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The U.S. Environmental Protection Agency (EPA) plans to **modify** a National Pollutant Discharge Elimination System (NPDES) permit **for** the following facility pursuant to the provisions of the Clean Water Act, 33 U.S.C. §1251 **et seq**:

**U.S. NAVY ARCTIC ICE CAMP
AK0053783**

EPA PROPOSES TO MODIFY A NPDES PERMIT

The EPA proposes to modify the NPDES permit issued to the facility referenced above. The proposed modification includes the following:

- Expand the area of the potential camp location to account for increased ice movement during the six-week operational period;
- Remove the Permit provision at Part I.B.10., which requires the Permittee to remove all debris during the end-of-season demobilization efforts.
- Remove the Permit provision at Part II.A.3.g., which requires the Permittee to incorporate the Spill Prevention, Control and Countermeasures (SPCC) into the Best Management Practices (BMP) Plan.

This Fact Sheet includes:

- Information on public comment, public hearing, and appeal procedures;
- A description of the operations and discharge location; and
- Technical information supporting the proposed expansion of the area of camp operations; the removal of the end-of-season demobilization requirements; and the removal of the SPCC BMP requirements.

PUBLIC COMMENT

The EPA is only accepting comments on the proposed modifications to the Permit. The EPA will consider all substantive comments on the proposed modifications to the NPDES permit before taking final action on the modification. Persons wishing to comment on, or request a public hearing for, the proposed permit action may do so in writing by the expiration date of the public notice period. A request for a public hearing must state the nature of the issues to be raised as well as the requester's name, address, and telephone number. All comments should include name, address, phone number, a concise statement of basis of comment and relevant facts upon which it is based. All written comments should be addressed to:

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After the Public Notice period has ended and the public comments have been considered, the EPA Region 10 Director of the Office of Water and Watersheds will make a final decision regarding the permit modification. If no substantive comments are received, the conditions in the proposed permit modification will become final and the permit modification will become effective upon issuance. If substantive comments are received, EPA will respond to the comments and the permit will become effective 30 days after its issuance date, unless an appeal is submitted to the Environmental Appeals Board within 30 days.

401 CERTIFICATION FOR FACILITIES THAT DISCHARGE TO STATE WATERS

The area of coverage of the Arctic Ice Camp Permit is located within federal waters of the Beaufort Sea. As the permit does not authorize discharges to Alaska State waters, it is not subject to CWA Section 401 certification.

DOCUMENTS ARE AVAILABLE FOR REVIEW

The draft NPDES permit, fact sheet and related documents can be reviewed or obtained by contacting the EPA's Regional Office in Seattle or the Alaska Operations Office between 8:30 a.m. and 4:00 p.m., Monday through Friday (see address below). The draft permit, fact sheet, and other information can also be found by visiting the Region 10 website at "www.epa.gov/R10earth/waterpermits.htm".

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TABLE OF CONTENTS

I.	FACILITY OVERVIEW	4
II.	PROPOSED MAJOR MODIFICATIONS.....	5
A.	CAUSE FOR MODIFICATION.....	5 -
B.	MODIFICATION TO THE AREA OF CAMP OPERATIONS	5 -
C.	MODIFICATION OF THE DEMOBILIZATION REQUIREMENTS (PERMIT PART I.B.10.).....	7 -
D.	MODIFICATION OF THE BMP PLAN REQUIREMENTS (PERMIT PART II.A.3.G.).....	7 -
III.	CLARIFICATION OF GRAYWATER DISCHARGE (OUTFALL 001)	7
IV.	OCEAN DISCHARGE CRITERIA EVALUATION	8
V.	ENDANGERED SPECIES ACT CONSULTATION	9
VI.	REFERENCES	10
VII.	DEFINITIONS	11
APPENDIX A.	U.S. NAVY REQUEST FOR NPDES PERMIT MODIFICATION.....	12

I. FACILITY OVERVIEW

The United States Navy (“U.S. Navy”) is the operator of the temporary Arctic Ice Camp (“the facility”), located approximately 100 – 200 nautical miles north of Deadhorse, Alaska. The facility provides support for a variety of submarine training and testing, and research activities. The U.S. Navy constructs the facility on multiyear ice, which is structurally more stable than first-year ice. The exact location of the facility cannot be predicted in advance as it will depend upon ice conditions at the start of the exercise. The location will also change over the course of the exercise as the ice floe on which the camp is built drifts due to wind and ocean currents.

The Navy expects to operate the facility during a six (6) week period, from approximately late February to early April timeframe, every other year. Once constructed, the facility consists of approximately 15 to 20 buildings (housing, dining facility, and command hut), a runway, and a heliport. The completed facility, including the runway, is approximately one mile in diameter. The camp population hosts an average of 48 people with a maximum population of 65 people over two separate two-day periods. During facility construction and demobilization, the camp population will consist of about 15 people.

All materials, fuel, and food for the facility are transported from Deadhorse, Alaska by aircraft that range in size from small, twin-engine aircraft, to large LC-130 military transport aircraft. Upon completion of activities at the facility, the facility will be demobilized and removed from the ice floe, including all construction materials, solid waste, hazardous waste, and sanitary waste.

The EPA issued an NPDES permit for the Arctic Ice Camp on December 14, 2015. The permit authorized the U.S. Navy to discharge graywater (Outfall 001) and reverse osmosis reject water (Outfall 002) from the ice camp to the Beaufort Sea. This was the first NPDES permit for the facility.

On April 12, 2017, the U.S. Navy submitted a Request for Modification of the Arctic Ice Camp Permit (AK-005378-3). In this letter (see Appendix A), the U.S. Navy requested modification of the following permit elements:

- (1) Inclusion of a handwashing (hygiene) station;
- (2) Expansion of the area of potential camp operations;
- (3) Removal of the requirements at Permit Part I.B.10 regarding camp demobilization; and
- (4) Removal of the Best Management Practice requirement at Permit Part II.A.3.g. as it is covered under CWA Section 311 and 40 CFR Part 112.

The proposed permit modification addresses the U.S. Navy’s requests for permit elements (2) through (4). As discussed in Part III of this Fact Sheet, the EPA does not consider element (1) to be a modification to the existing permit.

II. PROPOSED MAJOR MODIFICATIONS

A. CAUSE FOR MODIFICATION

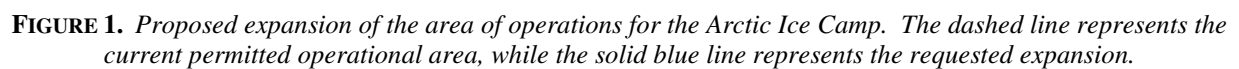
The regulations at 40 CFR §122.62 allow for NPDES permits to be modified for cause. The causes for modification of the current Arctic Ice Camp NPDES permit include:

- Permits may be modified during their terms due to the submission of new information that was not available at the time of the current permit's issuance (40 CFR §122.62(a)(2)).
- To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions (40 CFR 122.62(a)(15)).

B. MODIFICATION TO THE AREA OF CAMP OPERATIONS

The EPA is proposing to expand the area of potential camp operations. The area is the specified geographic location in which the U.S. Navy is authorized to discharge graywater (Outfall 001) and reverse osmosis reject water (Outfall 002). The Arctic Ice Camp will still be established on multi-year ice approximately 100 – 200 nautical miles north of Deadhorse, Alaska.

The U.S. Navy operated the Arctic Ice Camp in February 2016 at a location approximately 197 nautical miles north of Deadhorse, Alaska. During this season, ice floe drift was observed to be greater than anticipated and the Arctic Ice Camp moved close to the boundary authorized by the 2015 NPDES permit. To ensure the camp operates within the permitted area, the U.S. Navy requested to expand the area of potential operation where the discharge could occur to the east (M. Geremia, personal communication, July 20, 2017). Figure 1 depicts the current permitted area of operation and the requested expansion.



C. MODIFICATION OF THE DEMOBILIZATION REQUIREMENTS (PERMIT PART I.B.10.)

Part I.B.10. of the current permit requires the Permittee to remove any facility debris from the ice during end-of-season demobilization of the Arctic Ice Camp. This requirement is more appropriately regulated under the Marine Protection, Research and Sanctuaries Act (MPRSA; also known as the Ocean Dumping Act). Removing this provision from the Permit would eliminate a regulatory redundancy for the Permittee. The MPRSA prohibits the dumping of material into the ocean that would unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities (33 U.S.C. 1401 et seq).

The EPA is proposing to remove this requirement from the Permit. The U.S. Navy must comply with MPRSA regulations, which would accomplish the objective of this permit requirement (i.e. removal of camp debris).

D. MODIFICATION OF THE BMP PLAN REQUIREMENTS (PERMIT PART II.A.3.G.)

Part II.A.3.g. of the current permit requires the Permittee to “*reflect requirements for Spill Prevention, Control, and Countermeasure Plans under Section 311 of the Act and 40 CFR Part 112 and may incorporate any part of such plans into the BMP Plan by reference.*” Under Executive Order 12777, the regulations at Section 311 of the Clean Water Act and 40 CFR Part 112 are implemented by the Department of Interior for offshore facilities. In a Memorandum of Understanding between the Department of Interior, the EPA, and the Department of Transportation, the Secretary of Interior redelegated to the EPA the authority to regulate offshore facilities landward of the coastline (33 CFR Part 112, Appendix B), while it retained jurisdiction over facilities seaward of the coastline.

Since the Arctic Ice Camp is located seaward of the coastline, the EPA is proposing to remove this requirement from the NPDES permit. All other BMP requirements remain unchanged.

The U.S. Navy must comply with all appropriate SPCC requirements under the authority of the Department of Interior.

III. CLARIFICATION OF GRAYWATER DISCHARGE (OUTFALL 001)

The U.S. Navy requested the ability to provide a handwashing station at the Arctic Ice Camp. The handwashing station would be available in the camp’s dining facility and would be collocated with the sink used for dishwashing and, therefore, would share the same drain pipe for discharge to the Beaufort Sea (Outfall 001).

The current NPDES permit does not place a limit on the flow rate or volume associated with Outfall 001 and defines graywater as “wastewater from a kitchen, sink, or other domestic source that does not contain excrement, urine, or combined storm water.” Consequently, adding a handwashing station at the ice camp does not trigger a regulatory requirement to modify the permit.

The EPA is not proposing any changes to the Permit as a result of this request from the U.S. Navy.

IV. OCEAN DISCHARGE CRITERIA EVALUATION

The EPA's Ocean Discharge Criteria (40 CFR Part 125, Subpart M) set forth factors the Regional Administrator must consider when determining whether the discharges will cause unreasonable degradation of the marine environment. Unreasonable degradation is defined as follows (40 CFR 125.121(e)):

- Significant adverse changes in ecosystem diversity, productivity, and stability of the biological community within the area of discharge and surrounding biological communities;
- Threat to human health through direct exposure to pollutants or through consumption of exposed aquatic organisms; or
- Loss of aesthetic, recreational, scientific, or economic values that are unreasonable in relation to the benefit derived from the discharge.

The EPA regulations set out ten criteria to consider when conducting an Ocean Discharge Criteria Evaluation (ODCE) (40 CFR 125.122). The original ODCE developed by the EPA during the 2015 NPDES permit issuance process concluded that there would be no unreasonable degradation of the marine environment as a result of the authorized wastewater discharges (US EPA, 2015). The EPA has reviewed the original analysis and determined that the proposed NPDES permit modification does not change the conclusion based on the following factors:

- (1) There is no change in the quantities, composition, or potential for bioaccumulation or persistence of the pollutants to be discharged.
- (2) The proposed permit modification does not change the composition of the discharges, therefore there is no risk of increased potential transport of such pollutants by biological, physical, or chemical processes.
- (3) The composition and vulnerability of the biological communities, which may be exposed to such pollutants has not changed (i.e. all listed species and critical habitats) were previously considered.
- (4) The proposed expanded area of camp operation does not change the importance of the receiving water area to the surrounding biological community.
- (5) There are no new special aquatic sites not previously considered.
- (6) Since the composition, duration, and frequency of discharge has not changed, the potential impacts on human health through direct and indirect pathways does not change.
- (7) All impacts to existing or potential recreational and commercial fishing, including finfishing and shellfishing, were previously considered.
- (8) The CZMA consistency provisions do not apply to Alaska.
- (9) The proposed permit modification does not change the other factors relating to the effects of the discharge that were previously considered.
- (10) The proposed permit modification does not change the applicable marine water quality criteria developed pursuant to CWA section 304(a)(1).

V. ENDANGERED SPECIES ACT CONSULTATION

The Endangered Species Act (ESA) Section 7 regulations at 50 CFR §402.16 outline four general conditions for reinitiating formal consultation: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) the action is modified in a manner causing effects to listed species or critical habitat not previously considered; (4) a new species is listed or critical habitat designated that may be affected by the action.

The EPA has determined that the proposed permit modification does not require reinitiating consultation under the Endangered Species Act (ESA). EPA reached this conclusion based on the following factors: (1) The proposed permit modification does not change the composition, duration, and frequency of the two authorized wastewater discharges; and (2) While the operational area of the Arctic Ice Camp would expand, no new species or critical habitat areas would be affected, i.e. all listed species and critical habitats have been previously considered. As such, the Biological Evaluation and consultation process conducted during the original permit issuance process is valid and reinitiation of ESA consultation not necessary for the Permit modification.

Furthermore, since the addition of a handwashing station does not change the composition, appreciable magnitude, duration, and frequency of the authorized graywater discharge (Outfall 001), the EPA also concludes that this clarification does not trigger reinitiation of ESA consultation based on the regulations at 50 CFR §402.16.

VI. REFERENCES

US EPA. 2015. Final National Pollutant Discharge Elimination System (NPDES) Permit for the US Navy Arctic Ice Camp (AK-005378-3). December 2015.

US EPA. 2015. Final Ocean Discharge Criteria Evaluation (ODCE) for the US Navy Arctic Ice Camp NPDES Permit. December 2015.

US Navy. 2017. Request for NPDES Permit Modification of US Navy Arctic Ice Camp NPDES Permit. April 2017.

VII. DEFINITIONS

- 1.** § means section or subsection.
- 2.** Act means the Clean Water Act.
- 3.** Best Management Practices (“BMPs”) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
- 4.** CFR means the Code of Federal Regulations.
- 5.** CWA, or the Act, means the Clean Water Act.
- 6.** Director means the Director of the Office of Water and Watersheds, or Director of the Office of Compliance and Enforcement, EPA, or authorized representatives.
- 7.** Discharge, when used without qualification, means the discharge of a pollutant.
- 8.** Discharge of a pollutant means any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source".
- 9.** EPA means the United States Environmental Protection Agency.
- 10.** NPDES means National Pollutant Discharge Elimination System.
- 11.** Permittee means a company, organization, association, entity, or person who is issued a wastewater permit and is responsible for ensuring compliance, monitoring, and reporting as required by the permit.

APPENDIX A. U.S. NAVY REQUEST FOR NPDES PERMIT MODIFICATION

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DEPARTMENT OF THE NAVY
COMMANDER UNDERSEA WARFIGHTING DEVELOPMENT CENTER
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IN REPLY REFER TO:
5090
Ser 00/023
April 10, 2017

Mr. Michael Lidgard
U.S. Environmental Protection Agency, Region 10
NPDES Permits Unit, OWW-191
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3188

Dear Mr. Lidgard:

This submission is a request to modify the National Pollutant Discharge Elimination System Permit No. AK0053783 that was issued to the United States Navy on 14 December 2015. This original permit covers discharges from the operation of a Navy Arctic ice camp that is constructed approximately every two years on the ice floes of the Beaufort Sea. Included with this submission is a description of the planned changes to the ice camp's wastewater discharge to include the addition of a hygiene station and an updated map delineating the activity area of the ice camp. As part of this permit modification, we respectfully request that the requirements in Section I(B)(10) and Section II(A)(3)(g) of our current permit be removed.

The Section I(B)(10) requirement to remove any facility debris on the ice during end-of-season demobilization of the ice camp appears to fall outside the ambit of the Clean Water Act or the NPDES program, and therefore the scope of this permit, which addresses the discharge of graywater from a discrete point source. It is our opinion that facility debris is more appropriately addressed under the Ocean Dumping Act. With that said, the Navy intends to remove any facility debris on the ice during demobilization, barring any emergency or unforeseen situation.

The requirements of 40 CFR Part 112 and Section 311 of the Clean Water Act referenced in Section II(A)(3)(g) do not apply to offshore facilities such as the ice camp. In Executive Order 12777, *Implementation of Section 311 of the Federal Water Pollution Control Act of October 18, 1972, as Amended, and the Oil Pollution Act of 1990*, the President delegated his authority establishing regulations for spill response plans for offshore facilities to the Secretary of Interior. Per a Memorandum of Understanding between the Department of the Interior, EPA and the Department of Transportation, the Secretary of Interior redelegated to the EPA the authority to regulate offshore facilities landward of the coastline (33 CFR 112 Appendix B). The Department of the Interior retained jurisdiction over facilities seaward. The ice camp will be located seaward of the coastline and thus not subject to EPA jurisdiction with regard to spill response planning. Nonetheless, as with the previous exercise, we will prepare a spill response plan to ensure that all ice camp personnel and participants understand their roles and responsibilities in preventing and responding to a spill. We will also continue to employ operational controls to help prevent releases from occurring, to respond immediately to any spill, and to make all required notifications in the event of a spill.

5090
Ser 00/023
April 10, 2017

If you have any questions or concerns, please contact Ms. Laura Busch at (757) 836-8471 or laura.busch@navy.mil.

Sincerely,

A handwritten signature in dark ink, appearing to read 'H. A. Estrada', with a stylized flourish at the end.

H. A. ESTRADA
Director

Enclosures: 1. Navy Arctic Ice Camp NPDES Permit Update
2. ICEX Study Area Map

Fresh Water Production and Reverse Osmosis System Discharge (Outfall 002)

The description of fresh water production and the reverse osmosis system discharge remains unchanged from EPA Form 3510-2E in the original permit application.

Food Preparation and Dishwashing Discharge (Outfall 001)

Dishwashing will involve the use of a biodegradable, chlorine and phosphate-free detergent that meets the EPA's Safer Choice standards. Prior to use, dishwashing water will be heated using an on-demand propane water heater. Water made available to camp personnel for consumption will be imbibed as is or used with powdered drink mixes, coffee, oatmeal, and other food products.

Wastewater generated during food preparation and dishwashing will be discharged to the Beaufort Sea via a single drain in the camp's dining facility. The drain consists of a corrugated pipe wrapped in electric heat tape to prevent the pipe from freezing. The drain will utilize a removable metal screen to capture solid debris in the wastewater prior to discharge. The metal screen will have a mesh size of no greater than 1/16 inch. Solids captured in the screen will be disposed of via the camp's solid waste containers and brought back to Deadhorse, AK for disposition.

A Tray Ration Heater (TRH) will be used for the majority of the food preparation. The TRH utilizes approximately 20 gallons of heated potable water per meal (i.e. breakfast, lunch, or dinner) to heat trays of individual rations. The water used for warming the rations is held in a 30 gallon stainless steel tank inside the TRH. The rations sit in a hot water bath for approximately forty minutes prior to being served. The hot water and food never come in direct contact, so the water can be reused multiple times without replacement. The use of the TRH will largely eliminate the need to wash utensils and food preparation and serving dishes, since the ration packaging and utensils will be disposed of in the camp's solid waste containers. The water in the TRH will be discharged and replaced on an as needed basis.

For any meals not prepared using the TRH, the best management practice of scraping dishes clean of any solids prior to turning them in for washing will be employed.

Sanitary and Personal Hygiene Waste

Sanitary/human waste (i.e. blackwater) generated at the camp will be containerized and brought back to Deadhorse, AK for disposition. Most personal hygiene is achieved via the use of baby wipes, waterless shampoo, waterless soap, hand sanitizers, and electric razors. Camp personnel are allowed to melt ice to use for personal hygiene, such as brushing teeth, using the heaters in their berthing areas. Waste generated from these activities will be placed in a solid waste container available in each berthing area and brought back to Deadhorse, AK for disposition.

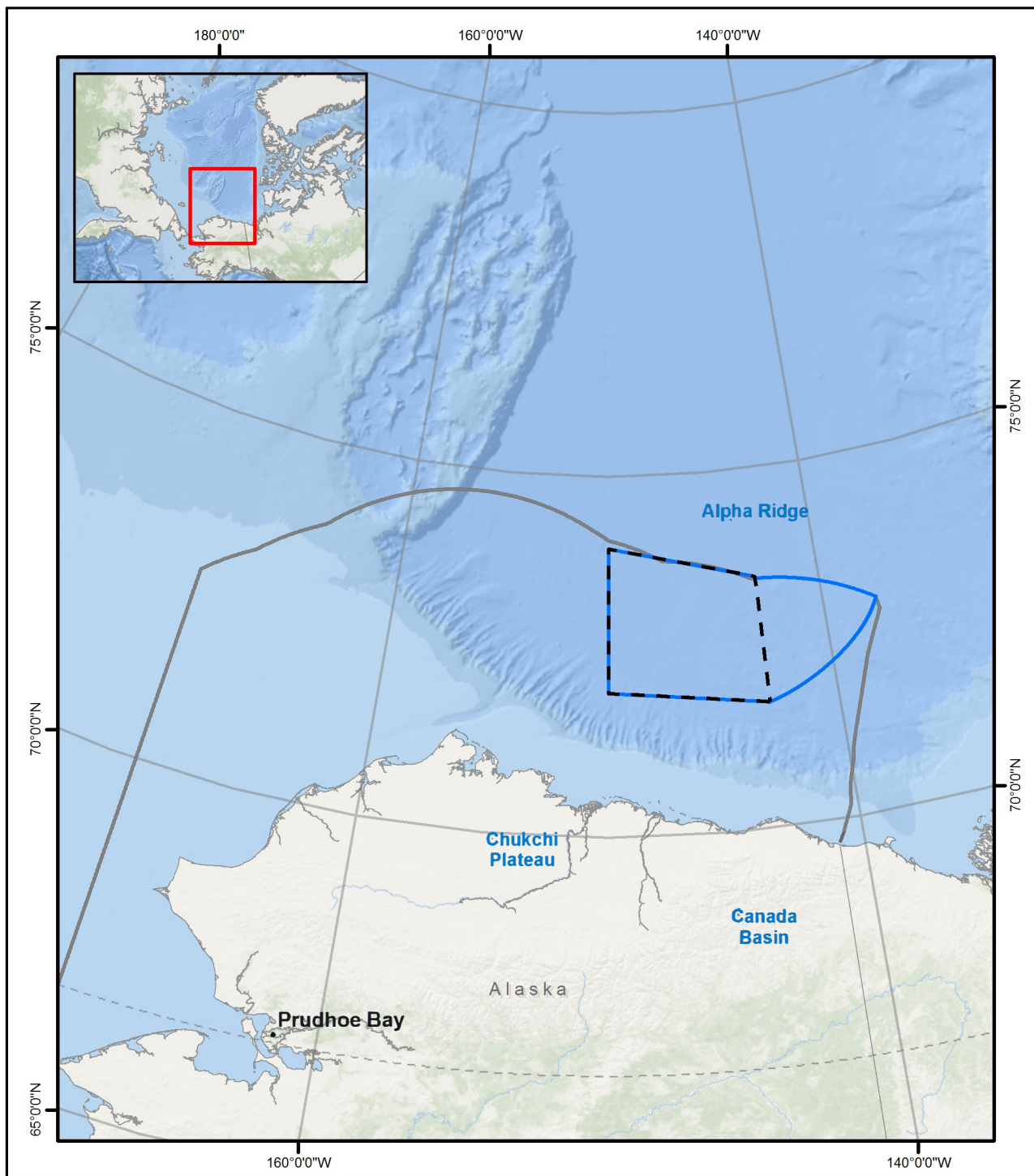
Fresh water will be available for hand washing at a hygiene station located in the camp's dining facility. The hygiene station will utilize a biodegradable, chlorine and phosphate-free detergent that meets EPA's Safer Choice standards. It will be collocated with the sink used for dishwashing, and it will share the same drain pipe for discharge to the Beaufort Sea (Outfall 001).

Outfall 001 Discharge Volumes

There will be an average discharge rate of 27.5 gallons/day from the hygiene station over 15 days of full-scale camp operations with a maximum discharge rate of 35 gallons/day. The estimated maximum total discharge from the ice camp's hygiene station is 525 gallons.

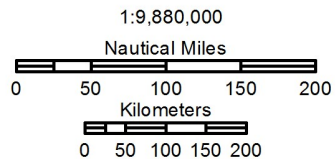
There will be a maximum discharge of 20 gallons/meal from the TRH. The maximum total discharge from the TRH over the course of camp operations will be 900 gallons. Additional water will be necessary for food preparation and dishwashing, since TRH meals will be supplemented with a limited amount of freshly prepared foods. It is estimated that the maximum total discharge for this process will be 100 gallons/day for a total of 1,500 gallons over the 15 days of full-scale camp operations. The estimated total discharge from the ice camp's dining facility (Outfall 001) is 2,925 gallons.

ICEX Study Area Map



ICEX Study Area

- ICEX16 Ice Camp
- ICEX18 Ice Camp
- U.S. Exclusive Economic Zone



Date: 12 September 2017 Coordinate System: WGS 1984 North Pole LAEA Alaska Data Sources: ESRI, NOAA, US Navy