UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
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WATER
DIVISION

SEP 19 2019

Ms. Estrella Campellone, Project Manager
U.S. Army Corps of Engineers
Alaska District, Regulatory Division
P.O. Box 6898
JBER, Alaska 99506-0898

Dear Ms. Campellone:

The U.S. Environmental Protection Agency Region 10 has reviewed the projects proposed in Ward Cove under public notices for POA-2019-00313 and POA-2017-00166. The EPA appreciates the Army Corps of Engineers Alaska District granting our request for an extension until September 19, 2019, to comment on POA-2019-00313, a project proposed by David Spokely with Power Systems & Supplies of Alaska. During our review of this permit, the EPA became aware of another development proposed for permitting in Ward Cove, POA-2017-0166, as proposed by David Spokely with Ward Cove Industries. Although the public comment period for POA-2017-0166 ended June 13, 2019, we received notice from Mr. Michael R. Gala of the Alaska District that any comments the EPA provides on that permit now would still be considered during the authorizing process.

We are submitting comments herein on both of these proposed permits, since they are located in close proximity to a CERCLA Site in Ward Cove that is subject to continued EPA monitoring and oversight. Our intent in providing these comments is to help ensure projects proposed in Ward Cove can be reviewed efficiently in a manner that complies with all applicable law, regulation, and policy, including the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, aka CERCLA) and the Clean Water Act's Section 404(b)(l) Guidelines. The Guidelines are the substantive environmental criteria for the evaluation of proposed discharges of dredged or fill material, which cannot be permitted unless compliance with the Guidelines has been demonstrated.

POA-2019-00313 proposes to construct a cruise ship dock to accommodate post-Panamax mega cruise ships, including the installation of piles (54 permanent and 48 temporary, ranging in size from 30 inches to 48 inches in diameter) to support a new 500-foot by 70-foot floating pontoon dock, mooring structures, and a shore-access transfer span and trestle. The project proposed under POA-2017-00166 would excavate, discharge 6,095-cubic yards of gravel and discharge 6,320-cubic yards of concrete rubble to construct one 100-foot x 350-foot barge haul out and landing ramp, one 5-foot x 220-foot float alongside the barge landing/ramp, and one 17.5-foot x 350-foot concrete float attached to a previously authorized float. This project would include the installation of (22) 16-inch galvanized steel piles. The EPA requested and recently received a map that identifies the proposed locations of these projects in Ward Cove. Of particular interest to the EPA is the overlap of each project design with the CERCLA Site and the effects of each project, individually and cumulatively, on the CERCLA Site.

In order to provide context for our comments, it is first necessary to briefly describe the history of Ward Cove as it relates to the CERCLA cleanup there, and to explain the use restrictions that were put into place in order to protect that cleanup.

Ward Cove is a small 250-acre bay on the north shore of the Tongass Narrows that was formerly home to the Ketchikan Pulp Company. In 2000, the EPA issued a Record of Decision (ROD) addressing the Marine Operable Unit (OU) at the Ketchikan Pulp Company (KPC) CERCLA Site (the Site) pursuant to CERCLA, 42 U.S.C. 9601 *et seq*. The 2000 ROD set forth a remedy that addressed 80 acres of contamination in Ward Cove. The remedy was intended to "reduce toxicity of surface sediments" and to "enhance recolonization of surface sediments to support a healthy marine benthic infauna community with multiple taxonomic groups" (p. 49, ROD).[1] Of the 80-acre remedy, the ROD called for monitored natural attenuation (MNA) on approximately 53 acres, and for dredging and a thin-layer sand cap for the remaining 27 acres. Under the EPA oversight, KPC performed the remedial action construction in Ward Cove between 2000 and 2001. In May 2009, the EPA concluded that the multiple lines of evidence used to evaluate sediment quality in the Marine OU indicated that the Remedial Action Objectives had been achieved, and that the sediments supported healthy benthic communities.

However, because waste was left in place, the ROD also called for institutional controls that would restrict the future uses in Ward Cove in order to ensure that the remedy would remain intact and protective of the environment. Specifically, the institutional controls require that any post-remediation activities within the Ward Cove Area of Concern (AOC) that materially damage the remedy be redressed, at the direction of the EPA. The use restrictions set forth in the ROD are still in effect in Ward Cove today.

Unrestricted use of Ward Cove would have been feasible only if all contaminated sediments had been dredged, removed, and properly disposed. Given the characteristics of Ward Cove, the amount and type of contamination, and the cost of such disposal, this was not a preferred alternative at the time. Therefore, the cleanup was developed assuming that future use would include normal vessel traffic and vessel anchoring. The EPA stated in the ROD that certain pile-driving activities would be consistent with the remedy, but that dredging would materially damage the cap.

The remedies selected in the ROD were implemented through a 2000 Consent Decree negotiated between EPA and certain responsible parties.[2] To implement the ROD's institutional control provisions, Section IX (Access & Institutional Controls) of the Consent Decree for the Marine OU specifically prohibited persons from "using the Site in any manner that would interfere with or adversely affect the integrity or protectiveness of the remedial measures to be implemented pursuant to this Consent Decree." The Consent Decree required a Monitoring and Reporting Work Plan.[3] That Plan made clear that the Consent Decree's requirement to refrain from damaging the sediment cap and to replace the cap if necessary was **binding upon the current and future owners** of patented tidelands in Ward Cove. It also stated that "the property owner of the tidelands would be liable for the EPA's costs associated with reviewing and overseeing the action or proposed action that is deemed by the EPA to violate the institutional control."

In 2004, an Environmental Easement and Declaration of Covenants between KPC and the Ketchikan Gateway Borough (2004 Covenant) was recorded, in which the owner agreed to comply with all Ward

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[1] U.S. EPA. 2000. Ketchikan Pulp Company, Marine Operable Unit, Ketchikan, Alaska. Record of Decision. ROD/R10-00/035. U.S. Environmental Protection Agency Region 10, Seattle, WA.

[2] Consent Decree, United States v. Gateway Forest Products, Inc., Ketchikan Pulp Co., & Louisiana-Pacific Corp., No. A00-225 CV (JKS), 2000. (D. Alaska November 30, 2000).

[3] Exponent. 2001. Long-term monitoring and reporting plan for sediment remediation in Ward Cove. Prepared for Ketchikan Pulp Company, Ketchikan, AK. Exponent, Bellevue, WA. & Exponent. 2002. Addendum to the long-term monitoring and reporting plan for sediment remediation in Ward Cove. Dated January 3, 2000. Prepared for Ketchikan Pulp Company, Ketchikan, AK. Exponent, Bellevue, WA.

Cove institutional controls set forth in the Consent Decree, including the restriction on damaging the cap. The 2004 Covenant also states, consistent with the Consent Decree, that the restricted uses shall run with the land and be binding upon all future owners. The three current property owners at the site are the Ketchikan Pulp Company/Louisiana-Pacific Corporation (KPC/LP), Power Systems and Supplies of Alaska LLC (PSSA), and the Alaska Department of Transportation and Public Facilities (ADOT&PF)/Alaska Marine Highway System. KPC owns the landfill; PSSA owns the upland pulp mill site and a large portion of the marine property; and ADOT&PF owns a portion of the upland and marine properties. PSSA leases its property to Ward Cove Industries LLC.

Simply put, the remedy selected for the Marine OU anticipated that Ward Cove would be redeveloped in the future, but the institutional controls put into place to protect that remedy affect **how** the site may be redeveloped. Any activity that materially damages the thin-layer sediment cap at Ward Cove would be inconsistent with the ROD and would violate the 2000 Consent Decree and the institutional control requirements contained therein. Additionally, any activity that damages the remedy could also result in a release of hazardous substances, subjecting the entity conducting the activity to liability under Section 107 of CERCLA. While it is not the EPA's role to approve or disapprove of specific development projects at the KPC Site, it is the EPA's role to ensure that the CERCLA remedy in place at Ward Cove remains protective of the environment. To that end, we request that the Corps consider these legal requirements and factual background when reviewing the proposed project application.

With that background in mind, and based on our review of currently available information, the EPA is concerned that the proposed development activities may adversely affect the integrity of the CERCLA remedy at Ward Cove.

The EPA requests that the Corps recognize the continued prohibitions on using this area in any manner that would interfere with or adversely affect the integrity or protectiveness of the remedy. It is important to note that any party who disturbs or damages the remedy at Ward Cove will subject itself to liability under CERCLA, including responsibility for the costs and damages associated with fixing the remedy. Therefore, any proposed development and/or operations in Ward Cove must ensure the long-term integrity of that remedy and may require the implementation of additional controls to ensure cap integrity, as determined by the EPA.

We understand that the Alaska Department of Environmental Conservation will be providing comments on these permit applications and has also raised concerns about potential impacts to water quality and the CERCLA remedy. EPA supports the State's requests and recommends that they be included in the permit. Furthermore, activities causing substrate disturbance may affect water quality in Ward Cove. Total Maximum Daily Loads in Ward Cove have been approved by EPA for biological oxygen demand (BOD), residue and dissolved oxygen (DO). The institutional controls for Marine OU should be followed to ensure water quality standards are maintained, and monitoring of water quality impacts to Ward Cove during construction may be needed, specifically for turbidity and DO.

We request that the Corps condition any permits authorizing activities in Ward Cove to protect the CERCLA remedy and to coordinate with the EPA prior to commencing construction to ensure compliance with the institutional controls set forth in the 2000 Consent Decree and the 2004 Environmental Covenant. Specifically, we request that the Corps include the following condition as part of any permit issued: "This permit does not authorize the release of hazardous substances. Nor does it authorize activities that may materially damage the CERCLA remedy within the Ward Cove Area of Concern (AOC)." We also recommend that the permit require monitoring during construction to confirm

that authorized activities are not contributing to the release of hazardous substances and/or material damage to the remedy. The EPA stands ready to assist the Corps in developing these confirmation monitoring requirements.

Furthermore, any repair or replacement of the sediment cap at Ward Cove would be considered a discharge of dredged or fill material into a water of the United States and be subject to permitting requirements under Section 404 of the Clean Water Act. At this time, POA-2017-00166 is requesting authorization under Section 404 of the Clean Water Act, but POA-2019-00313 has only requested authorization under Section 10 of the Rivers and Harbors Act of 1899. The EPA believes the short-term construction and long-term operational activities proposed under POA-2019-00313 have some potential to damage the thin-layer sediment cap at Ward Cove; and thus, would require repair or replacement of cap, which would require authorization under Section 404 of the Clean Water Act.

The public notice for POA-2017-00166 failed to acknowledge or provide information regarding the location of the project relative to the Ketchikan Pulp Company CERCLA Site. Without including some mention of the CERCLA Site in a public scoping document, the Corps may not be able to accurately determine the overall public interest in the proposed project.

The EPA appreciates the opportunity to review and provide comments on POA-2019-00313 and POA-2017-00166. We look forward to working with the applicants and the Alaska District as necessary to address the issues raised in this letter and look forward to establishing standard CERCLA coordination procedures with the Alaska District, as discussed with David Hobbie on September 5, 2019.
Should you have any questions or require further information, please feel free to call me at (206) 553-1855, or have your staff contact Amy Jensen at (206) 553-0285, by email at jensen.amy@epa.gov or Kathryn Cerise at 206-553-2589, by email at cerise.kathryn@epa.gov.

Sincerely,

Angela Chung for

Daniel D. Opalski
Director

Enclosure:

cc: Ms. Kim Baginski, USCOE
Mr. Michael R. Gala, USCOE

Attachment 1: Specific Comments on Proposed Activities of POA-2019-00313 & POA-2017-00166

The EPA's specific comments and recommendations are described in this enclosure.

Comments specific to POA-2019-00313

Both the construction and operation of the cruise ship terminal proposed under POA-2019-00313 have the potential to affect the CERCLA remedy and cause degradation to the habitat establishment that has occurred to date. A pre-construction benthic seafloor survey and sampling/analysis plan is needed to document baseline conditions within the Marine OU where construction activities are proposed to occur.

The project proposed by Power Systems & Supplies of Alaska is adjacent to an existing Alaska Marine Highway System (AMHS) vessel facility in Ward Cove. The anticipated in-water construction sequence for the cruise ship dock would begin with installation of an approximately 450-foot-long trestle. Once the trestle is in place, dolphins will be constructed. The dock structure's in-water components – the trestle and mooring dolphins – would be anchored by 54 permanent piles; an additional 48 temporary piles would be placed to guide permanent pile anchoring. For the in-water construction sequence outlined below, pile installation and removal would occur in areas of the Ward Cove AOC. Piles for trestle construction to support the shore-access transfer span, as well as piles anchoring the mooring dolphins, would overlap portions of the CERCLA sand cap and MNA areas.

The proposed construction sequence involves placing and then removing 48 temporary piles. Depending on the locations and methods employed, the proposed temporary pile placement and removal sequence could result in the exposure of subsurface wood waste and contaminated overburden sediments, both into the water column and/or creating a newly exposed sediment surface. The redistribution of wood waste and contaminants to the sediment surface has the potential to disturb adjacent benthic macroinvertebrate communities, and disrupt the benthic restoration achieved in Ward Cove to date.

Permanent piling locations are planned to be located in both the sediment cap and MNA areas of the Marine OU in the Ward Cove AOC. Piling presence and method of installation (including 40 drilled shaft rock anchors) impact both engineering controls and restoration of benthic communities in Ward Cove that have been achieved through CERCLA cleanup actions. Furthermore, the construction of these pilings has the potential to discharge dredged material into Ward Cove, which is a water of the United States. Clarification is needed on how dredged material will be handled, specifically from the placement of pilings into the rock material beneath the hazardous wood waste, in order to demonstrate that the project would not be subject to Section 404 of the Clean Water Act.

The proposed cruise ship dock would accommodate a class of vessels that would be new to Ward Cove and larger than existing ship traffic. This class of vessels is known as "Very Large Cruise Ships" or VLCS, post-Panamax, mega cruise ships, such as the Norwegian Bliss operated by Norwegian Cruise Lines. Cruise ship operations will require vessel maneuvering (docking, etc.) in waters over the Ward Cove AOC including over the sediment cap. Several key considerations related to vessel size, the sediment cap remedy, remedial design assumptions and previous studies on sediment erosion and scouring are outlined below.

The anticipated vessel size, maneuvering characteristics, docking practices, and propulsion system dynamics for post-Panamax cruise ships differ substantially from vessels anticipated to be navigating in Ward Cove when the CERCLA remedy was selected. Earlier assumptions would not therefore apply to larger cruise ships.

Several studies have evaluated the potential for sediment cap impacts in Ward Cove due to scouring caused by propeller wash or "propwash." An initial CH2MHill report evaluated potential sediment disturbance for a class of high-speed ferry vessels, and found the potential for scour impacts to the cap. Several subsequent studies (PND and Windward) responded to the initial scour assessment by pointing to overly conservative assumptions and variations in equipment expected to be used in the waterway. Another study of sediment cap scour, conducted as part of a sediment risk assessment for a heavy shipping channel in Skagway, Alaska also found potential for scour impacts; although navigational depths are not identical to conditions in Ward Cove. The Skagway assessment found potential for impacts at 60-feet of navigational depth. The proposed cruise ship dock in Ward Cove is situated in an area with 65-feet to 120-feet of navigational depth. These studies highlight uncertainties related to how vessel propulsion systems and depth of water translate to the proposed cruise ship dock.

Norwegian Cruise Lines reports that the vessel Norwegian Bliss has five main engines with total output power of 102,900 hp. The vessel has two MAN B&W 14V48/60CR, each with power of 22,520 hp and three MAN B&W 12V48/60CR, each with power of 19,300 hp. The propulsion system is two ABB Azipod XO units with total power of 40 MW. In prior comments [4]on the proposed Ward Cove cruise ship terminal, an Oceans Master-certified pilot, noted that standard procedures employed in the navigation of cruise ships with Azipod propulsion systems during docking and approach maneuvers may specifically create turbulent water at velocities that exacerbate sediment erosion and potential for scour impacts.

The cruise ship vessel dimensions (length: 1,094 feet x beam: 136 feet x draught: 28.5 feet) require a turning area that is likely to impact portions of MNA areas and sediment capped areas of the Ward Cove AOC to the east and northeast of the proposed cruise ship berth locations. Conditions to the east/northeast vary significantly from those in the berthing area; sand capped and MNA areas with organic sediments exist at shallower depths of -30 feet to -50 feet further east and northeast.

The following project construction and operational activities associated with POA-2019-00313 will impact Ward Cove sediments and the CERCLA remedy, both on and off the thin-layer cap:

- Potential impacts to the CERCLA remedy are expected from vessel maneuver characteristics, turning area, docking practices, and propulsion system dynamics for cruise ship vessels relative to existing navigational depths, sediment characteristics and remedial design assumptions
- Permanent piling placement and temporary piling placement and removal will occur in both MNA and thin-layer capped areas, which will impact the remediated surface of these areas.
- Construction activities such as the operation of barges and other support vessels (e.g., tugs) within Ward Cove will affect the cap – clarification of methods for the performance of in-water construction work is needed.
- Transportation and storage of construction equipment and materials by barge may impact the substrate.
- Stabilization and anchoring methods for construction barges will affect the cap – this would include the deployment and retrieval of anchors and spuds.

[4] Johnson, Garrett. letter to Alaska Department of Environmental Conservation forwarding letter sent to U.S. Army Corp of Engineers. (related to permit reference number POA-2019-00313). August 1, 2019.

- Placement of 40 drilled shaft pile anchors to support the 36-inch and 48-inch permanent piles will impact the cap. As described during an interagency phone call, materials (including wood waste overburden and bedrock) removed from the hollow wall piles and the drilled shaft will be placed back into Ward Cove, apparently to settle back on top of remediated substrate. The volume/depth of overburden at these locations is unclear.
- Ward Cove has existing Total Maximum Daily Loads for biological oxygen demand (BOD), residue and dissolved oxygen (DO). Activities causing substrate disturbance may affect water quality. Monitoring of water quality impacts to Ward Cove during construction may be needed, specifically for turbidity and DO.
- The scour report anticipates AMHS vessel typologies, maneuvering characteristics and propeller wash patterns that are different from propulsion systems used in VLCS vessels. Given sediment cap and MNA locations and proposed dock locations, operational impacts are anticipated.
- The potential exists for sediment scour impacts and resuspension of subsurface contaminated organic sediments from AOC areas and capped areas into the water column. The resuspension of wood waste and contaminants has the potential to degrade the restoration of benthic macroinvertebrate communities in Ward Cove achieved to date.

Best management practices can be used to minimize the impacts of operations on the CERCLA remedy, including establishing general navigation routes and docking locations for specific types of vessels in Ward Cove. A plan of best management practices should be established in coordination with EPA, the State of Alaska, and other agencies as appropriate. The plan should describe how operations will occur to avoid impacts to the Marine OU within the range of anticipated wind, current, and traffic conditions. This plan should be submitted to EPA and DEC at least 90 days prior to commencing operations.

Furthermore, benthic seafloor monitoring plan is needed prior to commencing operations to assess conditions in the areas of the Marine OU where vessel activity will occur to ensure the CERCLA remedy is repaired swiftly if damage was to occur. The objectives of this plan should address and be consistent with Long-term monitoring and reporting plan for sediment remediation in Ward Cove[5].

Comments Specific to POA-2017-00166

Ward Cove Industries proposes to install a barge ramp, haul out infrastructure, floating dock and piling anchor systems. The purpose of the proposed barge facility improvements is to allow transportation of goods and services from barges and allow the haul out of barges and other vessels for maintenance and repairs.

Proposed Construction activities include:

- Excavation, rock and rubble placement for 100-foot x 350-foot barge ramp;
- Installation of two floating dock systems – a 5-foot x 220-foot float (6 pilings); and
- An expansion of an existing permitted float and addition of a new 17.5-foot x 350-foot float (16 pilings).

In total, the proposed construction activities under POA-2017-0166 would result in the placement of 22

[5] Exponent. 2001. Long-term monitoring and reporting plan for sediment remediation in Ward Cove. Prepared for Ketchikan Pulp Company, Ketchikan, AK. Exponent, Bellevue, WA. & Exponent. 2002. Addendum to the long-term monitoring and reporting plan for sediment remediation in Ward Cove. Dated January 3, 2000. Prepared for Ketchikan Pulp Company, Ketchikan, AK. Exponent, Bellevue, WA

new 16-inch steel pilings to be anchored in Ward Cove. Construction drawings provide details regarding pilings, assembly of floats, rock/rubble placement and re-construction of retaining walls. The proposed construction sequence for the 22 pilings and floating dock may have the following impacts on the Ward Cove AOC:

- Damaging the existing CERCLA sand cap or MNA areas;
- Disturbing subsurface wood waste or contaminated soil causing the resuspension/movement of wood waste;
- Degrading the restoration of benthic macroinvertebrate communities in Ward Cove achieved to date; and

Potential need for repairs and reconstruction of remedy components at the site. There is a requirement in the CERCLA Consent Decree that any activities that materially damage the CERLCA thin-layer cap must repair such damage at the direction of the EPA.

The application for POA-2017-00166 does not provide sufficient information to assess the location of the proposed work relative to features or parcels at the Ketchikan Pulp Company CERCLA site. Neither the Marine OU's Ward Cove AOC nor Upland OU's near-shore fill area are discussed in the application, nor are they included in the application's attached plans or figures, therefore, it is not possible to ascertain the potential effects from the proposed activity on the CERCLA remedy. We request that a map is provided that shows all of the proposed locations of the proposed projects in relation to the AOC, Marine OU and Upland OU to help demonstrate the overlap of these projects with the CERCLA remedy.

Furthermore, excavation and the placement of fill in the Marine OU is expected to directly affect the CERCLA remedy and the habitat reestablishment that has occurred to date. A pre-construction benthic seafloor survey and sampling/analysis plan is needed to document baseline conditions within the Marine OU where construction activities are proposed to occur.

Modification #1 to POA-2017-00166, requested on behalf of David Spokely DBA Ward Cove Industries on March 18, 2019, proposes to excavate within Ward Cove for the construction of a 100-foot x 350-foot barge ramp, which could directly disturb the integrity of the remedy. Additional information about the location of this excavation is needed to understand the potential impacts of the proposed floats and barge haul out/ship lift in the Marine OU.

The proposed barge ramp and ship lift components of the project are generally located in an area known as the near-shore sub area of the Upland OU. At this shoreline location, the applicant proposes excavation and rock and rubble placement for a 100-foot x 350-foot barge ramp.

If excavated soils are not properly characterized or managed during excavation and construction, construction workers may be at a greater risk of exposure to contaminated materials. Inappropriate management of excavated materials could cause spread of contaminated soils to other upland areas and Ward Cove. To complete an assessment of the effects of the shoreline work, source areas must be identified and evaluated. It will be important to note clearly where the proposed barge ramp will be placed relative to contaminated areas at the site, including the Ward Cove AOC portion of the Marine OU and Near-Shore fill subarea of the Upland OU. A figure is needed for reference. Please explain how the applicant proposes to excavate and then place rock and rubble. Describe how excavated materials will be characterized, handled and managed during construction.

A work plan should be established for the proposed upland excavation activities to demonstrate compliance with the Institutional Controls Management Plan and Management Plan for Arsenic and Rock and Soil. This plan will identify source area (if any) and disposal areas to be used during demolition and excavation activities using applicable or relevant and appropriate requirements, such as current risk-based concentrations or standards and criteria. Soils excavated should be properly characterized and managed to maintain construction worker safety and ensure hazardous materials are handled properly.