THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Environmental Conservation
DIVISION OF WATER
Wastewater Discharge Authorization Program

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March 19, 2025

Port of Alaska
Attn: Steve Ribuffo, Director
2000 Anchorage Port Road
Anchorage, AK 99501

Re: Port of Alaska, Cargo Terminal Replacement Project
POA-2003-00502-M21 v1.0, Knik Arm

Mr. Ribuffo,

In accordance with Section 401 of the Federal Clean Water Act and provisions of the Alaska Water Quality Standards, the Department of Environmental Conservation (DEC) is issuing the enclosed water quality certification with conditions that the discharge from the proposed project will comply with water quality requirements for dredging and/or fill material in waters of the U.S., authorized by an Army Corps of Engineers (USACE) permit/license POA-2003-00502-M21 - *Cargo Terminals Replacement* project.

A person authorized under a provision of 18 AAC 15 may request an informal review of a contested decision by the Division Director in accordance with 18 AAC 15.185 and/or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. See DEC's "Appeal a DEC Decision" web page https://dec.alaska.gov/commish/review-guidance/ for access to the required forms and guidance on the appeal process. Please provide a courtesy copy of the adjudicatory hearing request in an electronic format to the parties required to be served under 18 AAC 15.200. Requests must be submitted no later than the deadline specified in 18 AAC 15.

By copy of this letter, we are advising the U.S. Army Corps of Engineers of our actions and enclosing a copy of the certification for their use.

If you have any questions regarding the attached certification, please contact Willow Weimer at 907-269-6096, dec-401cert@alaska.gov.

Sincerely,

N Waldo

Nick Waldo
Program Manager, Storm Water and Wetlands

Enclosure: 401 Water Quality Certificate

cc: (with encl.)
Michiel Holley, HDR
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STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Water Quality Certification

In accordance with Section 401 of the Federal Clean Water Act (CWA) and the Alaska Water Quality Standards (18 AAC 70), a water quality certification with conditions is issued to the Port of Alaska, Attn: Steve Ribuffo, 2000 Anchorage Port Road, Anchorage AK 99501 for a permit/license to be issued by Army Corps of Engineers (USACE), reference POA-2003-00502-M21 *Cargo Terminals Replacement Project.*

Based upon the review of the federal application, readily available water quality-related materials, and certification request[1] in accordance with the CWA § 121.5(b) and (c), and 121.7 (c), DEC certifies that if the permittee complies with the terms and conditions imposed by the permit and the conditions set forth in this water quality certification, then it is reasonable for DEC to conclude that the activity will comply with water quality requirements, including applicable requirements of the CWA §§ 301, 302, 303, 306, and 307, Alaska's Water Quality Standards (WQS, 18 AAC 70) and other appropriate water quality requirements of state law.

The scope of certification is limited to the water quality-related impacts of the activity subject to the Federal license or permit (40 CFR 121.3, 18 AAC 15.180). Public notice of the application for this certification was given as required by 18 AAC 15.180 in the DEC Public Notice POA-2003-00502-M21 posted from 08/07/2024 to 09/07/2024.

Project Purpose, Description, and Location

Project Name: Cargo Terminal Replacement Project

Dates of the proposed activity are planned to begin and end: 03/24/2025 to 03/31/2029

Location: The proposed activity is located within Section 7, T. 13N, R. 3W, Seward Meridian, in Anchorage, Alaska. Project Site (Latitude, Longitude): 61.240000, -149.88833.

With potential discharge location(s) as follows: Upland expansion 61.238889, -149.887778, Excavated material 61.240000, -149.913000 Armor rock shoreline 61.239722, -149.887222.

Purpose: The purpose of the General Cargo Terminals Replacement project (the Project) is to replace Anchorage's aging docks and related infrastructure before it fails, to: improve operational safety and efficiency; accommodate modern shipping operations; and improve resiliency – to survive extreme seismic events and sustain ongoing cargo operations.

Description: The overall scope of the project includes:

- Ground improvements like deep soil mixing (DSM) for shoreline stabilization
- Shoreline expansion and protection
- General cargo terminal (new Terminals 1 and 2) construction
- Demolition of the existing Petroleum, Oil, and Lubricants Terminal 1 (POL1) and general cargo terminals (Terminals 1, 2, and 3)
- Onshore utilities and storm drain outfall replacement

The Port of Alaska proposes the removal of existing infrastructure and the construction of a newly configured general cargo terminals including ground improvement for shoreline stabilization, shoreline expansion and protection, construction of general cargo terminals 1 and 2, demolition of the existing

[1] Reference EDMS Submission Ref Nbr: HPR-W6RK-711PZ, Rcv 3/13/2023 11:45:00 AM

petroleum, oil, and lubricants terminal 1 (POL1), demolition of general cargo docks terminals 1, 2, and 3, construction of onshore utilities, and replacement of storm drain outfall.

Ground improvements for shoreline stabilization would consist of installing five (5) work pads at the site of each of the five trestle abutments to mitigate the potential for slope failure. Ground improvements would create a block of treated soil extending from near the final surface grade down through the in-situ soil approximately 85 feet below the crest of the foreshore slope to the top of the Bootlegger Cove Formation clay layer. The five work pads would consist of a total of 61,100 cubic yards of fill material below the High Tide line into 3.6 acres of waters of the U.S.

Shoreline expansion and protection would consist of the excavation of approximately 50,000 cubic yards of silt material to be disposed of offshore in the Anchorage Harbor Open Water Disposal Site. The silt material is not suitable for shoreline protection and would be replaced by discharging 60,000 cubic yards of rip-rap material below the High Tide line into 3.7-acres of waters of the U.S. at select areas behind Terminals 1, 2, and 3 to protect the upland container storage area.

Installation of new Terminals 1 and 2 would be pile-supported structures and would be constructed as adjoining wharves on a continuous berth line located parallel and approximately 140 feet seaward of existing Terminals 1, 2, and 3. The continuous wharf face would be fixed at +44 ft mean-low-low-water (MLLW) and would provide flexibility for military, cruise/passenger ships, and cargo functions. Terminal 1 would consist of an 870-foot-long by 120-foot-wide wharf and would be accessed from shore by two (2) 36-foot-wide trestles. The southern trestle would be 270 feet long, and the northern trestle would be 318 feet long. A 144-inch-diameter mooring dolphin and catwalk would be constructed on the southern end of the terminal to help secure and control vessel movements while berthed. Terminal 1 wharf would be supported by 139 - 72-inch-diameter piles. The terminal would also include structural, in-deck, and surface features to support three cranes. Utilities, including electrical power and water, would be installed for terminal operations, and connected to the existing public utility infrastructure. Lighting, communications, and signal equipment would be added to support the terminal.

Terminal 2 would consist of a 938-foot-long by 120-foot-wide wharf with three (3) access trestles each approximately 300-foot-long. The southern and northern access trestles would be 36 feet wide. The middle trestle would be 60-foot-wide to provide an additional emergency vehicle access lane. A 144-inch-diameter mooring dolphin and catwalk would be constructed on the northern end of the terminal to help secure and control the movements of the vessels while berthed. Terminal 2 wharf would be supported by 145 - 72-inch diameter piles. The terminal would include structural, in-deck, and surface features to support roll-on, roll-off, and load-on, load-off operations (rail-mounted gantry cranes and associated appurtenances). Power, lighting, communications, signal infrastructure, and water utilities would be installed to support terminal operations. The two Terminal 1 trestles would be supported by 21 - 72-inch diameter piles and 6 - 48-inch diameter piles. The 48-inch diameter piles would be installed in the dry. The three (3) access trestles for Terminal 2 would be supported by 40 - 72-inch diameter piles and 10 – 48-inch-diameter piles. Sediment inside the first four (4) hollow steel piles per row of the access trestles would be hydraulically removed to a depth of 20 to 25-ft below the mud line to allow for placement of reinforced concrete to start below the mud line and continue to the top of the pile once the installation is complete. Approximately 1,000 cubic yards of fill material would be removed in this manner and discharged below the High Tide line as side cast over a 4-acre area dispersed via strong tidal currents.

Construction of the wharves and trestles would require the installation and removal of temporary steel pipe piles, including template piles, and the installation of permanent steel pipe piles. During construction, approximately 690 – 24 to 36-inch-diameter temporary piles will be used to anchor templates for the driving of permanent piles and to support temporary access trestles. Vibratory and impact hammers would

be used for the installation of the larger, permanent piles. Vibratory drivers would be used for the installation and removal of the temporary piles. Where conditions are possible, temporary, and permanent steel pipe piles would be installed or removed in the dry, depending on construction sequencing and tide heights. During pile installation, it may become necessary to remove relic anode sleds. The old anode sleds are currently buried in the sediment behind the existing terminals. If an old sled is encountered in the footprint of a new pile to be installed, the anode sled will be excavated and removed. The excavated anode sled(s) would be hauled to an appropriate disposal location in the uplands. All other relic anode sleds would be abandoned in place. After construction of the new Terminals 1 and 2 are complete the remaining existing Terminals 1, 2, and 3 and POL1 platforms and trestles would be removed. All temporary work structures would be removed. Existing and temporary piles would be cut and removed or left in place to avoid/minimize potential impacts on marine mammals. Demolition would take place above the water, and demolished decking, pipes, and other superstructure materials would be contained before they fall into the water following best management practices. Demolished materials would be removed by barge or truck and stored or disposed of properly in an approved landfill or salvage yard.

Onshore utilities and utility connections would be removed and replaced, including electrical, water, and gas. Additionally, shore stabilization activities would require the removal and replacement of up to four (4) existing storm drain outfalls and associated maintenance holes.

Additional Information: Other authorizations needed as identified by the applicant include an Incidental Take Authorization from the National Marine Fisheries Service, a Flood Hazard Permit from the Municipality of Anchorage, and an Army Corps of Engineers 404 Permit. The applicant states that they plan to pursue the demolition of Terminal 3, a separate and complete project from the proposed work, as the last phase of the Port of Alaska Modernization Project (PAMP) in 2032 or later.

Special Area Designation: The project is located within the Port of Alaska and Anchorage Harbor.

Anchorage Harbor is a federally maintained harbor in the Municipality of Anchorage, Alaska, near the confluence of the Knik Arm and Turnagain Arm of Cook Inlet and is home to the Port of Alaska (Port), the state of Alaska's primary commercial port. Anchorage Harbor was authorized in 1958 and the U.S. Army Corps of Engineers (USACE) has dredged Anchorage Harbor annually since 1965 to maintain adequate depths for shipping. Dredging typically begins in April and ends in October. The harbor's main Federal feature is an authorized harbor depth of -45 feet mean lower low water (MLLW) along 10,860 feet of the Port. The project is currently maintained at -35 feet MLLW as the funding for dredging to -45 feet mean lower low water has not been appropriated by Congress. Dredged materials are transported to the Anchorage Harbor in-water disposal site located 3,000 feet above the dock face. Annual maintenance dredging volumes vary substantially and have approached 2 million cubic yards.

Applicant Proposed Mitigation: The applicant proposes the following mitigation measures to avoid, minimize, and compensate for impacts to waters of the United States from activities involving discharges of dredged or fill material.

a. Avoidance: Avoidance of impacts to waters of the United States (U.S.) was limited by geographic and logistic constraints. Given the physical requirements of locating a port on a waterbody, complete avoidance of waters of the U.S. was not feasible for the Cargo Terminals Replacement (CTR) Project.

   Upland disposal of the excavated material from the proposed upland expansion area and augured material from the trestle piles was considered but is not possible because the Port of Alaska (Port) does not have physical space for permanent disposal of this material. To move that amount of material (31,000 cubic yards) to an offsite upland disposal site will require more than 2,000 dump truck loads.

Offshore disposal will require approximately 16 barge loads, making this option much more efficient and less costly, and reducing air emissions from diesel engines.

b. Minimization: Development of the Project included analysis of 25 alternatives for marine terminal development. These alternatives included redirecting Port facilities to other locations, relocating the Port, or expanding the Port at its current location. In addition to location alternatives, multiple design alternatives were also analyzed, including various pile sizes and types and foundation types. Constructability, minimizing environmental impacts, and addressing cost constraints were included in the screening criteria used to identify the proposed Project's preferred alternative.

   Fill placement and work within the waters of the U.S. was minimized through the use of a pile-supported structure for the cargo terminals instead of a coastline extension, which would have required extensive fill within the intertidal area to bring the area up to a usable grade. The number of piles was minimized to that necessary for constructing a seismically resilient replacement dock while maximizing the life of the structure to minimize the need for future in-water work. During further design and construction work planning, the following changes were made to the Project:

   - Potential emergency access trestles have been removed from the current design. Analysis results during the original design showed that the permanent access trestle would suffer significant damage after the design earthquake event, and the extensive repairs that would be required could not be achieved in a 7-day period. The inclusion of emergency trestles that could be rapidly deployed after an earthquake event were included in the original design to support the rapid repair requirement. The current design instead includes ground improvement through soil replacement with cementitious materials using deep-soil mixing within the near-shore area. This ground improvement mitigates earthquake damage, eliminating the need for emergency trestles. Eliminating the emergency access trestles reduces the Project footprint by up to 16 48-inch piles.

   - By modifying the current Project design to use 72-inch-diameter piles (instead of 48-inch-diameter piles), the total number of permanent piles is reduced from more than 752 to 354.

   - Additional modifications to the design include a new dolphin design composed of 144-inch-diameter monopiles. This new design eliminates the need for 16 of the deepest driven piles used in the previous

c. Mitigation: Due to the described avoidance and minimization measures, and the CTR Project not impacting wetlands, the Port does not propose compensatory mitigation for impacts to waters of the U.S. at this time. If USACE determines that compensatory mitigation is required, then the Port will purchase credits from an approved mitigation bank or in-lieu fee sponsor.

Antidegradation Analysis Finding

Pursuant to the Department's Antidegradation Policy and Implementation Methods at 18 AAC 70.015 and 18 AAC 70.016, DEC finds that the project would comply with the requirements for Tiers 1 and 2 regarding water quality impacts to receiving water immediately surrounding the dredge or fill material pursuant to the Corps evaluation and findings of no significant degradation under 33 U.S.C. 1344 and under 40 CFR 230. The use of appropriate best management practices and erosion and sediment control measures would adequately protect the existing water uses and the level of water quality necessary to protect existing uses. Any potential water quality degradation is expected to be temporary, limited, and necessary to accommodate important social and/or economic development in the area.

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

The Department of Environmental Conservation (DEC) reviewed the application and certifies that there is reasonable assurance that the proposed activity, as well as any discharge that may result, will comply with applicable provisions of Section 401 of the CWA and the Alaska Water Quality Standards (18 AAC 70) provided the permittee complies with the terms and conditions imposed by the permit/license and that the following additional measures are adhered to.

Pursuant to 18 AAC 70.020(a) and the Toxics and Other Deleterious Organic and Inorganic Substances in 18 AAC 70.020(b), the following conditions are designed to reduce pollutants from construction activity to ensure compliance with the applicable water quality standards.

Pollutants/Toxics

1. Fuel storage and handling activities for equipment must be sited and conducted so there is no petroleum contamination of the ground, subsurface, or surface waterbodies.
2. During construction, spill response equipment and supplies such as sorbent pads shall be available and used immediately to contain and clean up oil, fuel, hydraulic fluid, antifreeze, or other pollutant spills. Any spill amount must be reported in accordance with Discharge Notification and Reporting Requirements (AS 46.03.755 and 18 AAC 75 Article 3). The applicant must report the spill to the DEC Area Response Team office online at https://reportspills.alaska.gov/; or via phone: at 1-800-478-9300 or 1-907-269-0667. For Federal reporting requirements, see the National Response Center website: https://nrc.uscg.mil/. For more information, see the DEC Spill Information website: https://dec.alaska.gov/spar/ppr/spill-information/reporting/.
3. Construction equipment shall not be operated below the ordinary high-water mark if the equipment is leaking fuel, oil, hydraulic fluid, or any other hazardous material. Equipment shall be inspected daily for leaks. If leaks are found, the equipment shall not be used and pulled from service until the leak is repaired.
4. Fill material (including dredge material) must be clean soil, sand, gravel, or rock, free from petroleum products and toxic contaminants in toxic amounts.

Turbidity, Erosion and Sediment Control

5. Runoff discharged to surface water (including wetlands) from a construction site disturbing one or more acres must be covered under Alaska's General Permit for Storm Water Discharges from Large and Small Construction Activities in Alaska (CGP, AKR100000, 18 AAC 83). The CGP requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For projects that disturb more than five acres, this SWPPP must also be submitted to DEC prior to construction along with the Notice of Intent (NOI). For more information see DEC's website for the CGP at https://dec.alaska.gov/water/wastewater/stormwater/construction, or call 907-269-6285.
6. Excavated or fill material, including overburden, shall be placed so that it is stable, meaning after placement the material does not show signs of excessive erosion. Indicators of excess erosion include gullying, head cutting, caving, block slippage, material sloughing, etc. The material must be contained with siltation best management practices (BMPs) to preclude reentry into any waters of the U.S., which includes wetlands.
7. Include the following BMPs to handle stormwater and total stormwater volume discharges as they apply to the site:

a. Divert stormwater from off-site around the site so that it does not flow onto the project site and cause erosion of exposed soils.

b. Slow down or contain stormwater that may collect and concentrate within a site and cause erosion of exposed soils.

c. Place velocity dissipation devices (e.g., check dams, sediment traps, or riprap) along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a watercourse to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.

8. The permittee must stabilize any dredged material (temporarily or permanently) stored on an upland property to prevent erosion and subsequent sedimentation into jurisdictional waters of the United States. The material must be contained with siltation control measures to preclude reentry into any waters of the U.S., including wetlands.

Vegetation Protection and Restoration

9. Any disturbed ground and exposed soil not covered with fill must be stabilized and re-vegetated with endemic species, grasses, or other suitable vegetation appropriately to minimize erosion and sedimentation, so that a durable vegetative cover is established in a timely manner.

10. All work areas, material access routes, and surrounding wetlands involved in the construction project shall be delineated and marked in such a way that equipment operators do not operate outside of the marked areas.

11. Natural drainage patterns shall be maintained, to the extent practicable, without introducing ponding or drying.

General

12. DEC coordinates with several regulatory programs to review the impacts of proposed projects. A Section 401 Certification does not release the applicant from obtaining all necessary federal, state, and local permits, nor does it limit more restrictive requirements set through any such program. It does not eliminate, waive, or vary the applicant's obligation to comply with all state water statutes and rules through the construction, installation, and operation of the project or mitigation, including, but not limited to the APDES permitting program 18 AAC 83 and 18 AAC 72.

13. USACE has stated that projects shall be reviewed under the federal rules in place at the time the application is received. This project and its mitigation were reviewed under the federal and state statutes and laws in place at the time the application was received. If the USACE determines any part or condition of this Certification is not lawful or is waived and unenforceable, the determination shall apply only to the part or condition so determined. The determination shall not apply to nor invalidate any remaining parts or conditions of this Certification. If the USACE makes such a determination, the applicant remains responsible for meeting state water quality statutes and rules, and if a violation occurs, may be subject to state enforcement (18 AAC 70.010).

14. This Certification does not release the applicant from any liability, penalty, or duty imposed by Alaska or federal statutes, regulations, rules, or local ordinances, and it does not convey a property right or an exclusive privilege.

15. If your project is not completed by the time limit specified under the USACE Permit and will continue, or for a modification of the USACE permit, you must submit an application for renewal of this certification at least 60 days before the expiration date or any deadline established by USACE for certification action on the modification, or 60 days before the proposed effective date of the modification, whichever is sooner. (18 AAC 15.120(b), 18 AAC 15.130, 18 AAC 15.180).

Date: March 19, 2025

N Waldo

Nick Waldo, Program Manager
Storm Water and Wetlands