

 RETURN BY EMAIL AEAProcurement@akenergyauthority.org	Request For Quotation Bids Due: 2 PM AKST Sept. 3, 2026	Project: Hughes Engine Cooling System Flush & Repair			
RFQ NO: 27013		Page 1 of 16 Date: 8/21/26			
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 along with the Debarment Certificate, page 4 of Appendix B, and return both pages. Please 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: Hughes Power Plant Hughes, Alaska	PROJECT MANAGER: Justin J. Tuomi (907) 771-3093 jituomi@akenergyauthority.org				
This Request for Quotation (RFQ) is for a licensed contractor to perform Work in the diesel electric power plant in Hughes, Alaska. The Work shall consist primarily of cleaning, flushing, and refilling a cooling system for diesel-generators along with associated minor piping repairs as described in Appendix C, Detailed Project Description, and Appendix D, Drawings and Specifications. The Engineer's Estimate for the Work is between \$30,000 and \$60,000. All questions relating to bidding procedures should be directed to: Selwin C. Ray, Contract Officer, (907) 771-3035 AEAProcurement@akenergyauthority.org All questions relating to technical aspects of the project should be directed to: Justin J. Tuomi, Project Manager, (907) 771-3093 jituomi@akenergyauthority.org 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 C, Detailed Project Description. Provide a firm substantial completion date where indicated below.					
THIS SECTION MUST BE COMPLETED BY CONTRACTOR					
Completion is desired no later than November 1, 2026. 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.	Contractor Tax I.D. No.	Contractor Registration No.			
_____ Signature		_____ Date			
_____ Signature		_____ 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: The Procurement Code (AS.36.30) and its Regulations (2 AAC Ch. 12), are made a part of this document as if fully set forth herein. Note: AS.36.30 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.

**INSTRUCTIONS TO BIDDERS
TERMS AND CONDITIONS**

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 AS 36.30.320. 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 AS 36.30.550 and 2 AAC 12.695.

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.DISCLOSURE OF QUOTE CONTENTS: This section governs the ownership, return, and disclosure of any offer or other record a bidder submits in response to this request for quotations. (Herein, any reference to "Record" includes all such records and the offer; any reference to "Law" includes any federal or State of Alaska (State) law, including any court or administrative order or rule.)

**INSTRUCTIONS TO BIDDERS
TERMS AND CONDITIONS**

1. All Records belong to the State.
2. The State has sole discretion regarding whether to return any Record. In exercising this discretion, the State will comply with all Laws.
3. Unless a notice of award is issued, the State will, to the extent permitted by Law, consider all Records confidential and not subject to the Alaska Public Records Act (APRA).
4. If, and when a notice of award is issued, the State will consider nonconfidential any Record unless, at the time of submission, the bidder undertook the following protective measures:
 - a. marked information confidential;
 - b. for any information marked confidential, identified the authority that makes that specific information confidential; and
 - c. committed, in writing, to explain in detail, including with affidavits and briefs, why each authority applies in any court or administrative proceeding in which any nondisclosure is challenged.
5. If the bidder did not undertake each protective measure, the State will not consider any information in a Record confidential: the State will disclose the entire Record without any redaction in response to an APRA or other request or, if it chooses, in the absence of a request and the State will disclose the entire Record without notifying the bidder.
6. If the bidder undertook each protective measure, the State will withhold the information marked confidential to the following extent:
 - a. the State agrees that the Law protects the information; and
 - b. if the nondisclosure is challenged, the bidder fulfills its commitment to explain, including with affidavits and briefs, how each authority applies to the information marked confidential.
7. The State will only notify a bidder of a request for the Record and of a planned release if the bidder undertook each protective measure, but the State disagrees that the marked information is protected. If there is such a disagreement, then before releasing the Record, the State will, to the extent permitted by Law and practicable, notify the bidder that it will disclose the information unless the bidder convinces the State not to or obtains an order prohibiting disclosure.

21. 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.

22. 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.

23. 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.

24. 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.

25. 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.

**INSTRUCTIONS TO BIDDERS
TERMS AND CONDITIONS**

26.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.

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

28.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.

29.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.

30.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 AS 36.30.620 – 632.

31.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.

32.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.

33.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.

34.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.

**INSTRUCTIONS TO BIDDERS
TERMS AND CONDITIONS**

35.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.

36.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.

37.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.

38.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.

39.COMPLIANCE WITH BABA: The funding for this project is exempt from Build America, Buy America Act requirements. See Appendix B, paragraph B.13 for explanation of waiver.

40. GENERAL CONDITIONS FOR THE CONSTRUCTION CONTRACT: See Appendix A, General Conditions, for additional Terms and Conditions that apply to the construction contract.

APPENDIX A - GENERAL CONDITIONS

Note: The following General Conditions supplement the Terms and Conditions on the RFQ form.

A.1 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 department reasonably requires.

A.2 DISPUTES

If the contractor has a claim arising in connection with the contract that it cannot resolve with the Authority by mutual agreement, it shall pursue the claim, if at all, in accordance with the provisions of 2 AAC 108.915.

Note that the RFQ Terms and Conditions #30 references AS 36.30. This reference to 2 AAC 108.915 supersedes the AS 36.30 reference and shall be used for claims.

A.3 NO ASSIGNMENT OR DELEGATION

The contractor may not assign or delegate this contract, or any part of it, or any right to any of the money to be paid under it, except with the written consent of the Contracting Officer.

A.4 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.

A.5 INDEPENDENT CONTRACTOR

The contractor and any agents and employees of the contractor act in an independent capacity and are not officers or employees or agents of the Authority in the performance of this contract.

A.6 PAYMENT OF TAXES

As a condition of performance of this contract, the contractor shall pay all federal, State, and local taxes incurred by the contractor and shall require their payment by any subcontractor or any other persons in the performance of this contract. Satisfactory performance of this paragraph is a condition precedent to payment by the Authority under this contract.

A.7 COMPLIANCE

In the performance of this contract, 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.

A.8 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.

APPENDIX B – FEDERAL ASSURANCES

Because this contract is funded with federal funds, the following contract provisions shall apply, where applicable, to all work performed on the contract by the contractor's own organization and by subcontractors. As provided in this Section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions and further require their inclusion in any lower tier subcontracts or purchase orders that may in turn be made. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with all applicable Required Contract Provisions.

B.1 BREACHES AND DISPUTE RESOLUTION.

Contracts in excess of \$250,000. Any dispute arising under this Contract which is not disposed of by mutual agreement shall be resolved in accordance with 2 AAC 108.915.

B.2 TERMINATION.

Contracts in excess of \$10,000. This Contract may be terminated by either party upon 10 days written notice if the other party fails substantially to perform in accordance with its terms through no fault of the party initiating the termination ("Default Termination"). If the Authority terminates this agreement, the Authority will pay the Contractor a sum equal to the percentage of Work completed that can be substantiated either by the Contractor to the satisfaction of the Authority, or by the Authority. If the Authority becomes aware of any non-conformance with the Work or this agreement by the Contractor, the Authority will promptly notify the Contractor in writing of the non-conformance. Should the Contractor's Work remain in non-conformance after having received written notification, the percentage of total compensation attributable to the non-conforming Work may be withheld. The Authority may at any time suspend or terminate ("Convenience Termination") this Agreement for its needs or convenience with or without cause upon written notice. In the event of a Convenience Termination, the Contractor will be compensated for all authorized Work and authorized expenditures performed to the date of receipt of written notice of termination plus reasonable expenses. No fee or other compensation will be due for any incomplete portion of the Work.

B.3 EQUAL EMPLOYMENT OPPORTUNITY.

Except as otherwise provided under [41 CFR Part 60](#), **all construction contracts** must include, and all contractors and subcontractors must comply with, the equal opportunity clause provided under [41 CFR 60-1.4\(b\)](#), in accordance with Executive Order 11246, "Equal Employment Opportunity" ([30 FR 12319](#), [12935](#), [3 CFR Part, 1964-1965](#) Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at [41 CFR part 60](#), "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

B.4 DAVIS-BACON ACT, AS AMENDED ([40 U.S.C. 3141-3148](#)).

Construction contracts in excess of \$2,000 are required to comply with the Davis-Bacon Act ([40 U.S.C. 3141-3144](#), and [3146-3148](#)) as supplemented by Department of Labor regulations ([29 CFR Part 5](#), "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). Contractors are required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must pay wages not less than once a week. **A copy of the current prevailing wage determination issued by the Department of Labor is included in this solicitation.** Contract and subcontract awards must be conditioned upon the acceptance of the wage determination. All suspected or reported violations must be reported to the Federal awarding agency.

B.5 COPELAND “ANTI-KICKBACK” ACT ([40 U.S.C. 3145](#))

Construction contracts in excess of \$2,000 are required to comply with the **Copeland “Anti-Kickback” Act ([40 U.S.C. 3145](#))**, as supplemented by Department of Labor regulations ([29 CFR Part 3](#), “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”). Each contractor or subrecipient is prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. All suspected or reported violations must be reported to the Federal awarding agency.

B.6 CONTRACT WORK HOURS/SAFETY STANDARDS ACT ([40 U.S.C. 3701-3708](#)).

Construction contracts in excess of \$100,000 that involve the employment of mechanics or laborers are required to comply with [40 U.S.C. 3702](#) and [3704](#), as supplemented by Department of Labor regulations ([29 CFR Part 5](#)). Under [40 U.S.C. 3702](#) of the Act, each contractor is required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of [40 U.S.C. 3704](#) are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

B.7 RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT.

If the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of [37 CFR Part 401](#), “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.

B.8 CLEAN AIR ACT ([42 U.S.C. 7401-7671q](#).) AND THE FEDERAL WATER POLLUTION CONTROL ACT ([33 U.S.C. 1251-1387](#)), AS AMENDED

Contracts in excess of \$150,000 are required to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act ([42 U.S.C. 7401-7671q](#)) and the Federal Water Pollution Control Act as amended ([33 U.S.C. 1251-1387](#)). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

B.9 DEBARMENT AND SUSPENSION (EXECUTIVE ORDERS 12549 & 12689)

A contract award **greater than or equal to \$25,000** (see [2 CFR 180.220](#)) must not be made to parties listed on the government wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at [2 CFR 180](#) that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), “Debarment and Suspension.” **Contractors that apply or bid for an award exceeding \$25,000 must sign and submit the attached “Debarment” certification with their bid.**

B.10 BYRD ANTI-LOBBYING AMENDMENT ([31 U.S.C. 1352](#))

Each contractor and subcontractor must certify that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or

employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by [31 U.S.C. 1352](#). Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Disclosures shall be forwarded from tier to tier up to the Authority. **Contractors that apply or bid for an award exceeding \$100,000 must sign and submit the attached “Lobbying” certification with their bid.**

B.11 PROCUREMENT OF RECOVERED MATERIALS.

A state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at [40 CFR part 247](#) that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, **where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000**; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

B.12 PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT.

Contractors and subcontractors are prohibited from entering into a contract (or extending or renewing a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in [Public Law 115-232](#), section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). See [§ 200.216](#).

B.13 DOMESTIC PREFERENCES FOR PROCUREMENTS.

As appropriate and to the extent consistent with law, and to the greatest extent practicable, Contractor's are required to provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all contracts and purchase orders for work or products under this award. See [§ 200.322](#).

The funding for this project is exempt from Build America, Buy America Act requirements; therefore this solicitation is **NOT** subject to Buy America Preferences for Infrastructure Projects, [2 CFR 184](#). The federal funding for this project is Denali Commission funds, which are exempt pursuant to the Denali Commission Small Grants Waiver which waives BABA preference requirements for federal awards less than or equal to the Simplified Acquisition Threshold of \$350,000 per 2 CFR 200.1.

DEBARMENT, SUSPENSION, INELIGIBILITY & VOLUNTARY EXCLUSION – 2 CFR 200.214; Executive Orders 12549 and 12689 [Applicable to all federally assisted contracts which exceed \$25,000]**Instructions for Certification:**

1. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective contractor and lower tier participants knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Authority may pursue available remedies, including suspension and/or debarment.
2. The prospective contractor and lower tier participants shall provide immediate written notice to the Authority if at any time the prospective contractor and lower tier participants learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
3. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "persons," "lower tier covered transaction," "principal," "proposal," and voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Orders [12549](#) and 12689. You may contact the Authority for assistance in obtaining a copy of those regulations.
4. The prospective contractor and lower tier participants agrees by submitting this bid or proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized in writing by the Authority.
5. The prospective contractor and lower tier participants further agrees by submitting this bid or proposal that it will require the language of this certification be included in all subcontracts and all lower tier participants shall certify compliance with this requirement.
6. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Non-procurement List issued by U.S. General Service Administration.
7. Nothing contained in the foregoing shall be construed to require establishment of system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
8. Except for transactions authorized under Paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to all remedies available to the Federal Government, the Authority may pursue available remedies including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transaction

(1) The prospective contractor and lower tier participants certifies, by submission of this bid or proposal, that neither it nor its "principals" is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) When the prospective contractor and lower tier participants is unable to certify to the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The Contractor, _____ certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 2 CFR §180 apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official: _____

Name and Title of Contractor's Authorized Official: _____

Date: _____

End of Federal Assurances

I. Background:

The City of Hughes operates a power plant that provides prime power to the community of Hughes using 3 each diesel-powered engine-generators. The plant cooling system is due for flushing and glycol replacement along with minor repairs. Because this work requires multiple power outages it must be completed prior to cold winter weather. Note that this project is named Phase 1. There are additional upgrades that will be performed over the winter under a separate Phase 2 contract.

II. Project Schedule:

September 3, 2026	Quotes Due no later than 2 PM.
September 8, 2026	Notice of Contract Award.
November 1, 2026	Substantial Completion.

III. Scope of Work:

Drawings M1 and M2 which include short form specifications are included in Appendix D and are hereby incorporated into this RFQ.

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. Note that a detailed schedule is not required, just start and completion dates.
- 2) Provide a submittal for the ethylene glycol coolant and the cooling system hoses.
- 3) During the on site work, provide daily progress reports to AEA via email. Reports shall include a brief summary of work completed along with representative photos.
- 4) Receive Owner Furnished Equipment. See Part IV, Owner Furnished Equipment.
- 5) Furnish all other required miscellaneous materials and hardware.
- 6) Mobilize all required materials, equipment, tools, supplies, etc. and all required personnel to the project site in Hughes, Alaska.
- 7) Maintain power in the community during construction with limited outages scheduled in advance with the local utility.
- 8) Flush, clean and repair cooling system as follows:
 - a) Drain existing coolant from system and perform a complete system clean and flush procedure.
 - b) De-grease and pressure wash radiator cores.
 - c) Replace the existing expansion tank pressure cap with new Owner Furnished assembly.
 - d) Replace the existing expansion tank site gauge and revise piping as indicated.
 - e) Replace small diameter cooling system hoses as indicated.
 - f) Fill system with all new pre-mixed 60/40 ELC ethylene glycol/water solution.

- 9) 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. Owner Furnished Equipment:

Under Part IV the term Owner refers to the Alaska Energy Authority (AEA).

- 1) The AEA will furnish one each radiator pressure cap with 2" MPT adapter as indicated.
- 2) The materials will be staged at the AEA Warehouse, 2601 Commercial Drive, Anchorage, AK. The Contractor shall receive and accept the materials at the AEA Warehouse.

VI. Special Terms and Conditions:

- 1) Specific insurance requirements are included under Part VII, Insurance. The Contractor shall provide Insurance in accordance with these requirements. Note that 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.
- 2) The City of Hughes is a political subdivision of the State of Alaska; therefore, this work is subject to AS 36.05. Alaska Mini-Davis-Bacon wage rates, Department of Labor notification, and certified payroll apply to all work on site.
- 3) This work is funded through a Denali Commission Small Projects grant which is exempt from the Build America Buy America (BABA) Act; therefor BABA requirements do not apply to this work.

VII. 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 parties below shall be listed as additional insured and a Waiver of Subrogation against the additional insured parties will be provided.

- The Alaska Energy Authority (AEA)
- The State of Alaska
- The Denali Commission
- The City of Hughes

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 City of Hughes, Alaska Energy Authority, and Denali Commission as certificate holders and reference the project title "Hughes Power Plant 2026 M&I Project".

PIPING LEGEND	
	BUTTERFLY VALVE
	BALL VALVE
	CHECK VALVE
	HOSE END DRAIN VALVE
	GAUGE COCK
	Y-STRAINER
	AUTOMATIC AIR VENT
	FLEXIBLE CONNECTOR
	FLANGED JOINT
	UNION
	ELBOW TURNED UP
	ELBOW TURNED DOWN
	PIPING CONNECTION (TEE)
	PIPING REDUCER
	DIRECTION OF FLOW
INSTRUMENT/CONTROL LEGEND	
	PRESSURE GAUGE
	EXIST ANALOG THERMOMETER
	NEW DIGITAL THERMOMETER
	LOW COOLANT SWITCH
	STRAP-ON AQUASTAT
NOTE: SEE SPECIFICATIONS & INSTRUMENTATION SCHEDULE FOR DEVICE FUNCTION & FEATURES.	
ABBREVIATIONS	
Ø	DIAMETER (PHASE)
A	AMPS
AFF	ABOVE FINISHED FLOOR
BTU	BRITISH THERMAL UNIT
DFR	DIESEL FUEL RETURN
DFS	DIESEL FUEL SUPPLY
ECR	ENGINE COOLANT RETURN
ECS	ENGINE COOLANT SUPPLY
EWT	ENTERING WATER TEMPERATURE
EXIST	EXISTING
FPT	FEMALE PIPE THREAD
GA	GAUGE
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
GRC	GALVANIZED RIGID CONDUIT
HP	HORSEPOWER
HRR	HEAT RECOVERY RETURN
HRS	HEAT RECOVERY SUPPLY
ID	INSIDE DIAMETER
KW	KILOWATT
LT	LIQUID TIGHT
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MIN	MINIMUM
MPT	MALE PIPE THREAD
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OC	ON CENTER
OD	OUTSIDE DIAMETER
PRV	PRESSURE RELIEF VALVE
PSI	POUNDS/PER SQUARE INCH
PSID	PSI DIFFERENTIAL
PSIG	PSI GAUGE
SCH	SCHEDULE
TDH	TOTAL DEVELOPED HEAD
TYP	TYPICAL
UOR	USED OIL RETURN
V	VOLTS
W	WATTS
WG	WATER GAUGE

SCHEDULE OF DRAWINGS:	
M1	SCHEDULES, LEGENDS, & SPECIFICATIONS
M2	PIPING ISOMETRIC, DETAILS, & PROCEDURE

ENGINE-GENERATOR SCHEDULE	
GENSET	DESCRIPTION
GEN #1	UNIT RATED 100kW 480V 3-PHASE ENGINE – 148 HP, 100 EKW PRIME, JOHN DEERE 4045AFM85, TIER 3 MARINE. 24 VDC STARTING & CONTROL. S/N PE4045L93041 GENERATOR – 125 KW CONTINUOUS AT 105°C RISE, MARATHON 431PSL6208. S/N WA-540642-0804
GEN #2	UNIT RATED 150kW, 480V 3-PHASE ENGINE – 223 HP, 150 EKW PRIME, JOHN DEERE 6068AFM85, TIER 3 MARINE. 24 VDC STARTING & CONTROL. S/N PE6068N013490 GENERATOR – 150 KW CONTINUOUS AT 105°C RISE, NEWAGE/STAMFORD UC1274G1. S/N X20D164416
GEN #4	UNIT CURRENTLY DE-RATED TO 165KW DUE TO CONDUCTOR AMPACITY ENGINE – 217 HP, 178 EKW PRIME, JOHN DEERE 6081AM75, TIER 2 MARINE. 24 VDC STARTING & CONTROL. RG6081A302495 GENERATOR – 185 KW CONTINUOUS AT 105°C RISE, NEWAGE/STAMFORD UC1274G1. S/N X17F231504

** GENERAL CONDITIONS **

PERFORM ALL WORK IN ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF THE INTERNATIONAL FIRE CODE AND THE INTERNATIONAL BUILDING CODE INCLUDING STATE OF ALASKA AMENDMENTS. COMPLY WITH ALL APPLICABLE STATE AND FEDERAL REGULATIONS.

THE DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY SHOW ALL FEATURES OF THE REQUIRED WORK. PROVIDE ALL EQUIPMENT AND MATERIALS REQUIRED FOR A COMPLETE SYSTEM. VERIFY EXISTING FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION. IMMEDIATELY CONTACT THE OWNER FOR CLARIFICATION OF QUESTIONABLE ITEMS OR APPARENT CONFLICTS.

ALL EQUIPMENT AND MATERIALS SHOWN ARE NEW UNLESS SPECIFICALLY INDICATED AS EXISTING. WHERE ADDITIONAL OR REPLACEMENT ITEMS ARE REQUIRED, PROVIDE LIKE ITEMS BY THE SAME MANUFACTURER TO THE MAXIMUM EXTENT PRACTICAL. INSTALL ALL MATERIALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND INSTRUCTIONS, UNLESS INDICATED OTHERWISE.

PROTECT ALL MATERIALS AND EQUIPMENT DURING THE ENTIRE DURATION OF CONSTRUCTION WORK AGAINST CONTAMINATION OR DAMAGE. REPLACE OR REPAIR TO ORIGINAL MANUFACTURED CONDITION ANY ITEMS DAMAGED DURING CONSTRUCTION. IMMEDIATELY REPORT TO THE OWNER ANY ITEMS FOUND DAMAGED PRIOR TO COMMENCING CONSTRUCTION.

PERFORM WORK WITH SKILLED CRAFTSMEN SPECIALIZING IN SAID WORK. INSTALL ALL MATERIALS IN A NEAT, ORDERLY, AND SECURE FASHION, AS REQUIRED BY THESE SPECIFICATIONS AND COMMONLY RECOGNIZED STANDARDS OF GOOD WORKMANSHIP.

** SPECIAL CONDITIONS **

ENSURE THAT APPROPRIATE SAFETY MEASURES ARE IMPLEMENTED AND THAT ALL WORKERS ARE AWARE OF THE POTENTIAL HAZARDS FROM ELECTRICAL SHOCK, BURN, ROTATING FANS, PULLEYS, BELTS, HOT MANIFOLDS, NOISE, ETC. ASSOCIATED WITH WORKING NEAR POWER GENERATION AND CONTROL EQUIPMENT.

** GLYCOL PIPING, VALVES, AND SPECIALTIES **

ENGINE COOLANT HOSES – SIZE AS INDICATED ON DRAWINGS. WIRE REINFORCED CORRUGATED SILICONE HOSE, FLEXFAB 5508, TUSIL RADIFLEX, CRP INDUSTRIES 9200, OR APPROVED EQUAL. ON HOSES LARGER THAN 1" INSTALL WITH STAINLESS STEEL T-BOLT CLAMPS, IDEAL-TRIDON 30051 OR APPROVED EQUAL. ON HOSES 1" AND SMALLER INSTALL WITH LINED STAINLESS STEEL CONSTANT TORQUE CLAMPS, IDEAL-TRIDON 47 OR APPROVED EQUAL.

BALL VALVES – THREADED OR SOLDER END BRONZE BODY, CHROME PLATED BRONZE OR BRASS BALL, TFE OR VITON PACKING AND SEAT RING, MIN. 200 PSIG WOG RATING. APOLLO, FNW, JOMAR, OR MILWAUKEE (DOMESTIC), NO OTHER SUBSTITUTES. ON 2" AND SMALLER VALVES PROVIDE FULL PORT BALL. ON VALVES LARGER THAN 2" PROVIDE LARGE PORT BALL.

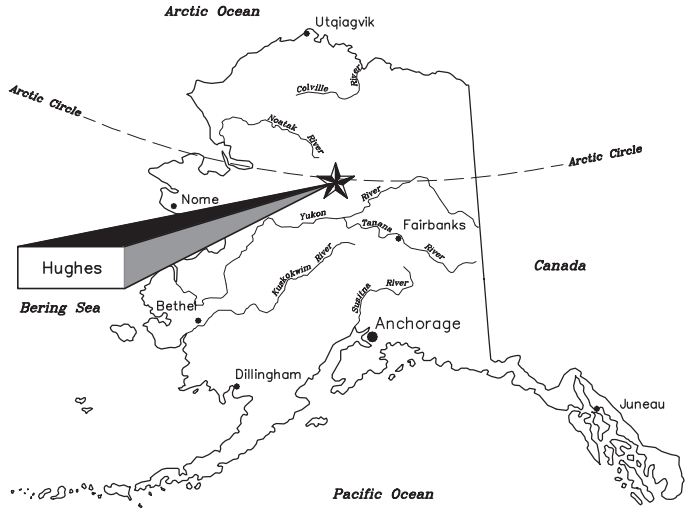
LIQUID LEVEL SIGHT GAUGE – BOROSILICATE GLASS TUBE, ALUMINUM BODY, BUNA N SEALS, 1/2" MPT CONNECTIONS, 9" CENTERS. LUBE DEVICES G607-09-A-1-4 OR APPROVED EQUAL.

ENGINE CLEANING SOLUTION – HEAVY DUTY ALKYLINE-BASED SOLUTION, CUMMINS FLEETGUARD RESTORE, OR EQUAL.

GLYCOL SOLUTION FOR ENGINE COOLING SERVICE – EXTENDED LIFE (HEAVY DUTY) ETHYLENE GLYCOL, SHELL ROTELLA ELC, CHEVRON DELO ELC, OR APPROVED EQUAL. PREMIX TO A RATIO OF 60% ETHYLENE GLYCOL TO 40% TREATED WATER. DYE THE SOLUTION BRIGHT PINK OR LIGHT RED, NO EXCEPTIONS. PACKAGE IN SEALED 55 GALLON DRUMS AND/OR 5 GALLON PAILS AND LABEL "ETHYLENE GLYCOL" WITH RED LETTERING.

** OWNER FURNISHED GLYCOL SPECIALTIES **

EXPANSION TANK CAP – HEAVY DUTY RADIATOR CAP FOR PRESSURIZED RESERVOIR, 10 PSIG, MOTORAD MODEL 1004-10, WITH FABRICATED ALUMINUM MOTORAD THREAD BY 2" MPT ADAPTER, TRI-JET 2NPT-RCA. NOTE THAT THIS ASSEMBLY WILL BE PROVIDED BY AEA AT NO COST TO THE CONTRACTOR.

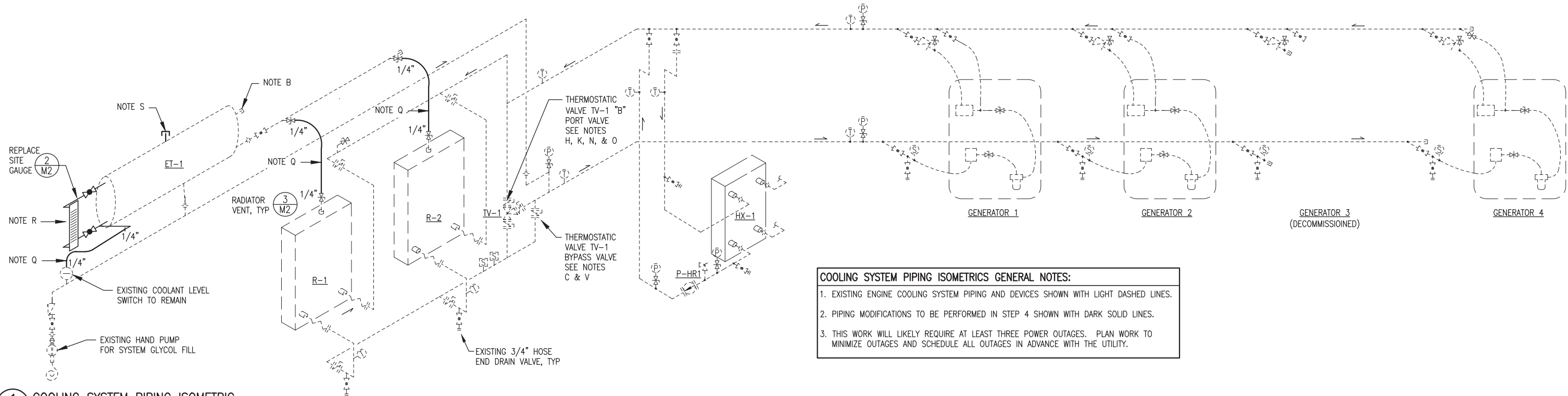


HUGHES POWER PLANT 2026 M&I PROJECT PHASE 1 COOLING SYSTEM FLUSH & REPAIR

ISSUED FOR
CONSTRUCTION
AUGUST 2026



 ALASKA ENERGY AUTHORITY		
PROJECT: HUGHES POWER PLANT 2026 M&i PROJECT PHASE 1 ENGINE COOLING SYSTEM FLUSH & REPAIR		
TITLE: LEGENDS, SCHEDULES, & SPECIFICATIONS		
 P.O. 111405, Anchorage, AK 99511 (907)349-0100	DRAWN BY: JTD	SCALE: AS NOTED
	DESIGNED BY: BCG	DATE: 8/10/26
	FILE NAME:HUGM&i26PH1	SHEET: M1
PROJECT NUMBER:		



COOLING SYSTEM PIPING ISOMETRICS GENERAL NOTES:

- EXISTING ENGINE COOLING SYSTEM PIPING AND DEVICES SHOWN WITH LIGHT DASHED LINES.
- PIPING MODIFICATIONS TO BE PERFORMED IN STEP 4 SHOWN WITH DARK SOLID LINES.
- THIS WORK WILL LIKELY REQUIRE AT LEAST THREE POWER OUTAGES. PLAN WORK TO MINIMIZE OUTAGES AND SCHEDULE ALL OUTAGES IN ADVANCE WITH THE UTILITY.

1
M2 COOLING SYSTEM PIPING ISOMETRIC
NO SCALE

ENGINE COOLING SYSTEM CLEAN, FLUSH, MODIFICATION & GLYCOL REPLACEMENT INSTRUCTIONS

ENGINE COOLING SYSTEM GLYCOL REPLACEMENT GENERAL NOTES:

1) ENGINE COOLANT SYSTEM VOLUME IS APPROXIMATELY 95 GALLONS. PROVIDE A MINIMUM OF 5 EACH EMPTY 55 GALLON DRUMS TO CONTAIN CONTAMINATED COOLANT AND CLEANING SOLUTION.

2) FURNISH 120 GALLONS OF NEW EXTENDED LIFE ETHYLENE GLYCOL SOLUTION PRE-MIXED TO A RATIO OF 60% GLYCOL TO 40% WATER.

3) PLAN WORK TO MINIMIZE OUTAGES AND SCHEDULE ALL OUTAGES IN ADVANCE WITH THE UTILITY.

4) WHEN DRAINING FLUID AS NOTED BELOW, DRAIN FROM ALL LOW POINTS AND USE LOW PRESSURE AIR AS REQUIRED TO CLEAR ISOLATED SECTIONS.

5) TURN OVER DRUMS OF USED GLYCOL AND CLEANING SOLUTION TO UTILITY FOR FINAL DISPOSITION.

STEP 1: ENGINE COOLING SYSTEM PREP & DRAIN

A. VERIFY THAT GEN#1, GEN#2 & GEN#4 ARE IN RUNNING ORDER AND AVAILABLE. NOTE: GEN#3 WAS PREVIOUSLY DECOMMISSIONED AND IS DISCONNECTED FROM THE COOLING SYSTEM.

B. REMOVE 1/2" PIPE PLUG IN EXPANSION TANK WHERE INDICATED ON ISOMETRIC "NOTE B" AND ATTACH HOSE TO BUCKET ON FLOOR. PERIODICALLY ADD WATER TO ALLOW HOT DETERGENT SOLUTION AND FRESH WATER RINSE TO FLOW THROUGH TANK AND INTO BUCKET. AFTER FLUSHING, REMOVE HOSE AND REPLACE PLUG

C. VERIFY THAT PUMP P-HR1 AT THE HX IS TURNED ON AND RUNNING. OPEN ALL 4 VALVES AT TV-1 (INCLUDING BYPASS). MANUALLY PARALLEL GEN#1, GEN#2 AND GEN#4 FOR ONE HOUR MINIMUM. TAKE OUTAGE, SHUT DOWN AND LOCK/TAG OUT GEN#1, GEN#2 AND GEN#4. TURN OFF PUMP P-HR1.

D. DRAIN THE EXISTING CONTAMINATED COOLANT FROM THE SYSTEM WITHIN 1/2 HOUR OF ENGINE SHUT DOWN TO AVOID SETTLING OUT SOLIDS. DRAIN INTO DRUMS AND TURN OVER TO UTILITY.

STEP 2: ENGINE COOLING SYSTEM DETERGENT FLUSH

E. TEMPORARILY REMOVE GEN#1, GEN#2 AND GEN#4 ENGINE THERMOSTATS TO ENSURE FULL FLOW IN PIPING FROM ENGINE WATER PUMPS

F. FILL SYSTEM WITH FRESH WATER AND ENGINE CLEANING SOLUTION MIXED PER MANUFACTURER'S INSTRUCTIONS (1 GALLON PER 10 GALLONS OF FRESH WATER FOR CUMMINS FLEETGUARD).

G. START GENERATORS AND TURN ON PUMP P-HR1. BRING SYSTEM UP TO OPERATING TEMPERATURE AND OPERATE FOR 24 HOURS MINIMUM.

H. AFTER SYSTEM IS FULLY UP TO TEMPERATURE, CLOSE VALVE AT THERMOSTATIC VALVE TV-1 "B" PORT TO ENSURE FULL FLOW THROUGH THE RADIATORS.

I. WHILE CIRCULATING COOLING SYSTEM CLEANING SOLUTION, VALVE OFF AND SHUT DOWN EACH RADIATOR ONE AT A TIME SO THAT EACH RADIATOR GETS 4 HOURS OF STAND-ALONE CIRCULATION. DURING EACH 4 HOUR RADIATOR SHUT DOWN PERIOD LOCK/TAG OUT THE MOTOR, WRAP/TAPE MOTOR WATER TIGHT IN PLASTIC SHEET, DEGREASE AND PRESSURE WASH RADIATOR AIR SURFACES TO REMOVE ALL DEBRIS. AFTER WASHING BOTH RADIATORS CONTINUE TO RUN FOR AN ADDITIONAL 2 HOURS MINIMUM WITH BOTH RADIATORS IN SERVICE.

J. NOTE ANY DIFFERENCES OR CHANGES IN PRESSURE WHEN SWITCHING BETWEEN RADIATORS TO INDICATE POTENTIAL FLOW RESTRICTIONS.

K. TAKE OUTAGE, SHUT DOWN GENSETS AND LOCK/TAG OUT. TURN OFF PUMP P-HR1 AND OPEN VALVE TV-1 "B" PORT.

STEP 3: ENGINE COOLING SYSTEM DRAIN/WATER FLUSH/DRAIN

L. IMMEDIATELY DRAIN THE USED CLEANING SOLUTION FROM THE SYSTEM TO AVOID SETTLING OUT SOLIDS. DRAIN INTO DRUMS AND TURN OVER TO UTILITY.

M. FILL SYSTEM WITH FRESH WATER.

N. MANUALLY PARALLEL GEN#1, GEN#2 AND GEN#4. TURN ON PUMP P-HR1. BRING SYSTEM UP TO OPERATING TEMPERATURE THEN CLOSE VALVE TV-1 "B" PORT AND OPERATE FOR 2 HOURS MINIMUM. CAREFULLY INSPECT THE ENTIRE SYSTEM FOR ANY LEAKS WHILE FLUSHING. IF ANY LEAKS ARE DETECTED, SHUT OFF GENERATORS, REPAIR AS REQUIRED, AND BEGIN THIS STEP OVER.

O. TAKE OUTAGE, SHUT DOWN GENSETS AND LOCK/TAG OUT. TURN OFF PUMP P-HR1 AND OPEN VALVE TV-1 "B" PORT.

P. DRAIN THE WATER. INSPECT THE DRAINED WATER FOR SIGNS OF OIL, CONTAMINATE OR DIRT. IF RINSE WATER IS CONTAMINATED REPEAT THE FRESH WATER RINSE. IF THE WATER IS CLEAN, PROCEED TO STEP 4.

STEP 4: ENGINE COOLING SYSTEM MODIFICATIONS

Q. REPLACE EXISTING HOSE WITH NEW 1/2" SILICONE HOSE AND CLAMPS. INSTALL ON 1/2" BARB x 1/4" NPT BRASS KING NIPPLES.

R. INSTALL NEW LIQUID LEVEL SITE GAUGE WITH 1/2" THREADED BALL VALVE ISOLATION.

S. REPLACE EXISTING RADIATOR CAP WITH NEW OWNER FURNISHED 10 PSI PRESSURE CAP AND 2" NTP x MOTORAD THREAD ADAPTER.

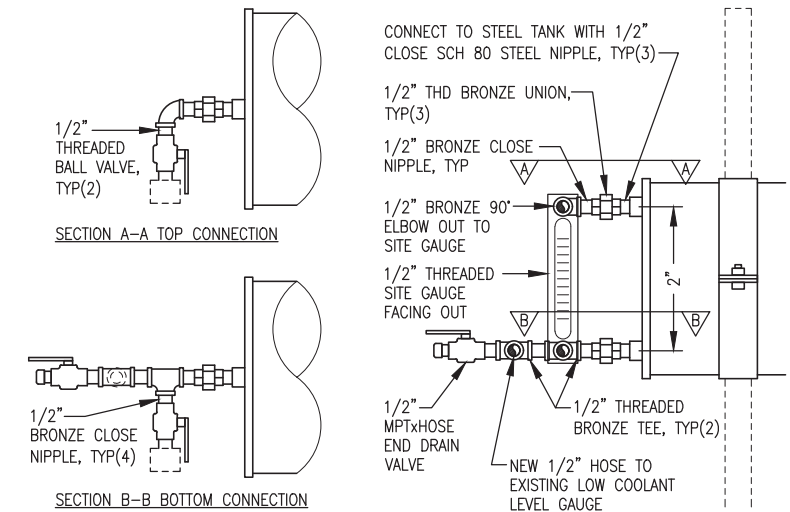
STEP 5: ENGINE COOLING SYSTEM FINAL FILL/COMMISSION

T. REINSTALL GEN#1, GEN#2 AND GEN#4 ENGINE THERMOSTATS WITH NEW GASKETS. SEE ENGINE-GENERATOR SCHEDULE SHEET M1 FOR ENGINE SERIAL NUMBERS.

U. FILL SYSTEM WITH NEW 60%/40% EXTENDED LIFE ETHYLENE GLYCOL SOLUTION.

V. MANUALLY PARALLEL GEN#1, GEN#2 AND GEN#4 TO PROVIDE COOLING SYSTEM FINAL TEST. TURN ON PUMP P-HR1. BRING SYSTEM UP TO OPERATING TEMPERATURE. CLOSE BYPASS VALVE AT TV-1. CAREFULLY PURGE ALL AIR FROM SYSTEM AND INSPECT THE ENTIRE SYSTEM FOR ANY LEAKS. ENSURE THAT COOLANT LEVEL IS ABOVE 50% ON EXPANSION TANK SITE GAUGE AND SYSTEM PRESSURE IS 8 PSIG MINIMUM AT CONCLUSION OF TEST.

W. MANUALLY SELECT ONE GENERATOR TO RUN AND SHUT DOWN OTHER GENERATORS.



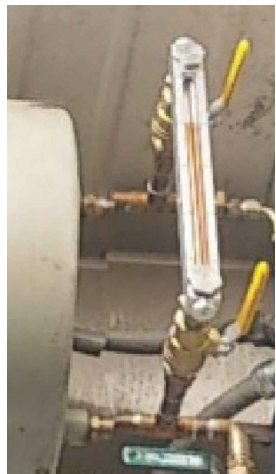
2
M2 EXPANSION TANK ET-1 SITE GAUGE REPLACEMENT
NO SCALE



3
M2 EXISTING RADIATOR VENT HOSE
NO SCALE



EXIST ET-1 HOSE & SITE GAUGE



EXAMPLE NEW SITE GAUGE

ISSUED FOR
CONSTRUCTION
AUGUST 2026



ALASKA ENERGY AUTHORITY

PROJECT: HUGHES POWER PLANT 2026 M&I PROJECT
PHASE 1 ENGINE COOLING SYSTEM FLUSH & REPAIR

TITLE: PIPING ISOMETRIC, DETAILS, & PROCEDURE

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD

DESIGNED BY: BCG

FILE NAME: HUGM&I26PH1

PROJECT NUMBER:

SCALE: AS NOTED

DATE: 8/10/26

SHEET: M2