



United States Department of the Interior

FISH AND WILDLIFE SERVICE

1011 E. Tudor Rd.

Anchorage, Alaska 99503-6199

IN REPLY REFER TO

AFES/MMM

DEC 21 2006

Ms. Julie Lina
Regulatory and Environmental Affairs Coordinator
Pioneer Natural Resources Alaska, Inc.
700 G Street, Suite. 600
Anchorage, Alaska 99501

Dear Ms. Lina:

This responds to the letter Pioneer Natural Resources Alaska, Inc. (Pioneer) submitted to the U.S. Fish and Wildlife Service (USFWS) dated November 30, 2006, requesting a Letter of Authorization (LOA) for the incidental take of polar bears and Pacific walrus, and the intentional take for polar bears for the Oooguruk Development Program.

Enclosed is a LOA (06-16) that would allow Pioneer to take small numbers of polar bears incidental to oil and gas industry exploration activities at the above location identified in your LOA request. The proposed start date for this project is January 2007. The Oooguruk Development Program includes ongoing work at the offshore drill site and the onshore production tie-in pad. These activities are discussed in detail in the Oooguruk Development Project, Project Updates, August 2006. If any changes develop in your project during the 2006-07 winter season, such as activities or location, please notify the Marine Mammals Management Office prior to the planned operation. This would allow us to evaluate the activity and, if appropriate, amend your LOA. This authorization is issued in accordance with our regulations listed at 71 FR 43926, dated August 2, 2006. Please review these regulations.

Historical polar bear denning activity reveals that some creek cutbanks and river bluffs provide suitable denning habitat for polar bears, especially in and around the larger, braided rivers, such as the Colville River delta and Kalubik Creek. Disturbance during denning could lead to abandonment of dens and possible mortality to cubs. The USFWS seeks to limit disturbance to maternal polar bear den sites, both known dens and those areas that could possibly be preferred by denning polar bears. With this in mind, use caution when operating near these areas during the maternal denning period (mid November to mid April). Furthermore, Pioneer will provide copies of the polar bear observation form to all Pioneer contractors operating under the LOA. Report any polar bear sightings, signs to this office by phone or using the polar bear observation form. Report any possible den locations that are found during work activities immediately to our office.

In addition, this letter includes a harassment authorization, where Pioneer and its representatives are granted authorization to take polar bears by harassment (deterrent activities) for the protection of both human life and polar bears while conducting activities in polar bear habitat in all portions of the Oooguruk Development Project. This authorization is issued specifically to Pioneer employees who are responsible for ensuring that trained and qualified personnel are assigned the task to harass (deter) polar bears. It is the responsibility of Pioneer personnel to report all polar bear harassment events to our Marine Mammals Management Office within 24 hours. This authorization is effective for the period, date of issuance to December 31, 2007. Intentional take is authorized under sections 109(h) and 112(c) of the Marine Mammal Protection Act.

The USFWS believes that protection measures for polar bears described in Pioneer's Bear and Pacific Walrus Avoidance and Human Interaction/Encounter Plan contain appropriate safeguards to limit human/animal interactions. Pioneer field camps and personnel can limit encounters of polar bears by being observant of approaching animals (i.e., the use of polar bear guards) and breaking off interactions, if practicable, by allowing the animals to continue their travel. We encourage Pioneer to implement terms of this plan and in the interim Service biologists are available for consultation if questions or concerns arise regarding polar bears during the project period at the phone numbers listed below and noted in your interaction plan.

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 imminently necessary in self-defense or to save the life of a person in immediate danger, and such taking is reported to the USFWS, Marine Mammal Management Office within 24 hours.

Polar bear conservation has benefited from monitoring programs associated with the Incidental Take Program since 1993. Monitoring serves to assess the effect of industrial activities on polar bears by evaluating trends and effects of bear encounter rates, take frequency, as well as the location and timing of encounters. In addition, USFWS biologists are available for consultation if questions or concerns arise during the project period at the phone numbers listed below and noted in your interaction plan.

Should you have any further questions contact Mr. Craig Perham of our Marine Mammals Management Office at (907) 786-3800 or 786-3810.

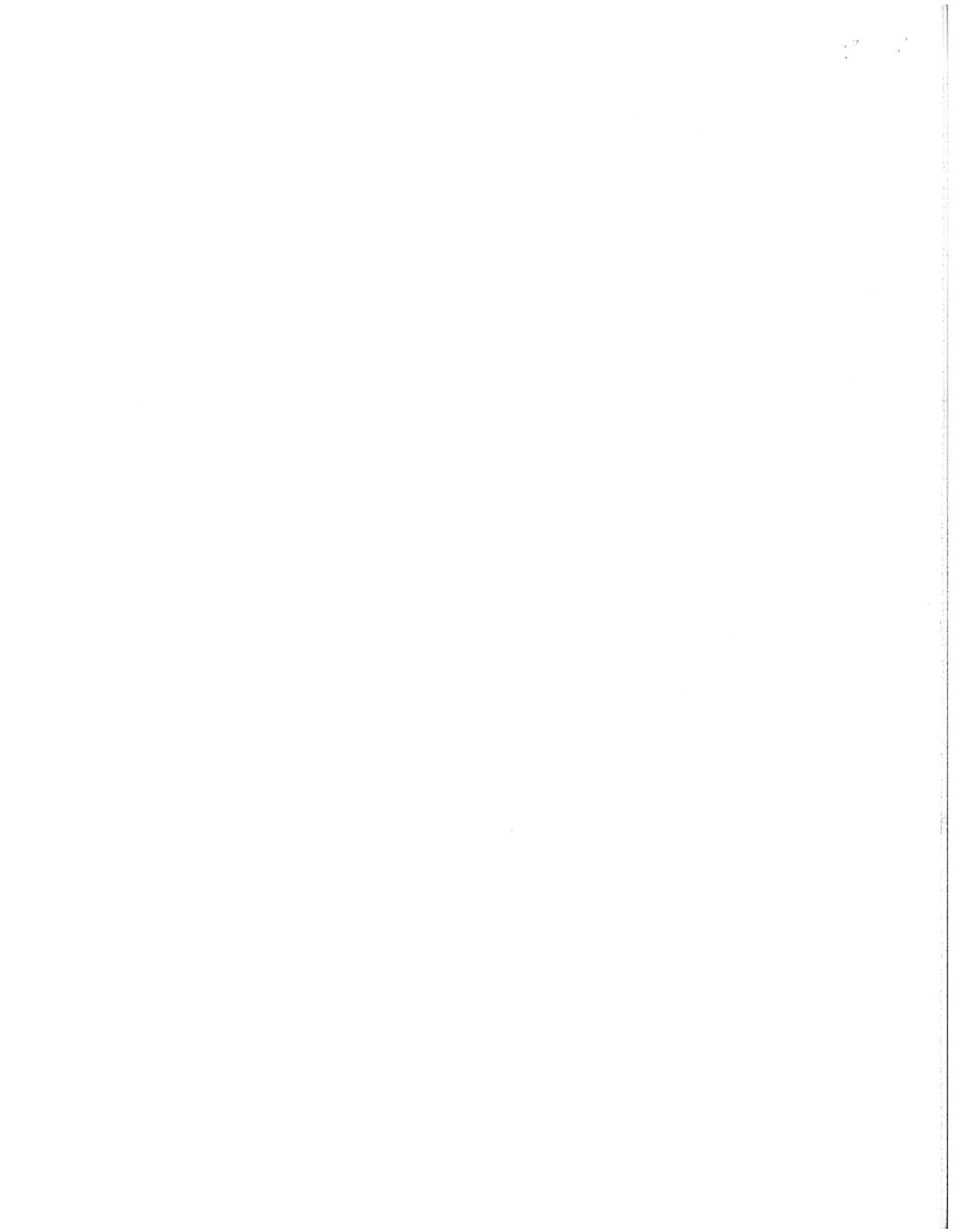
Sincerely,



Rosa Meehan, Ph.D.

Chief, Marine Mammals Management

cc: Mr. Richard Shideler, ADF&G
LE
FFWFO



MMM

ISSUED: December 12, 2006
EXPIRES: December 12, 2007

**LETTER OF AUTHORIZATION
(06-16)**

Pioneer Natural Resources Alaska, Inc. (Pioneer) is hereby authorized to take small numbers of polar bears incidental to activities occurring during the Oooguruk Exploration Project. This includes, but is not limited to, all activities associated with the ongoing work at the offshore drill site and the onshore production tie-in pad. These activities are discussed in detail in the Oooguruk Development Project, Project Updates, August 2006. The LOA is valid from the date of issuance to December 12, 2007, or the close of tundra travel for the winter season of 2006-07, whichever comes first. This authorization and the required conditions below includes contractors of Pioneer performing Pioneer-approved work under the scope of operations to be conducted. Authorization is subject to the following conditions:

1. The Oooguruk Development Project; Bear and Pacific Walrus Avoidance and Human Interaction/Encounter Plan, July 2005, is approved and all provisions unless specifically noted otherwise are incorporated into this Letter of Authorization by reference. A copy of this polar bear interaction plan must be available on site for all personnel.
2. Pioneer Operations Managers, or their designates, must be fully aware, understand, and capable of implementing the conditions of this authorization.
3. Intentional take is prohibited under this authorization.
4. This authorization is valid only for those activities identified in the request for a Letter of Authorization dated November 30, 2006.
5. Polar bear monitoring, reporting, and survey activities must be conducted in accordance with 50 CFR section 18.128. In addition, Pioneer must comply with the following monitoring, mitigation, and reporting requirements:

- Pioneer must not conduct activities that operate nor pass within 1 mile of known polar bear dens, and all observed dens must be reported to the Marine Mammals Management Office, Fish and Wildlife Service immediately. Should occupied dens be identified within one mile of activities, work in the immediate area will cease and Service must be 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 Pioneer must comply with any additional measures specified.
- Pioneer must designate a qualified individual or individuals to observe, record, and report the effects of the activity on polar bears and Pacific walrus to the Service within 24 hours of visual observation;
- at the discretion of the Fish and Wildlife Service, Pioneer must allow the Fish and Wildlife Service to place an observer on the site to monitor the impacts of the activity on polar bears;
- Pioneer must submit an annual monitoring report to the Marine Mammals Management Office as required under 18 CFR 18.128(f), which will be received by January 15, 2008.

6. This authorization expires December 12, 2007.



Chief, Marine Mammals Management

DEC 21 2006

Date

AFES/MMM

ISSUED: December 12, 2006
EXPIRES: December 12, 2007

U.S. Fish and Wildlife Service

AUTHORIZATION TO TAKE, BY HARASSMENT, POLAR BEARS

Under Sections 109(h) and 112(c) of the Marine Mammal Protection Act of 1972, as amended, Pioneer Natural Resources Alaska, Inc. (Pioneer) is authorized to take, by harassment, polar bears during development activities in association with the Oooguruk Development Project.

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

1. Prevent bears from associating food with humans and facilities
2. "Train" bears to avoid people
3. Allow bears to use travel routes (natural and man-made) to move along the coast
4. Prevent bears from extended use of areas around facilities
5. Prevent bears from entering the developed parts of the oilfield

Harassment authorization is subject to the following conditions:

1. The polar bear interaction plan (The Oooguruk Development Project; Bear and Pacific Walrus Avoidance and Human Interaction/Encounter Plan, July 2005) is approved and all provisions, unless noted specifically, are incorporated into this Letter of Authorization by reference. A copy of the polar bear interaction plan must be available on site for all personnel.
2. Pioneer Operations Managers, or their designates, must be fully aware, understand, and capable of implementing the conditions of this authorization.
3. This authorization is restricted to harassment activities.

4. Authorized individuals are responsible for documenting and reporting to the U.S. Fish and Wildlife Service, Marine Mammals Management Office, (907) 786-3800, all instances involving harassment activities as soon as possible and not later than 24 hours after the occurrence.
5. Activities will not operate nor pass within 1 mile of known polar bear dens, and all observed dens will be reported to the Marine Mammals Management Office, Fish and Wildlife Service immediately. Should occupied dens be identified within one mile of activities, work in the immediate area will cease and Service will be contacted for guidance. The Service will evaluate these instances on a case-by-case basis to determine the appropriate action. Potential responses may range from cessation or modification of work to conducting additional monitoring.
6. A final report of all encounters and hazing events must be submitted to the U.S. Fish and Wildlife Service, Marine Mammals Management Office within 60 days from the expiration date of this authorization.
7. Hazing techniques must not cause the injury or death of a bear. Types of hazing techniques may include, but are not limited to:
 - Bear Monitors
 - Air horns
 - Electric fences
 - Chemical repellents
 - Acoustic recordings
 - Vehicles
 - Projectiles: cracker shells, bean bags, rubber bullets, screamers, etc.
8. Prior to conducting a harassment activity, operators must:
 - Reduce/eliminate attractants
 - Secure site; notify supervisor; move personnel to safety
 - Ensure bear has escape route(s)
 - Ensure communication with all personnel
9. When conducting a harassment activity, operators must:
 - 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 projectile (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 bear movement (to ensure no return)
- Notify supervisor and personnel to resume work
- Fill out report to be sent to the Service as required under condition 4 (within 24 hours)

11. This Authorization is valid for the period indicated on this authorization, unless extended or terminated in writing by the U.S. Fish and Wildlife Service, Marine Mammals Management Office.

Signed: 

DEC 21 2006

Date: _____

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both manual and automated techniques. The goal is to ensure that the information gathered is both reliable and comprehensive.

The final part of the report provides a summary of the findings and offers recommendations for future work. It suggests that further research should be conducted to explore the long-term effects of the current findings.

The data collected over the past six months shows a steady increase in the number of transactions. This is particularly notable in the latter half of the period, where there was a significant spike in activity.

The analysis also revealed that the majority of transactions are processed within a 24-hour period. This indicates a high level of efficiency in the current system. However, there are still some areas where delays occur, which need to be addressed.

Overall, the results of this study are promising. They demonstrate that the current processes are largely effective, but there is still room for improvement. The recommendations provided are intended to help address these issues and optimize the system further.

The following table provides a detailed breakdown of the data collected during the study. It shows the number of transactions per month, categorized by type and value range.

Month	Transaction Type	Value Range	Count
January	Retail	Under \$100	120
		\$100 - \$500	80
	Wholesale	Under \$100	40
		\$100 - \$500	20
February	Retail	Under \$100	130
		\$100 - \$500	90
	Wholesale	Under \$100	50
		\$100 - \$500	30
March	Retail	Under \$100	140
		\$100 - \$500	100
	Wholesale	Under \$100	60
		\$100 - \$500	40
April	Retail	Under \$100	150
		\$100 - \$500	110
	Wholesale	Under \$100	70
		\$100 - \$500	50
May	Retail	Under \$100	160
		\$100 - \$500	120
	Wholesale	Under \$100	80
		\$100 - \$500	60
June	Retail	Under \$100	170
		\$100 - \$500	130
	Wholesale	Under \$100	90
		\$100 - \$500	70

The data shows a clear upward trend in transaction volume over the course of the study. This is likely due to a combination of factors, including increased marketing efforts and a growing customer base.

The analysis also identified some key areas for improvement. For example, there were several instances of delayed processing, which could be mitigated by streamlining the workflow. Additionally, more robust security measures should be implemented to protect sensitive data.

In conclusion, the study has provided valuable insights into the current state of the system. The findings are a mix of positive results and areas for growth. By implementing the recommended changes, the organization can continue to improve its performance and serve its customers better.