United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
1011 East Tudor Road
Anchorage, AK 99503-6199

IN REPLY REFER TO:

AFES/MMM

DEC 16 2015

Mr. David P. Chaput
Program Director
Alaska Frontier Constructors, Inc.
P.O. Box 224889
Anchorage, Alaska 99522

Dear Mr. Chaput:

The U.S. Fish and Wildlife Service (Service) reviewed your request; which included a cover letter (July 1, 2015), a Polar Bear and Wildlife Interaction Plan (May 2015), and a gravel extraction plan near Deadhorse (March 2015); for Letters of Authorization (LOAs) for the incidental and intentional (deterrent activities) take of polar bears during activities associated with the Alaska Frontier Constructors, Inc. (AFC) 2016-2017 Deadhorse Gravel Development program at the Sagavanirktok River Floodplain.

In accordance with Service regulations 50 CFR 18 subpart J published on August 3, 2011 (76 FR 47010) please find enclosed your LOA number 15-21 authorizing the incidental take of small numbers of polar bears during the AFC 2016-2017 Gravel Development program at the Sagavanirktok River Floodplain. Also, intentional take LOA 15-INT-18, as authorized under sections 101 (a)(4)(A), 109(h), and 112(c) of the Marine Mammal Protection Act (MMPA), is enclosed.

A detailed description of the proposed activities is provided in the AFC *Proposal Submitted to Federal, Alaska State Agencies for the Temporary Gravel Extraction from a Sagavanirktok River Floodplain and to Create Overwintering Fish Habitat near Deadhorse, AK (* (March 9, 2015). Also included in the request is the *Nanuq Inc., AFC Northern Construction and Maintenance, LLC., Polar Bear and Wildlife Interaction Plan* (May 2015).

Per the *Programmatic Biological Opinion for the Beaufort Sea Incidental Take Regulations for Polar Bear, Pacific Walrus, and Polar Bear Critical Habitat* (July 2011), issuance of this LOA also completes consultation for polar bears pursuant to section 7 of the Endangered Species Act ESA) of 1973, as amended. This LOA also serves as an "Incidental Take Statement" (ITS), which is required by the ESA in order for incidental take to be authorized.

Should you have any further questions regarding your LOA, or polar bear management in general, please contact Mr. Michael Hendrick or the Marine Mammals Management Office, at (907) 786-3479 or (907) 786-3800, or email at michael_hendrick@fws.gov.

Sincerely,

Chief, Marine Mammals Management

Enclosure

Email cc: Mr. Richard Shideler, Alaska Department of Fish and Game
U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office
U.S. Fish and Wildlife Service, Office of Law Enforcement
North Slope Borough, Department of Law

United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
1011 East Tudor Road
Anchorage, Alaska 99503-6199

IN REPLY REFER TO:

AFES/MMM

LETTER OF AUTHORIZATION
Incidental Take
(15-21)

ISSUED: December 9, 2015
EXPIRES: August 2, 2016

In accordance with Incidental Take Regulations at 50 CFR 18 subpart J published on August 3, 2011 (76 FR 47010), Alaska Frontier Constructors, Inc. (AFC) is authorized to take small numbers of polar bears (*Ursus maritimus*) incidental to activities associated with the 2016-2017 AFC Deadhorse Gravel Development program at the Sagavanirktok (Sag) River Floodplain.

The proposed activities will occur in the summer months of June through October or until weather conditions may the work non-feasible. It will be a two season program with the start in 2016. The purpose is to provide the Deadhorse, Alaska, community with gravel for pad and road maintenance. The proposed Sag River gravel source is considered the best option. The close proximity to the Deadhorse community makes it an ideal site to provide the material for the demand for repair of degrading pads and roads.

In the Deadhorse community there are over 80 tracts of land slated by the State of Alaska for development. These tracts are required to be "improved" by their leaseholder. Many tracts that have gravel placed on them are not entirely filled with gravel to their boundaries and in some cases; sufficient pad thickness is not present. Deadhorse businesses in general, are burdened with high lease costs, high tax costs, and high operating costs which has historically caused businesses to construct their gravel pads with small footprints, often times smaller than what they truly may need for their operations. Other gravel cost reducing methods in the past have been to reduce cost by placing a thinner layer of gravel than typically required. As a general rule, gravel pads require five to six feet of gravel fill to sufficiently insulate the subgrade (tundra) permafrost from melting in the summer. Thin gravel pads less than five feet in thickness succumb to thawing ground conditions. This process is a localized thawing of ice-rich soil, which results in formation of a depression at the ground surface and eventual erosion. As the ground surface thaws, pad gravel eventually sinks into the tundra becoming an unusable pad surface for the leaseholder. For this reason, companies in the Deadhorse area are seeking to repair their pads requiring more gravel. A close gravel source is necessary to accommodate the need. In addition to gravel pad attrition from thawing processes, companies are also requiring more pad space to accomplish their work. In the past few years construction growth from the producers has had a ripple effect on the contractors; as the producers expand, the service companies must also expand

to meet the demands of the industry. As such, companies have submitted requests for gravel to AFC in order to expand their pads out to the boundaries of the lease, which for the reasons mentioned above, were held back previously due to conservative fiscal considerations. AFC currently has a backlog requiring approximately 660,000 cubic yards in the Deadhorse area alone, and is forecasting an additional 500,000 cubic yards in the next few years. In addition to these conditions, there are also several leases in Deadhorse that have never been filled with gravel mainly due to high costs to develop.

A detailed description of the proposed activities is provided in the AFC *Proposal Submitted to Federal, Alaska State Agencies for the Temporary Gravel Extraction from a Sagavanirktok River Floodplain and to Create Overwintering Fish Habitat near Deadhorse, Alaska* (March 9, 2015).

As a condition of this LOA, AFC shall conduct a polar bear den detection survey prior to the start of project activities near polar bear denning habitat during the maternal denning period (November to mid-April). The Service seeks to limit disturbance of polar bear maternal dens and denning habitat. All personnel must use caution when operating near polar bear denning habitat during the maternal denning period. Service Marine Mammals Management Office (MMM) biologists are available at the phone numbers listed below if questions or concerns arise.

This LOA and the required conditions below apply to all AFC employees, contractors, and personnel performing AFC-approved work for the project described above. This LOA stipulates the following conditions:

1) This LOA authorizes incidental take only.
2) AFC must comply with all requirements listed at 50 CFR subpart J published on August 3, 2011(76 FR 47010).
3) AFC shall report all polar bear sightings, signs of polar bears (e.g., tracks or excavations), and any potential dens to the Service MMM using the polar bear observations report, within 24 hours via email to fw7_mmm_reports@fws.gov.
4) Project field camps and personnel shall limit encounters with polar bears by being observant of approaching bears (e.g., the use of polar bear guards) and by allowing bears to pass unhindered when possible.
5) Project operations managers, or designees, must understand, be fully aware of, and be capable of implementing the conditions of the LOA.
6) Holders of an LOA must conduct their activities in a manner that, to the greatest extent practicable, minimizes impacts on the availability of polar bears for subsistence uses.

7) If changes develop in the project during the period approved under this LOA, such as activities, location, or methods, the Service MMM must be notified prior to the implementation of such changes.
8) AFC must conduct the following mitigation, monitoring, and reporting:

    a. Mitigation: Holders of an LOA must use methods and conduct activities in a manner that minimizes to the greatest extent practicable adverse impacts on polar
    b. bears, their habitat, and on the availability for subsistence uses. Dynamic management approaches, such as temporal or spatial limitations in response to the presence of polar bears in a particular place or time or the occurrence of marine

mammals engaged in a particularly sensitive activity (such as feeding), must be used to avoid or minimize polar bear interactions and subsistence users of this resource.

1.All applicants:

i. Holders of an LOA must cooperate with the Service and other Federal, State, and local agencies to monitor the impacts of oil and gas industry (Industry) activities on polar bears.
ii. Holders of an LOA must designate a qualified individual or individuals to observe, record, and report on the effects of Industry activities on polar bears.
iii. Holders of an LOA must have an approved polar bear interaction plan on file with the Service and at work sites and polar bear awareness training must be provided to personnel. The *Nanuq Inc., AFC Northern Consturciton and Maintenance, LLC., Polar Bear and Wildlife Interaction Plan* (May 2015), and associated cover sheet are incorporated by reference into this LOA. All provisions must be compiled with unless specifically noted otherwise in the LOA.
iv. Holders of an LOA must contact affected subsistence communities to discuss potential conflicts caused by location, timing, and methods of proposed operations and submit to the Service a record of communication that documents these discussions. Documentation of communication has been provided by AFC to the Service.
v. If deemed appropriate by the Service, holders of an LOA will be required to hire and train polar bear monitors to alert crew of the presence of polar bears and initiate adaptive mitigation responses.

2.Onshore activities:

i. Holders of an LOA must make efforts to limit disturbance around known polar bear dens.
ii. Holders of an LOA seeking to carry out onshore exploration activities in known or suspected polar bear denning habitat during the denning season (November – April) must make efforts to locate occupied polar bear dens within and near proposed areas of operation, utilizing appropriate tools, such as, FLIR imagery and/or polar bear scent-trained dogs. All observed or suspected polar bear dens must be reported to the Service prior to the initiation of activities.
iii. Holders of an LOA must observe a 1.6 km (1 mi) operational exclusion zone around all known polar bear dens during denning

season (November – April, or until female and cubs leave the areas). Should previously unknown occupied dens be discovered within 1.6 km (1 mi) of activities, work must cease and the Service contacted for guidance. The Service will evaluate these instances on a case-by-case basis to determine the appropriate action. Potential actions may range from cessation or modification of work to conducting additional monitoring, and the holder of the LOA must comply with any additional measures specified.

iv. A map of potential coastal polar bear denning habitat can be found at: *http://alaska.usgs.gov/science/biology/polar_bears/products.html*. This measure ensures that the location of potential polar bear dens is considered when conducting activities in the coastal areas of the Beaufort Sea.

v. Holders of an LOA must restrict the timing of their activity to limit disturbance around dens.

3. Operating conditions for aircraft:

i. Operators of support aircraft should, at all times, conduct their activities at the maximum distance possible from concentrations of polar bears.

ii. Under no circumstances, other than an emergency, should aircraft operate at an altitude lower than 457 m (1,500 ft) within 805 m (0.5 mile) of polar bears observed on ice or land. Helicopters may not hover or circle above such areas or within 805 m (0.5 mile) of such areas. When weather conditions do not allow a 457 m (1,500 ft) flying altitude, such as during severe storms or when cloud cover is low, aircraft may be operated below the 457 m (1,500 ft) altitude stipulated above. However, when aircraft are operated at altitudes below 457 m (1,500 ft) because of weather conditions, the operator must avoid areas of known polar bear concentrations and should take precautions to avoid flying directly over or within 805 m (0.5 mile) of these areas.

iii. Plan all aircraft routes to minimize any potential conflict with active or anticipated polar bear subsistence hunting activity as determined through community consultations.

c. Monitoring: Depending on the location, timing, and nature of proposed activities, holders of an LOA will be required to do the following:

1. Maintain trained, Service-approved, onsite observers to carry out monitoring programs for polar bears necessary for initiating adaptive mitigation responses.

i. Polar bear monitors: Polar bear monitors will be required under the monitoring plan if polar bears are known to frequent the area or known polar bear dens are present in the area. Monitors will act as an early detection system for polar bear activity near Industry activity.

2. Develop and implement a site specific, Service-approved, marine mammal monitoring and mitigation plan to monitor and evaluate the effects of authorized activities on polar bears, and the subsistence use of this resource. The marine mammal monitoring and mitigation plan must enumerate the number of polar bears encountered during specified activities, estimate the number of incidental takes that occurred during specified seismic activities, and evaluate the effectiveness of prescribed mitigation measures.

3. Cooperate with the Service and other designated Federal, State, and local agencies to monitor the impacts of oil and gas activities in the Beaufort Sea on polar bears. Where insufficient information exists to evaluate the potential effects of proposed activities on polar bears and their subsistence use, holders of a LOA may be required to participate in joint monitoring and/or research efforts to address these information needs and insure the least practicable impact to these resources. Information needs in the Beaufort Sea include, but are not limited to:

i. Distribution, abundance, and habitat use patterns of polar bears; and
ii. Cumulative effects of multiple simultaneous operations on polar bears.

d. Reporting requirements: Holders of an LOA must report the results of specified monitoring activities to the Service MMM reporting email at fw7_mmm_reports@fws.gov.

1. Monitoring requirements include, but are not limited to:

i. Date, time, and location of observation;
ii. Number of bears, and their sex and age (if known);
iii. Observe name and contact information;
iv. Weather, visibility, and ice conditions at the time of observation;
v. Estimated closest point of approach for bears from personnel and facilities;
vi. Industry activity at time of sighting, possible attractants present;
vii. Bear behavior;
viii. Description of the encounter;
ix. Duration of the encounter; and

vii. Bear behavior;
viii. Description of the encounter;
ix. Duration of the encounter; and
x. Actions taken.

2. After-action monitoring reports: The results of monitoring efforts identified in the marine mammal monitoring and mitigation plan must be submitted to the Service for review within 90 days of completing the year's activities. Results must include, but are not limited to, the following information:

i. A summary of monitoring effort including: total hours, total distances, and distribution through study period;
ii. Analysis of factors affecting the visibility and detectability of polar bears by specified monitoring;
iii. Analysis of the distribution, abundance, and behavior of polar bear in relation to date, location, ice conditions and operational state; and
iv. Estimates of take based on density estimates derived from monitoring and survey efforts.

If a polar bear interaction escalates into a life threatening situation, section 101 (c) of the MMPA allows, without specific authorization, the take (including lethal take) of a polar bear if such taking is necessary for self-defense or to save the life of a person in immediate danger, and such taking is reported to the Service within 48 hours.

Per the *Programmatic Biological Opinion for the Beaufort Sea Incidental Take Regulations for Polar Bear, Pacific Walrus, and Polar Bear Critical Habitat* (July 2011), issuance of this LOA also completes consultation for polar bears pursuant to section 7 of the ESA of 1973, as amended. This LOA also serves as an "Incidental Take Statement" (ITS), which is required by the ESA in order for incidental take to be authorized. This LOA is valid for the period indicated on this authorization, unless extended or terminated in writing by the Service, MMM.

If you have any further questions, please contact Mr. Michael Hendrick or the Marine Mammals Management Office at (907) 786-3479 or (907) 786-3800 or email at michael_hendrick@fws.gov.

Chief, Marine Mammals Management

12/15/15
Date

United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
1011 East Tudor Road
Anchorage, Alaska 99503-6199

IN REPLY REFER TO:

AFES/MMM

LETTER OF AUTHORIZATION
Intentional Take
(15-INT-18)

ISSUED: December 9, 2015
EXPIRES: August 2, 2016

Alaska Frontier Constructors, Inc. (AFC) is authorized to take by harassment (deterrence activities) small numbers of polar bears (*Ursus maritimus*) associated with the 2016-2017 AFC Deadhorse Gravel Development program at the Sagavanirktok (Sag) River Floodplain in accordance with sections 101(a)(4)(A), 109(h) and 112(c) of the Marine Mammal Protection Act of 1972 (MMPA), as amended.

The proposed activities will occur in the summer months of June through October or until weather conditions may the work non-feasible. It will be a two season program with the start in 2016. The purpose is to provide the Deadhorse, Alaska, community with gravel for pad and road maintenance. The proposed Sag River gravel source is considered the best option. The close proximity to the Deadhorse community makes it an ideal site to provide the material for the demand for repair of degrading pads and roads.

A full description of activities can be found in the AFC *Proposal Submitted to Federal, Alaska State Agencies for the Temporary Gravel Extraction from a Sagavanirktok River Floodplain and to Create Overwintering Fish Habitat near Deadhorse, Alaska* ((March 9, 2015).

Section 101(a)(4)(A) of the MMPA states that, "Except as provided in subparagraphs (B) and (C), the provisions of this chapter shall not apply to the use of measures-

i. by the owner of fishing gear or catch, or an employee or agent of such owner, to deter a marine mammal from damaging the gear or catch;

ii. by the owner of other private property, or an agent, bailee, or employee of such owner, to deter a marine mammal from damaging private property;

iii. by any person, to deter a marine mammal from endangering personal safety; or

iv. by a government employee, to deter a marine mammal from damaging public property, so long as such measures do not result in the death or serious injury of a marine mammal."

Section 112(c) allows for the transfer of Federal authority "... as may be necessary to carry out the purposes of this title (Conservation and Protection of Marine Mammals) (CPMM))... and on such terms as he deems appropriate with any Federal or State agency, public or private institution, or other person."

Section 109(h)(1) states that, "nothing in this title [CPMM]... shall prevent a Federal, State, or local government official or employee or a person designated under section 112(c) from taking, in the course of his or her duties as an official, employee, or designee, a marine mammal in a humane manner (including euthanasia) if such taking is for-

A. the protection or welfare of the mammal,

B. the protection of the public health and welfare, or

C. the non-lethal removal of nuisance animals."

The purpose of authorizing taking by Level B non-lethal harassment, or deterrence, is to maintain human and bear safety and welfare in polar bear habitat. Authorizing Level B harassment take reduces the likelihood of death or injury of polar bears. This is accomplished by the following objectives:

- Prevent bears from associating food with humans and facilities.
- "Teach" bears to avoid people.
- Allow bears to use travel routes (natural and human made) to move along the coast.
- Prevent bears from extended use of areas around facilities.

This LOA is subject to the following conditions:

1. This LOA is restricted to Level B non-lethal harassment or deterrent activities.

2. AFC's *Nanuq Inc., AFC Northern Construction and Maintenance, LLC., Polar Bear and Wildlife Interaction Plan* (May 2015) is approved and all provisions must be complied with unless specifically noted otherwise in this LOA. A copy of this polar bear interaction plan must be available on site for all personnel.

3. AFC's operations managers, or designates, must be fully aware, understand, and be capable of implementing the conditions of this authorization.

4. This LOA is issued specifically to AFC who is responsible for ensuring **trained and qualified** personnel are assigned the task to harass (deter) polar bears. A list of trained personnel responsible for deterrence will be on file prior to initiation of activities with the Service Incidental Take Coordinator.

5. AFC is solely responsible for ensuring that personnel operating under this authorization meet all Federal and state laws and regulations regarding the use and carry of firearms, should firearms be used for bear deterrence.

6. AFC, or its designated agent, is responsible for documenting and reporting to the Service, MMM, at (907) 786-3800, all instances involving harassment activities as soon as possible and no later than 24 hours after the occurrence.

7. Harassment or deterrence techniques must not cause injury or death of a bear. Types of harassment or deterrence techniques may include, but are not limited to:

   - Bear monitors.
   - Air horns.
   - Electric fences.
   - Chemical repellents.
   - Acoustic recordings.
   - Vehicles.
   - Projectiles, such as, cracker shells, bean bags, rubber bullets, and screamers.

8. Prior to conducting a harassment activity, operators must:

   - Make a reasonable effort to reduce or eliminate attractants.
   - Secure site, notify supervisor and move personnel to safety.
   - Ensure bear has escape route(s).
   - Ensure communication with all personnel.

9. When conducting a harassment activity, operators must:

   - Keep in mind that the safety and welfare of the bear is second only to the safety and welfare of humans in a harassment or deterrence situation.
   - Chose the method that will have the least effect on the bear and increase the intensity of the method or use additional methods only if necessary.
   - Shout at the bear before using projectiles or other methods (avoidance conditioning).
   - Move bear in proper direction; continue with minimally necessary deterrents to receive desired result.

10. After a harassment event has occurred, operators must:

    - Monitor bears movement (to ensure no return).
    - Notify supervisor and personnel when it is safe to resume work.
    - Fill out report to be sent to the Service as required above (within 24 hours).

11. A final report of all encounters and harassment or deterrence events will be submitted to the Service, MMM no later than 60 days from the expiration date of this authorization.

12. Any lethal take or injury of a polar bear must be reported to the Service immediately.

This LOA is valid for the period indicated on this authorization, unless extended or terminated in writing by the Service, MMM Office.

Chief, Marine Mammals Management

12/15/15
Date