees, packaging, and transportation cost to the FOB point so that upon transfer of title the commodity can be utilized without further cost. Prices quoted for services must be quoted in U.S. funds and include applicable federal duty, brokerage fee, packaging, and transportation cost so that the services can be provided without further cost. Prices quoted must be exclusive of federal, state, and local taxes. If the offeror believes that certain taxes are payable by the State, the offeror may list such taxes separately, directly below the bid price for the affected item. The State is exempt from Federal Excise Tax except the following:

- Coal - Internal Revenue Code of 1986 (IRC), Section 4121 - on the purchase of coal;
- "Gas Guzzler" - IRC, Section 4064 - on the purchase of low m.p.g. automobiles, except that police and other emergency type vehicles are not subject to the tax;
- Air Cargo - IRC, Section 4271 - on the purchase of property transportation services by air;
- Air Passenger - IRC, Section 4261 - on the purchase of passenger transportation services by air carriers;
- Leaking Underground Storage Tank Trust Fund Tax (LUST) - IRC, Section 4081 - on the purchase of Aviation gasoline, Diesel Fuel, Gasoline, and Kerosene.

8. PAYMENT FOR STATE PURCHASES: Payment for agreements under \$500,000 for the undisputed purchase of goods or services provided to a State agency, will be made within 30 days of the receipt of a proper billing or the delivery of the goods or services to the location(s) specified in the agreement, whichever is later. A late payment is subject to 1.5% interest per month on the unpaid balance. Interest will not be paid if there is a dispute or if there is an agreement which establishes a lower interest rate or precludes the charging of interest.

9. PAYMENT DISCOUNT: Discounts for prompt payment will not be considered in evaluating the price you quote. However, the State shall be entitled to take advantage of any payment discount(s) offered by the vendor provided payment is made within the discount period. Payment discount periods will be computed from the date of receipt of the commodities or services and/or a correct invoice, whichever is later. Unless freight and other charges are itemized, any discount provided will be taken on full amount of invoice.

10. VENDOR TAX ID NUMBER: If goods or services procured through this RFQ are of a type that is required to be included on a Miscellaneous Tax Statement, as described in the Internal Revenue Code, a valid tax identification number must be provided to the State of Alaska before payment will be made.

11. INDEMNIFICATION: The Contractor shall indemnify, hold harmless, and defend the contracting agency from and against any claim of, or liability for error, omission or negligent act of the Contractor under this agreement. The Contractor shall not be required to indemnify the contracting agency for a claim of, or liability for, the independent negligence of the contracting agency. If there is a claim of, or liability for, the joint negligent error or omission of the Contractor and the independent negligence of the Contracting agency, the indemnification and hold harmless obligation shall be apportioned on a comparative fault basis. "Contractor" and "Contracting agency", as used within this and the following article, include the employees, agents and other contractors who are directly responsible, respectively, to each. The term "independent negligence" is negligence other than in the Contracting agency's selection, administration, monitoring, or controlling of the Contractor and in approving or accepting the Contractor's work.

12. SEVERABILITY: If any provision of this contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected; and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

13. TITLE: Title passes to the State for each item at FOB destination.

14. FILING A PROTEST: An offeror shall attempt to informally resolve a dispute with the procurement officer regarding a small procurement. If the attempt is unsuccessful, the vendor may protest the solicitation or the award of a small procurement contract under 3 AAC 109 and 2 AAC

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Ch. 12. The protest must be filed in writing with the commissioner of the purchasing agency or the commissioner's designee and include the following information: (1) the name, address, and telephone number of the protester; (2) the signature of the protester or the protester's representative; (3) identification of the contracting agency and the solicitation or contract at issue; (4) a detailed statement of the legal and factual grounds of the protest, including copies of relevant documents; and (5) the form of relief requested. The protester must file a copy of the protest with the procurement officer for the purchasing agency. Protests will be treated in accordance with 3 AAC 109 and 2 AAC Ch. 12.

15. COMPLIANCE: In the performance of a contract that results from this RFQ, the contractor must comply with all applicable federal, state, and borough regulations, codes, and laws; and be liable for all required insurance, licenses, permits and bonds; and pay all applicable federal, state, and borough taxes.

16. SUITABLE MATERIALS, ETC.: Unless otherwise specified, all materials, supplies or equipment offered by an offeror shall be new, unused, and of the latest edition, version, model or crop and of recent manufacture.

17. SPECIFICATIONS: Unless otherwise specified in the RFQ, product brand names or model numbers are examples of the type and quality of product required, and are not statements of preference. If the specifications describing an item conflict with a brand name or model number describing the item, the specifications govern. Reference to brand name or number does not preclude an offer of a comparable or better product, if full specifications and descriptive literature are provided for the product. Failure to provide such specifications and descriptive literature may be cause for rejection of the offer.

18. FIRM OFFER: For the purpose of award, offers made in accordance with this RFQ must be good and firm for a period of ninety (90) days from the date of quote opening.

19. QUOTE PREPARATION COSTS: The State is not liable for any costs incurred by the offeror in quote preparation.

20. CONSOLIDATION OF AWARDS: Due to high administrative costs associated with processing of purchase orders, a single low quote of \$50 or less may, at the discretion of the State, be awarded to the next low offeror receiving other awards for consolidation purposes. This paragraph is not subject to the protest terms enumerated in "FILING A PROTEST" above.

21. CONTRACT FUNDING: Offerors are advised that funds are available for the initial purchase and/or the first term of the contract. Payment and performance obligations for succeeding purchases and/or additional terms of the contract are subject to the availability and appropriation of funds.

22. CONFLICT OF INTEREST: An officer or employee of the State of Alaska may not seek to acquire, be a party to, or possess a financial interest in, this contract if (1) the officer or employee is an employee of the administrative unit that supervises the award of this contract; or (2) the officer or employee has the power to take or withhold official action so as to affect the award or execution of the contract.

23. ASSIGNMENT(S): Assignment of rights, duties, or payments under a contract resulting from this RFQ is not permitted unless authorized in writing by the procurement officer of the contracting agency. Quotes that are conditioned upon the State's approval of an assignment will be rejected as nonresponsive.

24. SUBCONTRACTOR(S): Within five (5) working days of notice from the state, the apparent low bidder must submit a list of the subcontractors that will be used in the performance of the contract. The list must include the name of each subcontractor and the location of the place of business for each subcontractor and evidence of each subcontractor's valid Alaska business license.

25. FORCE MAJEURE (Impossibility to perform): The parties to a contract resulting from this RFQ are not liable for the consequences of any failure to perform, or default in performing, any of its obligations under the contract, if that failure or default is caused by any unforeseeable Force Majeure, beyond the control of, and without the fault or negligence of, the respective party. For the purposes of this Agreement, Force Majeure will mean war (whether declared or not); revolution; invasion; insurrection; riot; civil commotion; sabotage; military or usurped power; lightning; explosion; fire; storm; drought; flood; earthquake; epidemic; quarantine; strikes; acts or restraints of governmental authorities affecting the project or directly or indirectly prohibiting or restricting the furnishing or use of materials or labor required; inability to secure materials, machinery, equipment or labor because of priority, allocation or other regulations of any governmental authorities.

26. LATE QUOTES: Late quotes are quotes received after the time and date set for receipt of the quotes. Late quotes will not be accepted.

27. CONTRACT EXTENSION: Unless otherwise provided in this RFQ, the State and the successful offeror/contractor agree: (1) that any holding over of the contract excluding any exercised renewal options, will be considered as a month-to-month extension, and all other terms and conditions shall remain in full force and effect and (2) to provide written notice to the other party of the intent to cancel such month-to-month extension at least thirty (30) days before the desired date of cancellation.

28. DEFAULT: In case of default by the contractor, for any reason whatsoever, the State of Alaska may procure the goods or services from another source and hold the contractor responsible for any resulting excess cost and may seek other remedies under law or equity.

29. DISPUTES: If a contractor has a claim arising in connection with a contract resulting from this RFQ that it cannot resolve with the State by mutual agreement, it shall pursue a claim, if at all, in accordance with the provisions of 3 AAC 109 and 2 AAC Ch. 12.

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- 30. GOVERNING LAW; FORUM SELECTION:** A contract resulting from this RFQ is governed by the laws of the State of Alaska. To the extent not otherwise governed by section 29 of these Standard Terms and Conditions, any claim concerning the contract shall be brought only in the Superior Court of the State of Alaska and not elsewhere.
- 31. CONSUMER ELECTRICAL PRODUCT:** AS 45.45.910 requires that "...a person may not sell, offer to sell, or otherwise transfer in the course of the person's business a consumer electrical product that is manufactured after August 14, 1990, unless the product is clearly marked as being listed by an approved third party certification program." Electrical consumer products manufactured before August 14, 1990, must either be clearly marked as being third party certified or be marked with a warning label that complies with AS 45.45.910(e). Even exempted electrical products must be marked with the warning label. By signature on this quote the offeror certifies that the product offered is in compliance with the law. A list of approved third party certifiers, warning labels and additional information is available from: Department of Labor, Labor Standards & Safety Division, Mechanical Inspection Section, P.O. Box 107020, Anchorage, Alaska 99510-7020, (907)269-4925.
- 32. CONTINUING OBLIGATION OF CONTRACTOR:** Notwithstanding the expiration date of a contract resulting from this RFQ, the contractor is obligated to fulfill its responsibilities until warranty, guarantee, maintenance and parts availability requirements have completely expired.
- 33. ORDER DOCUMENTS:** Except as specifically allowed under this RFQ, an ordering agency will not sign any vendor contract. The State is not bound by a vendor contract signed by a person who is not specifically authorized to sign for the State under this RFQ. The State of Alaska Purchase Order, Contract Award and Delivery Order are the only order documents that may be used to place orders against the contract(s) resulting from this RFQ.
- 34. BILLING INSTRUCTIONS:** Invoices must be billed to the ordering agency's address shown on the individual Purchase Order, Contract Award or Delivery Order. The ordering agency will make payment after it receives the merchandise or service and the invoice. Questions concerning payment must be addressed to the ordering agency.
- 35. OFFERORS WITH DISABILITIES:** The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Individuals with disabilities who may need auxiliary aids, services, and/or special modifications to participate in this procurement should contact the procurement officer named on the cover page of this RFQ as soon as possible, but no later than the date and time quotations are due to make any necessary arrangements.
- 36. COMPLIANCE WITH ADA:** By signature of their quote the bidder certifies that they comply with the Americans with Disabilities Act of 1990 and the regulations issued thereunder by the federal government. Services or activities furnished to the general public on behalf of the State must be fully accessible. This is intended to ensure that agencies are in accordance with 28 CFR Part 35 Section 35.130 and that services, programs or activities furnished to the public through a contract do not subject qualified individuals with a disability to discrimination based on the disability.
- 37. FEDERAL ASSURANCES:** Because this contract is funded with federal funds, the provisions of Appendix B, Federal Assurances, shall apply. When submitting the quote, the vendor shall include the Debarment Certificate, page 4 of Appendix B.
- 38. INSPECTIONS AND REPORTS:** The Authority may inspect, in the manner and at reasonable times it considers appropriate, all of the contractor's facilities and activities under this contract. The contractor shall make progress and other reports in the manner and at the times the Authority reasonably requires.
- 39. NO ADDITIONAL WORK OR MATERIAL:** No claim for additional supplies or services, not specifically provided in this contract, performed or furnished by the contractor, will be allowed, nor may the contractor do any work or furnish any material not covered by the contract unless the work or material is ordered in writing by the Contracting Officer.
- 40. CONFLICTING PROVISIONS:** Unless specifically amended and approved by the Department of Law, the terms of this contract supersede any provisions the contractor may seek to add. The contractor may not add additional or different terms to this contract; AS 45.02.207(b)(1). The contractor specifically acknowledges and agrees that, among other things, provisions in any documents it sees to append hereto that purport to (1) waive the State of Alaska's sovereign immunity, (2) impose indemnification obligations on the Authority, or (3) seek to limit liability of the contractor for acts of contractor negligence, are expressly superseded by this contract and are void.

I. Background:

The Tuluksak Traditional Power Utility (Utility) operates a power plant that provides prime power to the community of Tuluksak using diesel powered engine-generators. The power plant was constructed new in 2003 and has had several repair projects performed over the past 20 years. The Alaska Energy Authority (AEA) has plans for a major upgrade project in the future.

The existing glycol radiators have been leaking for some time but recently the leaking increased to the point that the Utility had to shut down the power plant and run a standby generator to power the community. The standby generator is undersized for the present load so power rationing is required. The present operation is not sustainable so there is an urgent need to get the power plant back on line. The purpose of this project is to rebuild the existing radiators, replace valves, charge with new glycol, and place the power plant cooling system back in service.

II. Project Schedule:

June 3, 2024	Bids due.
June 10, 2024	Notice of Contract Award.
July 15, 2024	Substantial Completion. Note that this is the desired completion date. Provide a firm completion date in the Bid Response based on the above listed schedule.

III. Scope of Work:

Drawings M1 and M2 are included in Appendix B and are hereby incorporated into this RFQ. These Drawings provide additional detail for the Work involved in this project.

The intent of the Contract is to provide for the construction and completion of every detail of work described in the RFQ. The Contractor shall furnish all labor, materials, supervision, equipment, tools, transportation, quality control, and supplies required to complete the work in accordance with the RFQ. The Work shall include but not be limited to the following tasks:

- 1) Prior to beginning construction, provide a schedule to AEA. The schedule shall include the estimated date for substantial completion so that AEA can schedule staff travel for inspection, testing, and commissioning.
- 2) Provide daily progress reports to AEA via email. Reports shall include a brief summary of work completed along with representative photos.
- 3) Provide the following materials delivered to Tuluksak:
 - a) Two each clean 55 gallon drums for draining and storing existing coolant.
 - b) Three each 55 gallon drums of new extended life ethylene glycol coolant pre-mixed to a ratio of 50% glycol and 50% water.
 - c) Six each 3" ANSI 150# flange gaskets for radiator flex connections.
 - d) One each replacement radiator pressure cap, 12 PSIG minimum, 15 PSIG maximum.
- 4) Mobilize a crew to Tuluksak with tools, equipment, materials, and supplies as needed for execution of the work.

- 5) Prior to beginning work on the coolant system verify that the community is running on the standby generator. Check with the local operator on the status of the standby generator. If there are concerns about the ability of the standby generator to operate the community for the next month, report the findings to AEA immediately.
- 6) With power plant off line, drain all coolant from the system including the engines and all low points. Place the coolant into the new drums and turn over to the utility.
- 7) Disconnect the piping and electrical, disassemble the two radiators, and remove the complete core assemblies including tanks and side panels. Note the following:
 - a) The existing radiators are Young MWC 66D5FR with 5 HP motors.
 - b) The radiators are each connected to the piping with 3 each 3" FPT by 3" ANSI 150# floating flange flex connectors.
 - c) The radiators are installed on a 4' high stand and are located in a relatively small radiator room.
- 8) Package the radiator core assemblies on pallets, ship them to an experienced radiator repair shop, and perform the following tasks:
 - a) Disassemble the radiator core assemblies and thoroughly clean.
 - b) Repair any defects in the tanks.
 - c) Install new replacement core assemblies identical to the original. Note that factory core placements have a 6 month lead time so these will need to be custom fabricated cores produced on an expedited basis.
 - d) Install the tanks and side panels on the new cores with new gaskets.
 - e) Pressure test the complete assemblies.
- 9) Package the rebuilt radiator core assemblies on pallets, cover with plywood all around, and deliver to Tuluksak.
- 10) Re-mobilize a crew to Tuluksak and perform the following tasks:
 - a) Reinstall the new core assemblies and re-assemble the radiators.
 - b) Reconnect the radiators to the existing piping using new flange gaskets and reconnect the electrical service.
 - c) Pressure test the radiators and reconnected piping with minimum 15 PSIG air using a foaming soapy water solution on all connections.
 - d) Fill the system with new glycol solution and purge air.
 - e) Install the new radiator pressure cap on the expansion tank then pump system up to 6 PSIG minimum.
- 11) Have the local power plant operator start the generator and run until the engine warms up enough to begin circulation. Purge air and add glycol to bring the level in the expansion tank to approximately 2/3 full with 6 PSIG minimum pressure.
- 12) Have the local power plant operator take an outage, disconnect the standby generator, and place the power plant on line powering the community. Observe operation for two hours minimum to confirm proper operation and no leaks.

- 13) Upon completion of Work, remove all Contractor tools and equipment from the project site, thoroughly clean all work areas, remove all rubbish and debris, and dispose of all waste in accordance with State requirements.

IV. Special Terms and Conditions:

- 1) The funds being used for this project are from the State of Alaska. Federal funds are not being used; therefore, Federal prevailing wage rates do not apply and the work is not subject to the Buy America Act.
- 2) Tuluksak Traditional Power Utility is not a political subdivision of the State of Alaska; therefore, this work is not subject to AS 36.05. Alaska Mini-Davis-Bacon wage rates do not apply and certified payroll is not required.

V. Insurance Requirements:

The Contractor shall purchase at their own expense and maintain in force at all times during the performance of services under this agreement the following policies of insurance. Where specific limits are shown, it is understood that they shall be the minimum acceptable limits. If the Contractor's policy contains higher limits, the Owner shall be entitled to coverage to the extent of such higher limits. Certificates of Insurance must be furnished to the Owner prior to beginning work and must provide for a notice of cancellation, non-renewal, or material change of conditions in accordance with policy provisions. Failure to furnish satisfactory evidence of insurance or lapse of the policy is a material breach of this contract and shall be grounds for termination of the Contractor's services. All insurance policies shall comply with, and be issued by insurers licensed to transact the business of insurance under AS 21. Proof of insurance is required for the following:

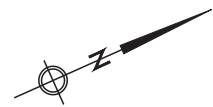
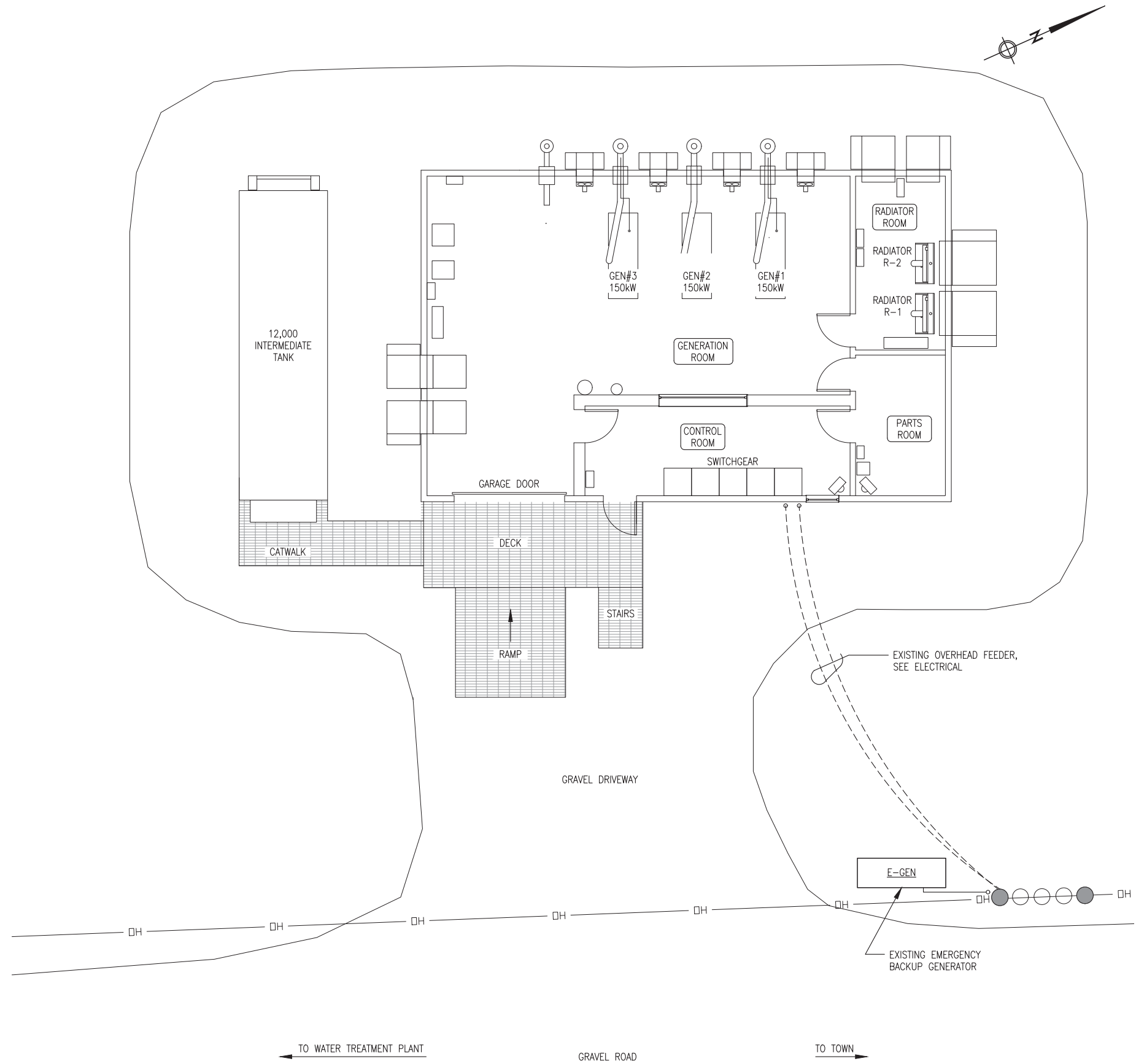
Workers' Compensation Insurance: The Contractor shall provide and maintain, for all employees engaged in work under this contract, coverage as required by AS 23.30.045, and; where applicable, any other statutory obligations including but not limited to Federal U.S.L. & H. and Jones Act requirements. The policy must waive subrogation against Owner.

Commercial General Liability Insurance: covering all business premises and operations used by the Contractor in the performance of services under this agreement with minimum coverage limits of \$1,000,000 combined single limit per occurrence. The Owner shall be listed as additional insured and a Waiver of Subrogation against the Owner will be provided.

Commercial Automobile Liability Insurance: covering all vehicles used by the Contractor in the performance of services under this agreement with minimum coverage limits of \$300,000 combined single limit per occurrence.

Failure to supply satisfactory proof of insurance within the time required may cause Owner to declare the bidder non-responsible and to reject the bid.

The Certificate of Insurance shall name Tuluksak Traditional Power Utility and the Alaska Energy Authority as certificate holders and reference the project title "Tuluksak Power Plant Radiator Repair".



PROJECT SCOPE OF WORK:

THE INTENT OF THE CONTRACT IS TO PROVIDE FOR THE CONSTRUCTION AND COMPLETION OF EVERY DETAIL OF WORK DESCRIBED IN THE RFQ. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, SUPERVISION, EQUIPMENT, TOOLS, TRANSPORTATION, QUALITY CONTROL, AND SUPPLIES REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE RFQ. THE WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING TASKS:

- 1) PRIOR TO BEGINNING CONSTRUCTION, PROVIDE A SCHEDULE TO AEA. THE SCHEDULE SHALL INCLUDE THE ESTIMATED DATE FOR SUBSTANTIAL COMPLETION SO THAT AEA CAN SCHEDULE STAFF TRAVEL FOR INSPECTION, TESTING, AND COMMISSIONING.
- 2) PROVIDE DAILY PROGRESS REPORTS TO AEA VIA EMAIL. REPORTS SHALL INCLUDE A BRIEF SUMMARY OF WORK COMPLETED ALONG WITH REPRESENTATIVE PHOTOS.
- 3) PROVIDE THE FOLLOWING MATERIALS DELIVERED TO TULUKSAK:
 - a) TWO EACH CLEAN 55 GALLON DRUMS FOR DRAINING AND STORING EXISTING COOLANT.
 - b) THREE EACH 55 GALLON DRUMS OF NEW EXTENDED LIFE ETHYLENE GLYCOL COOLANT PRE-MIXED TO A RATIO OF 50% GLYCOL AND 50% WATER.
 - c) SIX EACH 3" ANSI 150# FLANGE GASKETS FOR RADIATOR FLEX CONNECTIONS.
 - d) ONE EACH REPLACEMENT RADIATOR PRESSURE CAP, 12 PSIG MINIMUM, 15 PSIG MAXIMUM.
- 4) MOBILIZE A CREW TO TULUKSAK WITH TOOLS, EQUIPMENT, MATERIALS, AND SUPPLIES AS NEEDED FOR EXECUTION OF THE WORK.
- 5) PRIOR TO BEGINNING WORK ON THE COOLANT SYSTEM VERIFY THAT THE COMMUNITY IS RUNNING ON THE STANDBY GENERATOR. CHECK WITH THE LOCAL OPERATOR ON THE STATUS OF THE STANDBY GENERATOR. IF THERE ARE CONCERNS ABOUT THE ABILITY OF THE STANDBY GENERATOR TO OPERATE THE COMMUNITY FOR THE NEXT MONTH, REPORT THE FINDINGS TO AEA IMMEDIATELY.
- 6) WITH POWER PLANT OFF LINE, DRAIN ALL COOLANT FROM THE SYSTEM INCLUDING THE ENGINES AND ALL LOW POINTS. PLACE THE COOLANT INTO THE NEW DRUMS AND TURN OVER TO THE UTILITY.
- 7) DISCONNECT THE PIPING AND ELECTRICAL, DISASSEMBLE THE TWO RADIATORS, AND REMOVE THE COMPLETE CORE ASSEMBLIES INCLUDING TANKS AND SIDE PANELS. NOTE THE FOLLOWING:
 - a) THE EXISTING RADIATORS ARE YOUNG MWC 66D5FR WITH 5 HP MOTORS.
 - b) THE RADIATORS ARE EACH CONNECTED TO THE PIPING WITH 3 EACH 3" FPT BY 3" ANSI 150# FLOATING FLANGE FLEX CONNECTORS.
 - c) THE RADIATORS ARE INSTALLED ON A 4' HIGH STAND AND ARE LOCATED IN A RELATIVELY SMALL RADIATOR ROOM.
- 8) PACKAGE THE RADIATOR CORE ASSEMBLIES ON PALLETS, SHIP THEM TO AN EXPERIENCED RADIATOR REPAIR SHOP, AND PERFORM THE FOLLOWING TASKS:
 - a) DISASSEMBLE THE RADIATOR CORE ASSEMBLIES AND THOROUGHLY CLEAN.
 - b) REPAIR ANY DEFECTS IN THE TANKS.
 - c) INSTALL NEW REPLACEMENT CORE ASSEMBLIES IDENTICAL TO THE ORIGINAL. NOTE THAT FACTORY CORE PLACEMENTS HAVE A 6 MONTH LEAD TIME SO THESE WILL NEED TO BE CUSTOM FABRICATED CORES PRODUCED ON AN EXPEDITED BASIS.
 - d) INSTALL THE TANKS AND SIDE PANELS ON THE NEW CORES WITH NEW GASKETS.
 - e) PRESSURE TEST THE COMPLETE ASSEMBLIES.
- 9) PACKAGE THE REBUILT RADIATOR CORE ASSEMBLIES ON PALLETS, COVER WITH PLYWOOD ALL AROUND, AND DELIVER TO TULUKSAK.
- 10) RE-MOBILIZE A CREW TO TULUKSAK AND PERFORM THE FOLLOWING TASKS:
 - a) REINSTALL THE NEW CORE ASSEMBLIES AND RE-ASSEMBLE THE RADIATORS.
 - b) RECONNECT THE RADIATORS TO THE EXISTING PIPING USING NEW FLANGE GASKETS AND RECONNECT THE ELECTRICAL SERVICE.
 - c) PRESSURE TEST THE RADIATORS AND RECONNECTED PIPING WITH MINIMUM 15 PSIG AIR USING A FOAMING SOAPY WATER SOLUTION ON ALL CONNECTIONS.
 - d) FILL THE SYSTEM WITH NEW GLYCOL SOLUTION AND PURGE AIR.
 - e) INSTALL THE NEW RADIATOR PRESSURE CAP ON THE EXPANSION TANK THEN PUMP SYSTEM UP TO 6 PSIG MINIMUM.
- 11) HAVE THE LOCAL POWER PLANT OPERATOR START THE GENERATOR AND RUN UNTIL THE ENGINE WARMS UP ENOUGH TO BEGIN CIRCULATION. PURGE AIR AND ADD GLYCOL TO BRING THE LEVEL IN THE EXPANSION TANK TO APPROXIMATELY 2/3 FULL WITH 6 PSIG MINIMUM PRESSURE.
- 12) HAVE THE LOCAL POWER PLANT OPERATOR TAKE AN OUTAGE, DISCONNECT THE STANDBY GENERATOR, AND PLACE THE POWER PLANT ON LINE POWERING THE COMMUNITY. OBSERVE OPERATION FOR TWO HOURS MINIMUM TO CONFIRM PROPER OPERATION AND NO LEAKS.
- 13) UPON COMPLETION OF WORK, REMOVE ALL CONTRACTOR TOOLS AND EQUIPMENT FROM THE PROJECT SITE, THOROUGHLY CLEAN ALL WORK AREAS, REMOVE ALL RUBBISH AND DEBRIS, AND DISPOSE OF ALL WASTE IN ACCORDANCE WITH STATE REQUIREMENTS.

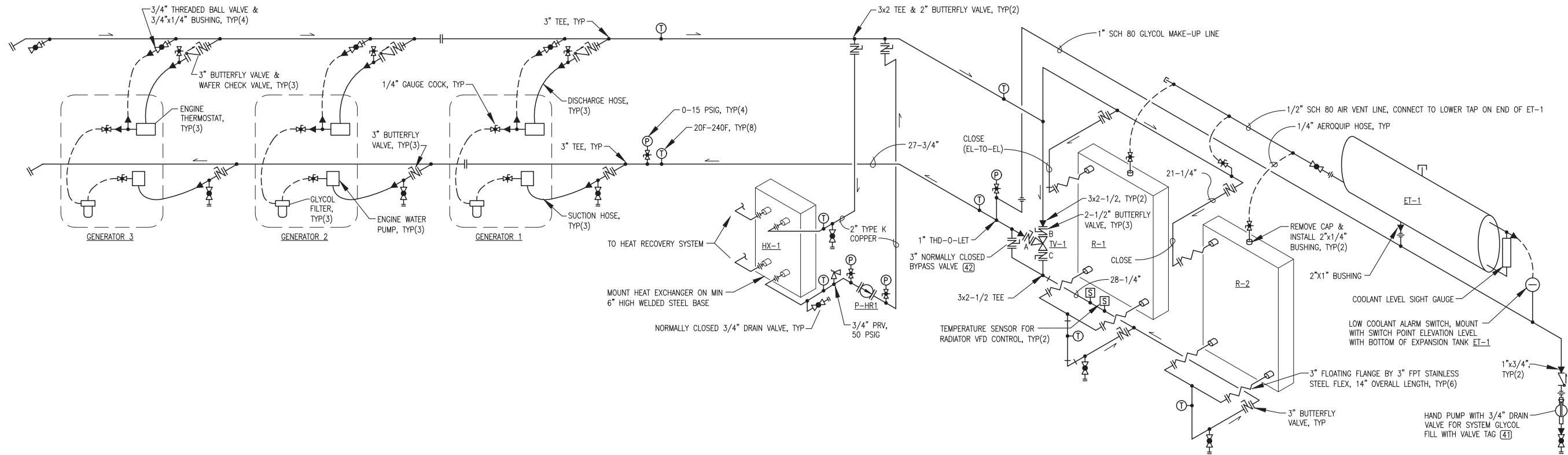
1 SITE PLAN
M1 3/16"=1'-0"

ISSUED FOR
CONSTRUCTION
MAY 2024



PROJECT: TULUKSAK POWER PLANT 2024 RADIATOR REPAIR PROJECT		
TITLE: SITE PLAN & SCOPE OF WORK		
DRAWN BY: JTD	SCALE: AS NOTED	
DESIGNED BY: BCG	DATE: 5-23-24	
FILE NAME: TULU RR M1-M2	SHEET: M1	
PROJECT NUMBER:		







1 ENGINE COOLING SYSTEM PIPING ISOMETRIC
NO SCALE



2 RADIATOR ROOM PHOTOS
NO SCALE

ISSUED FOR
CONSTRUCTION
MAY 2024



 ALASKA ENERGY AUTHORITY		
PROJECT:	TULUKSAK POWER PLANT 2024 RADIATOR REPAIR PROJECT	
TITLE:	COOLING SYSTEM PIPING ISOMETRIC & RADIATOR ROOM PHOTOS	
 Gray Stassel Engineering, Inc. P.O. 111405, Anchorage, AK 99511 (907)349-0100	DRAWN BY: JTD DESIGNED BY: BCG FILE NAME: TULU RR M1-M2 PROJECT NUMBER:	SCALE: AS NOTED DATE: 5-23-24 SHEET: M2