Request for Information

Revised February 2024

State of Alaska
Department of Fish and Game
Division of Commercial Fisheries

Date Issued: November 5, 2026

RESEARCH VESSEL MEDEIA REPOWER

Introduction:

The Alaska Department of Fish and Game (ADF&G) is planning to replace the main propulsion engines and marine gears on the research vessel R/V Medeia. This Request for Information (RFI) describes the work we expect the project to include and asks qualified contractors to tell us how they would approach it, what equipment they would propose, how long it would take, and what it would cost on a budgetary basis.
This is a request for information only. It is not an Invitation to Bid or a Request for Proposals, no contract will be awarded from it, and responses are not binding on either party. The State will use the responses to settle on the engine and gear selection, finalize the scope, and set a budget and schedule before issuing a formal solicitation. The State is not responsible for any cost a respondent incurs in preparing a response.
We have tried to write this scope with enough detail that a contractor can price it with reasonable accuracy, while leaving the technical approach open. Where this document says what the result needs to be rather than how to get there, that is on purpose. We want the contractor's recommendation.

Background Information:

1. Response Information - What We Are Asking For

Please provide the following with your response. A short, direct response is preferred over a long one.

1. **Proposed equipment.** The main engine make, model, and rating, and the marine gear make, model, and ratio you would propose, with a brief explanation of why. Confirm the authorized parts and service dealer in Juneau, Alaska for both the engine and the gear (see 4.2).

2. **Approach.** A narrative, a few pages at most, describing how you would carry out the work described in Section 5, including where the work would be done, how the old engines would come out and the new ones go in, and required engineering.

3. **Schedule.** Equipment lead times from order to delivery, the total time the vessel would be out of service, and whether the target window and duration in 4.4 are realistic. If not, tell us what is.

4. **Budgetary pricing.** Completed Bid Schedule (separate document). Prices are understood to be budgetary estimates, not firm bids.

5. **Qualifications.** Comparable repowers you have completed in the last ten years, the naval architect or engineering firm you would use, and any OEM dealer or certification relationships that apply.

6. **Assumptions, exclusions, and alternatives.** Anything you assumed in pricing, anything you have excluded, and anything in this scope you would do differently. If you think part of this scope is unnecessary, or something is missing, say so.

7. **Questions.** Anything you need answered to respond more accurately. We would rather answer questions now than receive a padded number.

This RFI does not extend any rights to prospective vendors or obligate the state to conduct a solicitation or purchase any goods or services.

Interested parties must submit a written response **by November 26, 2026, at 2:00 p.m. AKST**. Responses must be sent via email to dfg.contracting@alaska.gov.

2. Vessel and Existing Installation

2.1 Vessel

- R/V Medeia, Official Number 653322. Steel research vessel built 1982 by Universal Iron Works, Houma, Louisiana, Hull No. 192.
- Length overall 110'-9", length between perpendiculars 108'-0", molded beam 26'-0", molded depth 12'-0".
- Twin screw, diesel-mechanical propulsion. Fixed-pitch propellers on 5-inch shafts.
- Home port Juneau, Alaska. Operated by ADF&G in Southeast Alaska for fisheries research, including surface trawl, crab, shrimp, and sablefish pot surveys, and sablefish longline surveys. The vessel is not USCG inspected; 46 CFR Subchapter T is used as guidance for material and workmanship.
- Operating profile for engine and gear selection: the vessel cruises at 8.5 to 9 knots between stations. Surface trawling is done at 3 to 4 knots under tow for extended periods. Pot hauling involves many hard (full throttle) starts and stops and frequent shifting in and out of gear, often for hours at a time. Longline surveys involve long periods at idle or in and out of gear. Approximately 1500 engine hours per year, split roughly 40 percent transit, 5 percent towing, 30 percent pot hauling, and 25 percent longline or idle. The engines and gears proposed should be suited to this mix, particularly the frequent clutch engagement and the extended light-load and idle time.

2.2 Existing Propulsion Machinery

- Main engines: two Detroit Diesel 16V-92 (naturally aspirated), nominally rated 625 hp at 1,800 rpm. Air start. Each engine has four exhaust outlets combined into an 8-inch exhaust line to its silencer. The starboard main was a remanufactured engine installed around 1996 and has approximately 22,000 hours and is due for a rebuild or replacement, and the port main is a remanufactured engine replaced in 2019 with approximately 7000 hours.
- Marine gears: two Twin Disc MG-530, ratio 4.04:1, SAE 0 housing. The gears will be replaced along with the engines.
- Shafting and propellers: 5-inch Aquamet shafts, retained. New propellers are being fitted during the vessel's spring 2027 dry docking and will be in service before the repower. The propellers are a lefthand and a righthand Nibral 60"x44", 4 blade, 5" bore, Work Horse style, heavy duty, .65 E.A.R., with puller holes. The repower must be matched to these propellers; re-propping is not part of this project.
- Control stations: two. The main station is in the wheelhouse. The second is on the wheelhouse aft deck and needs only propulsion controls (throttle and clutch) and an rpm readout for each engine. The engine room needs local control and monitoring panels for each engine. The existing ZF electronic engine and gear controls are 12 VDC; the existing control heads at both stations are compatible with current ZF control processors and could be retained. The control processors are original and should be assumed to need replacement.

- Electrical: 115 VAC and 12 VDC are available aboard. There is no 24 VDC system. If the proposed engines require 24 VDC for control, monitoring, or starting, that system is part of this project.
- Starting: compressed air start system with ship's service air. It is in service and could be tied into if the proposed engine supports air start; electric start is also acceptable. Air start is preferable, but largely depends on manufacturer's recommendation.
- Cooling: the main engine channel coolers are being replaced during the spring 2027 dry docking with Duramax Marine SC-424PFDP keel coolers, two per side: a 54-inch unit on the jacket water circuit and a 33-inch unit intended for the aftercooler and gear oil circuit. The cooler arrangement and engine room piping were engineered by Elliott Bay Design Group for a Cat C18 B-rated installation; the jacket water cooler was sized with margin so the existing Detroit Diesels can run on it until the repower. The 33-inch aftercooler coolers will be installed, filled, and blanked at their isolation valves awaiting the repower. The jacket water circuits run on water with Power Cool 2000 inhibitor and no antifreeze. New engines must be compatible with keel coolers and shall be filled with manufacturer's recommended coolant after disposal of old fluid and flushing.
- Exhaust: dry exhaust through existing silencers (8-inch connections) and stack. The piping from the silencers to the stack is expected to be reusable; the piping from the engines to the silencers will need to be redone to suit the new engine.
- Fire suppression: fixed CO2 system in the engine room. Engine room fans and all engine shutdowns are tripped by a pressure switch when the CO2 system discharges. The new engines must be tied into this shutdown the same way.
- Deck crane: North American Crane Model MCK-1240 knuckle boom, 40-foot reach, 10-ton rated, mounted on the main deck. The crane is available to the Contractor for handling equipment on and off the vessel.

2.3 Engineering Done to Date

Elliott Bay Design Group (EBDG) prepared a conceptual repower study for ADF&G in July 2026 (EBDG 26075-062-0, Rev. P0), using the Cat C18 as the study engine, and then engineered the keel cooler conversion described above. The study is included with this RFI for reference. It is conceptual only; it was prepared without a ship check and is not a design package. Its conclusions on engine room fit, exhaust, cooling, foundations, electrical, starting, shafting, and stability are a starting point for the Contractor's own engineering, not a substitute for it. EBDG is not engaged for the repower itself, and the Contractor will need to provide its own engineering.

3. Project Conditions

3.1 Engine and Gear Selection

The Owner has not selected a specific engine or gear and is asking respondents to propose one. The Cat C18 is preferred but the Cummins QSK19-M is considered acceptable and other common engines of similar size and class (e.g. John Deere and Detroit) would be considered. Respondents may propose either of these or another engine that meets the requirements below. The gear is to be matched to the engine and the existing propellers by the Contractor; the existing 4.04:1 ratio is a reference point, not a requirement.

Whatever is proposed must meet the following:

- Rated power and torque sufficient for the vessel's trawling and pot hauling operations as described in 3.1, at a continuous-duty or heavy-duty rating appropriate to that use, and comparable to the existing 625 hp per shaft. The Owner is not looking for more horsepower; it is looking for the right engine at a conservative rating. If a respondent believes a different displacement or rating would serve the operating profile better, the response should say so and explain why.

- Suited to extended operation at idle and light load without fouling, and to frequent clutch engagement. The gear proposed should be rated for the pot-hauling duty described in 3.1; if the respondent recommends a trolling valve or similar feature for low-speed work, it should be included and explained.
- Compatible with the retained shafting and the new propellers without re-propping. The Contractor is responsible for confirming this (see Work Item 1).
- Current US EPA marine emissions tier for the engine category at the time of order.
- An authorized parts and service dealer for the engine, and an authorized parts and service dealer for the gear, both located in Juneau, Alaska. Respondents shall name the dealers in their response. See 4.2 for option to include recommendations.
- Compatible with the installed keel coolers, or the response shall identify what additional cooling is needed and include it in the price.

3.2 Local Support

The vessel works out of Juneau and the Owner's crew does the routine maintenance. Having factory-authorized parts and service for both the engine and the gear available in Juneau is the single most important selection criterion for this project after suitability for the work. An engine that is otherwise a good fit but is supported only from Seattle or Anchorage does not meet the requirement, however if the Contractor has trouble meeting this requirement, the Owner is open to recommendations.

3.3 Location of the Work

The work may be done with the vessel afloat, pier-side, or may be hauled out at Contractor's discretion. The vessel will transit under her own power to the Contractor's facility; the work does not have to be done in Juneau. The Contractor shall provide a safe lay berth, shore power, gangway access, crane or lift service as needed beyond the ship's crane, and shop support for the duration of the work. If the Contractor chooses to haul out the vessel, it shall provide all necessary provisions to do so. A docking plan can be provided upon request. Respondents shall state in their response where the work would be done and whether the work will be done pier-side or in drydock.

3.4 Schedule

The Owner's preferred window for the work is between November 2027 and March 2028, with the vessel back in service no later than March 31, 2028. The Owner's target is for the vessel to be out of service for approximately 30 days, not counting transit to and from the Contractor's facility. The Owner recognizes that this is an aggressive target and that equipment lead times will govern when the work can start. Respondents shall state the lead time for the proposed engines and gears, the duration they would need the vessel, and what, if anything, could be done to shorten it. A longer duration will not disqualify a response; an unrealistic one is not helpful.

3.5 Access and Removal Path

The Owner's preferred path for removing the old engines and gears and landing the new ones is through the steel main deck directly above the engine room, using the ship's deck crane. The Contractor shall cut temporary openings in the main deck, protect the openings and the spaces below while they are open, and on completion restore the deck to its original scantlings, watertight, with coatings matching the surrounding deck. Any deck equipment, fittings, piping, or wiring in way of the opening shall be removed and reinstalled by the Contractor. The Contractor is responsible for the lift plan and rigging for all lifts, including any lifts made with the ship's crane, and for confirming that the crane's load chart covers the loads at the required reach. The crane load chart will be provided. If the Contractor prefers a different removal path, the response should say so and explain why.

3.6 Owner-Furnished Items

Nothing is Owner-furnished for this project except the installed keel coolers and the existing systems described in Section 3. The Contractor shall provide all engines, gears, controls, electrical equipment, exhaust components,

foundations, piping, wiring, consumables, and everything else required to deliver a complete, working installation. The Owner will provide vessel drawings, pictures, the EBDG study, the keel cooler drawings, and access to the vessel for ship checks.

3.7 Old Equipment

The existing main engines, marine gears, and any other equipment removed and not reused become the property of the Contractor on removal. The Contractor is responsible for removing them from the vessel and from the Owner's custody, and for their retention, resale, or disposal. Respondents may reflect any salvage value in their pricing; the Bid Schedule has a line for it.

3.8 Standards and Workmanship

Work shall be done to good marine practice and to the engine, gear, and equipment manufacturers' installation requirements. 46 CFR Subchapter T applies as guidance for material and workmanship. Structural welding shall meet AWS D1.1; piping hangers shall follow ASTM F708; electrical work shall follow ABYC E-11 as applicable to commercial vessels and the engine manufacturer's wiring requirements. All hot work shall be done with fire blankets or shields protecting adjacent equipment, tankage, and wiring, with a fire watch posted and extinguishers at hand. The engine room day tank and the fuel tanks forward of the engine room are close to this work; the Contractor shall identify any tanks that need to be emptied or gas-freed and coordinate that with the Owner.

4. Work Item List

Work Item 1: Engineering, Ship Check, and Design

Work Item 2: Main Engines, Marine Gears, Controls, and Associated Equipment

Work Item 3: Removal of Existing Main Engines and Marine Gears

Work Item 4: Installation of New Main Engines, Marine Gears, Controls, and Associated Systems

Work Item 5: Dock Trials, Sea Trials, and Commissioning

Work Item 6: Stability Test (Inclining Experiment) and Updated Stability Book

Work Item 7: Documentation, Manuals, Spares, and Crew Training

Work Item Detail

The Contractor shall provide a budgetary price for all labor, material, equipment, and engineering to accomplish each of the following work items.

1: Engineering, Ship Check, and Design

1.1 Scope

The Contractor shall provide all engineering needed to select, integrate, and install the proposed engines and gears in the vessel, carry out the detailed assessments identified in the EBDG conceptual study, and produce the drawings and calculations needed to build the installation. The Contractor shall engage a naval architect or marine engineer for this work; the naval architect shall be a licensed professional engineer or shall have documented experience with main engine repowers on commercial vessels of comparable size.

1.2 References

- EBDG 26075-062-0, Repowering Conceptual Study, R/V Medeia, Rev. P0 (July 2026)

- EBDG 26075-256-2, Fresh Water Cooling System Modifications (as-built revision to be provided after the 2027 dry docking)
- Duramax Marine SC-424PFDP keel cooler installation drawing and manual
- U192-MI Shafting Installation; propeller drawings for the new propellers
- U192-S1 General Scantling; U192-S4, U192-S5 Transverse Frames; U184-56 Transverse Frames and Longitudinal Section
- U193-3 Lines; C2412-1 Hydrostatic Curves; C2412-2 Cross Curves; existing stability booklet
- Existing exhaust and silencer drawings; existing wiring diagrams as available

1.3 Requirements

Ship check. The Contractor shall conduct a ship check of the engine room, exhaust routing, deck above the engine room, control stations, and electrical distribution before finalizing the design. The Owner will make the vessel available in Juneau or at a mutually agreed location. Vessel drawings on file date from construction and do not reflect all later changes; the Contractor shall field-verify anything the design depends on.

Propulsion match. The Contractor shall confirm, with calculations, that the proposed engine rating, gear ratio, and the existing propellers and shafting are a sound match for the operating profile in 3.1, including power absorbed by the propellers across the operating range, shaft strength against the proposed torque, and reduction gear input ratings. The Contractor shall obtain a torsional vibration analysis of the complete driveline from the engine or gear manufacturer and shall confirm engine and gear rotation and flywheel housing compatibility with the manufacturers.

Foundations. The Contractor shall design new engine and gear foundations, or modifications to the existing ones, to carry the proposed equipment at the correct height and alignment to the existing shaft line and tie properly into the vessel's structure. Foundation drawings shall show material, scantlings, weld details, and attachment to existing structure.

Exhaust. The Contractor shall design the exhaust from the engine outlet to the existing silencers, including expansion joints and supports, and shall produce a backpressure calculation for the complete system showing that it meets the engine manufacturer's limit. The Contractor shall confirm that the existing silencers and stack piping are suitable for reuse, or shall include their replacement.

Cooling. The Contractor shall confirm that the installed keel coolers have the capacity and arrangement required for the proposed engine's jacket water circuit and for its aftercooler and gear oil circuit, using the engine manufacturer's heat rejection data and the cooler manufacturer's ratings. If they do not, the Contractor shall identify what is needed and include it in Work Item 4. The engine room piping between the coolers and the engines shall be designed to suit the new equipment.

Ventilation and combustion air. The Contractor shall evaluate the existing engine room ventilation against the proposed engines' combustion air and heat rejection requirements and shall identify any changes needed to fans, ducting, or openings.

Fuel and lube. The Contractor shall confirm that the existing fuel supply and return piping, filtration, and day tank arrangement are suitable for the proposed engines' fuel pumps and return flows, and shall identify any changes needed.

Electrical, controls, and starting. The Contractor shall design the electrical installation required for the proposed engines, including a 24 VDC system if one is required; local control and monitoring panels in the engine room; full engine monitoring and propulsion controls in the wheelhouse; propulsion controls and rpm readouts at the wheelhouse aft deck station; integration with the existing or replacement ZF propulsion controls at both stations; integration with the CO2 shutdown; and either tie-in to the existing air start system or an electric starting system with batteries and charging.

Weights and stability. The Contractor shall maintain a weight and center-of-gravity log of everything removed from and added to the vessel under this project and shall provide a preliminary stability check before the work begins so that any ballast changes can be planned rather than discovered.

Submittals. The Contractor shall submit the design drawings, calculations, and equipment data to the Owner for review before ordering major equipment and before starting fabrication. The Owner's review is for conformance with this scope and does not relieve the Contractor of responsibility for the design. Regulatory plan approval is not required.

2: Main Engines, Marine Gears, Controls, and Associated Equipment

2.1 Scope

The Contractor shall furnish two new main engines and two new marine gears meeting Section 4.1, with all accessories, controls, and associated equipment needed for a complete installation.

2.2 Requirements

The supply shall include, at a minimum: two new main engines with marine accessories as required for the installation; two new marine gears with ratios matched to the engines and propellers, with output flanges or couplings to suit the existing shaft couplings; flexible couplings, mounts, and driveline hardware; local control and monitoring panels in the engine room, a monitoring display in the wheelhouse, and rpm readouts at the wheelhouse aft deck station; propulsion control equipment, either new ZF control processors compatible with the existing control heads or a complete replacement control system at both control stations; the 24 VDC system, batteries, chargers, and distribution if required; starting equipment; exhaust components from the engine to the silencers; and all piping, valves, hangers, wiring, and consumables required under Work Item 4.

Equipment shall be new, current production, and covered by the manufacturer's standard marine warranty. Respondents shall state the warranty terms for the engines and gears and the Contractor's warranty on workmanship. The Owner expects the engine and gear manufacturers' representatives to be involved in commissioning (see Work Item 5).

The Contractor shall coordinate equipment delivery with the Owner's schedule and shall receive, store, and protect the equipment until installation. The Owner would like to understand what is driving the lead time for the proposed engines and whether a deposit or early order would improve it.

3: Removal of Existing Main Engines and Marine Gears

3.1 Scope

The Contractor shall remove both existing main engines and marine gears from the vessel, along with the engine-side exhaust, piping, wiring, foundations, and controls that will not be reused.

3.2 Requirements

The Contractor shall drain the engines, gears, and associated systems; handle and dispose of all fuel, lube oil, coolant, and other fluids in compliance with applicable environmental regulations; disconnect the shaft couplings, exhaust, cooling, fuel, air, electrical, and control connections; and remove the engines and gears from the engine room through the deck opening described in 4.5 or another path proposed by the Contractor. The Contractor shall remove the existing foundations to the extent needed for the new installation, remove any piping, ducting, wiring, and brackets that will not be reused, and leave the affected areas clean and ready for new work. Disturbed steel shall be prepared and primed. The jacket water keel coolers, aftercooler keel coolers, generator keel coolers, and their shell valves shall remain in place and shall be protected throughout the work.

Before any equipment leaves the vessel, the Contractor shall record the weight of each major item removed, with its location in the vessel, for the stability log under Work Item 1. The removed engines, gears, and other equipment become the property of the Contractor as described in 4.7.

4: Installation of New Main Engines, Marine Gears, Controls, and Associated Systems

4.1 Scope

The Contractor shall install the new engines, gears, controls, and all associated systems in accordance with the Contractor's engineering under Work Item 1 and the manufacturers' installation requirements, and shall deliver a complete propulsion installation ready for trials.

4.2 Requirements

Deck opening. Cut the temporary deck openings, protect it and the spaces below while they are open, and restore the deck on completion as described in 4.5.

Foundations and alignment. Fabricate and install the new foundations. Set the engines and gears, align the gears to the existing shaft line within the manufacturers' tolerances, fit and secure the couplings, and record the final alignment readings. Chocking, shimming, and fasteners shall be as specified by the manufacturers.

Exhaust. Fabricate and install the exhaust from the engines to the existing silencers, with expansion joints, supports, insulation or lagging where required, and any changes to the silencers or stack piping identified under Work Item 1.

Cooling. Connect the engines and gears to the installed keel coolers, including placing the aftercooler keel coolers in service, with new engine room piping, isolation valves, flexible connections, expansion tanks with low-level alarms, vents, and drains. Flush, fill with the coolant the engine manufacturer specifies, pressure test, and bleed each circuit. Any additional cooling identified under Work Item 1 is included here.

Fuel and lube oil. Connect the engines to the fuel supply and return system with any changes identified under Work Item 1, including filtration and flexible connections. Provide the initial fill of lube oil and gear oil.

Electrical, controls, and monitoring. Install the 24 VDC system if required; the local control and monitoring panels in the engine room; the monitoring display and propulsion controls in the wheelhouse; and the propulsion controls and rpm readouts at the wheelhouse aft deck station. Tie the engine shutdowns and engine room fans into the existing CO2 discharge pressure switch so that a discharge stops the engines and fans as it does now. Install the starting system, either tied into the existing air start system or electric with batteries and charging. All wiring shall be new, marine grade, properly supported, labeled, and terminated.

Ventilation. Make any changes to engine room ventilation identified under Work Item 1.

Close-up. Reinstall deck plates, handrails, insulation, and anything else disturbed. Prepare and paint all disturbed steel with anti-corrosive primer and finish coats to match the surrounding surfaces. Leave the engine room clean.

5: Dock Trials, Sea Trials, and Commissioning

5.1 Scope

The Contractor shall commission the new installation and prove it at the dock and at sea, with the engine and gear manufacturers' representatives present for commissioning as required to validate the warranty.

5.2 Requirements

The vessel shall not operate under her own power until dock trials are complete. Dock trials shall include commissioning of the engines and gears by the manufacturers' representatives, verification of all alarms and shutdowns including the CO2 shutdown, operation of the propulsion controls from both control stations and the engine room panels, and verification of the cooling, fuel, exhaust, and electrical systems.

Sea trials shall be conducted with the Contractor's qualified mechanic and the manufacturers' representatives aboard, under the direction of the vessel's Master. Sea trials shall include not less than four hours of operation at rated load, with engine and gear parameters, exhaust temperatures, jacket water and aftercooler circuit inlet and

outlet temperatures, seawater temperature, shaft speed, and vessel speed recorded at not more than 30-minute intervals, plus maneuvering, crash reversal, repeated clutch engagement at low speed to simulate pot hauling, extended idle, and control response from both stations. The Contractor shall confirm that the engines reach rated speed at full load with the propellers fitted, and that alignment, vibration, and exhaust backpressure are within the manufacturers' limits. A written trials report with the recorded data shall be delivered to the Owner within ten business days.

If trials show that the engines cannot reach rated speed or are otherwise loaded outside the manufacturer's limits, the Contractor shall identify the cause and propose the correction. The Owner does not expect to re-prop the vessel; a match to the new propellers is a requirement of Work Item 1.

6: Stability Test (Inclining Experiment) and Updated Stability Book

6.1 Scope

The Contractor shall conduct a stability test (lightweight survey and inclining experiment) of the vessel after the repower is complete and deliver an updated stability book, using the naval architect engaged under Work Item 1. The existing stability book is dated, does not reflect the trawl gantry added since it was written, and will not reflect the keel cooler work done in 2027 or the machinery changes under this project.

6.2 References

- ASTM F1321, Standard Guide for Conducting Stability Tests (Lightweight Survey and Inclining Experiment)
- 46 CFR Part 170, Subpart F (as guidance; the vessel is not USCG inspected)
- Existing stability booklet; U193-3 Lines; C2412-1 and C2412-2 Hydrostatic and Cross Curves
- Weight and location report for steel removed and coolers added during the 2027 dry docking (to be provided by the Owner)

6.3 Requirements

Hull model. No digital hull model of the vessel exists. The naval architect shall develop one from the lines plan and hydrostatics on file, verified against the vessel, and shall capture the current profile of the house, stacks, and gantry for windage. The Contractor shall state in its response how it would verify the hull form (field measurement, scan, or otherwise) and whether that could be done while the vessel is at the Contractor's facility for the repower.

Test. Not less than fourteen days before the test, the naval architect shall submit a written test procedure to the Owner for review. The test shall be conducted afloat at a calm, sheltered berth, after all other work under this project is complete, with the naval architect directing in person and the Owner's representative and the vessel's Master present. The Contractor shall provide certified test weights, the means to shift them, personnel, and instruments. The Owner will prepare the vessel to the condition the procedure requires.

Deliverables. Within thirty days of the test, the Contractor shall deliver the inclining experiment report and an updated stability book that applies the new lightship to the vessel's operating conditions (not more than six conditions identified by the Owner), including trawl, pot-hauling, and longline loads and the gantry, with free surface corrections, righting arm curves, and operating guidance for the Master. The book shall be prepared in a form suitable for later submission to the U.S. Coast Guard if the Owner chooses, though Coast Guard review is not part of this work.

7: Documentation, Manuals, Spares, and Crew Training

7.1 Scope

The Contractor shall deliver the documentation, manuals, spare parts, and training needed for the Owner's crew to operate and maintain the new installation.

7.2 Requirements

As-built drawings. The Contractor shall deliver as-built drawings of the foundations, exhaust, cooling piping, fuel piping, electrical and control wiring, and the deck restoration, in PDF and native CAD format, marked up to reflect the installation as completed.

Manuals. Operation, maintenance, and parts manuals for the engines, gears, controls, monitoring equipment, and any other equipment furnished, in print and electronic form, along with the commissioning records, alignment records, torsional vibration analysis, and trials report.

Spares. A spares package covering the manufacturers' recommended spares for one year of operation for the engines and gears, including filters, belts, impellers, gaskets, sensors, and the like, plus any special tools required for routine service. Respondents shall list the spares package proposed and price it as a separate line on the Bid Schedule.

Training. Not less than one day of hands-on familiarization for the vessel's crew on the new engines, gears, controls, and monitoring system, provided by the manufacturers' representatives or the Contractor's qualified personnel, at the Contractor's facility before the vessel departs or aboard during sea trials.

6. Reference Material Provided with this RFI

- EBDG 26075-062-0, Repowering Conceptual Study, Rev. P0
- EBDG 26075-256-2, Fresh Water Cooling System Modifications, latest revision
- Duramax Marine SC-424PFDP keel cooler installation drawing
- U192-MI Shafting Installation; U192-S1 General Scantling; U192-S4 and U192-S5 Transverse Frames; U184-56 Transverse Frames and Longitudinal Section; S2-192 Small Vessel Transverse Frames
- U193-3 Lines; C2412-1 Hydrostatic Curves; C2412-2 Cross Curves; existing stability booklet
- Existing silencer and exhaust drawings; Detroit Diesel engine data
- Deck crane load chart
- Engine room photographs

Additional drawings and vessel information will be provided on request. Respondents are encouraged to visit the vessel in Juneau; contact the Owner's representative to arrange it.

Procurement Officer contact information:

All questions must be directed to the person listed below writing via email.
Department of Fish and Game
Attention: Procurement
PO Box 115526 Juneau, AK 99811-5526
Phone: 907-465-6178
Email: eric.verrelli@alaska.gov

Notice to Vendors:

Pursuant to Administrative Order 352, (a) any person or business determined to support or participate in a boycott of the State of Israel will be disqualified from any procurement related to this Request for Information; and (b) the support of or participation in a boycott of the State of Israel by a person or business contracting with the State of Alaska under AS 36.30 constitutes grounds for termination of the contract.

Administrative Order 352 does not apply to a contract if the person or business has fewer than 10 employees; or the amount to be paid under the contract, excluding renewals and options available under the contract, is less than $100,000.