



IN REPLY REFER TO:

United States Department of the Interior

FISH AND WILDLIFE SERVICE

1011 E. Tudor Road
Anchorage, Alaska 99503-6199



AFES/MMM

19 MAR 2012

Mr. William "Randy" Reed
Permits and Regulatory Compliance
CGGVeritas
2450 Cinnabar Loop
Anchorage, Alaska 99507

Dear Mr. Reed:

Thank you for your request submitted on behalf of CGGVeritas (Veritas) to the U.S. Fish and Wildlife Service (Service) dated January 25, 2012, requesting a Letter of Authorization (LOA) for the incidental take of polar bears for the Great Bear 3D seismic program for oil and gas exploration.

Enclosed is an LOA (12-06), granting Veritas authorization to take small numbers of polar bears incidental to oil and gas industry exploration activities at the locations identified in your LOA request that are within the geographical region of the Beaufort Sea Incidental Take Regulations.

Activities will occur within the defined area of the Great Bear 3D project located along the Sagavanirktok River drainage in the vicinity west and north of Franklin Bluffs. If additional seismic prospects outside of the area previously identified are developed during the 2012 winter/spring season you are requested to notify the Service of their locations prior to the planned operation. This will allow us to evaluate the activity and, if appropriate, to amend your LOA.

Historic polar bear denning activity reveals that polar bear denning habitat occurs along creek cutbanks and river bluffs. For example, approximately 1782 miles (2870 km) of potential polar bear denning habitat is located between the Colville River and the Canning River alone. Disturbance during denning could lead to abandonment of dens and possible mortality to cubs. Seismic vibroseis activities occurring near preferred denning habitat may encounter denning polar bears. The Service 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, please use caution when operating near these areas during the maternal denning period (mid November to mid April).

The U.S. Geological Survey has posted information regarding polar bear denning habitat including the polar bear den habitat GIS coverage. The den habitat map (ARC/INFO export file), the mapping manuscript (PDF file) and a picture of den habitat (JPG file) are now available

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for downloading on the Alaska Science Center website (http://alaska.usgs.gov/science/biology/polar_bears/pubs.html). Please use these resources when planning activities in potential denning areas. You must contact us within 24 hours if any dens are found during your activities. You must also: 1) provide copies of the polar bear observation form to all Veritas contractors operating under the LOA; and 2) report any polar bear sightings or signs to this office by phone, FAX, or email using the polar bear observation form. If questions or concerns arise during the project period, Service biologists are available for consultation at the phone numbers listed below, and noted in your interaction plan.

In addition to an LOA for incidental take, this letter includes an Intentional Take Authorization (LOA 12-INT-08), granting Veritas and its representatives authorization to take polar bears by harassment (deterrent activities) for the protection of both human life and polar bears while conducting oil and gas industry exploration activities in polar bear habitat during the 2012 winter/spring season. This authorization is issued specifically to Veritas employees who are responsible for ensuring that trained and qualified personnel are assigned the task of harassing (detering) polar bears. It is the responsibility of Veritas personnel to report all polar bear harassment events to the Service within 24 hours. Intentional take is authorized under sections 101 (a)(4)(A), 109(h), and 112(c) of the Marine Mammal Protection Act (MMPA).

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 for self-defense or to save the life of a person in immediate danger, and such taking is reported to the Service within 24 hours.

Per the *Programmatic Biological Opinion (Tier 1 BO) 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, Pacific walrus, and polar bear critical habitat pursuant to section 7 of the Endangered Species Act (ESA). This LOA also serves as an "Incidental Take Statement" (ITS), which is required by the ESA in order for incidental take to be authorized.

Reasonable and prudent mitigation measures, as well as implementing terms and conditions were included by the Service in the Tier 1 BO and have been incorporated into the LOA process. Issuance of this ITS, with the LOA completes ESA requirements for authorization of incidental take of polar bears. Compliance with the terms and conditions of this LOA ensures that the LOA holder is also in compliance with the ESA.

An additional requirement of this LOA is for Veritas to provide to the Service observational data of polar bears throughout the project and a complete report of all observations at the conclusion of the project. This report meets the tracking and reporting requirements relative to the documentation of take as required by the MMPA and the ESA.

This authorization is issued in accordance with MMPA Incidental Take Regulations published in the *Federal Register* (76 FR 47010), dated August 3, 2011. Please review these regulations.

Mr. William "Randy" Reed

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If you have any further questions, please contact Mr. Craig Perham, at (907) 786-3810, or Mr. Christopher Putnam, at (907) 786-3844, of our Marine Mammals Management Office.

Sincerely,



Jenifer Kohout
Acting Chief, Marine Mammals Management

Enclosures

cc: Mr. Richard Shideler, Alaska Department of Fish and Game
Fairbanks Fish and Wildlife Field Office (FFWFO)
Office of Law Enforcement (OLE)
North Slope Borough Department of Law



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U.S. Fish and Wildlife Service

LETTER OF AUTHORIZATION (12-06)

ISSUED: March 19, 2012
EXPIRES: May 31, 2012

CGGVeritas (Veritas) is hereby authorized to take small numbers of polar bears incidental to activities occurring during the 2012 Great Bear 3D winter/spring seismic survey program. Activities for this project are discussed in detail in the *Plan of Operations, 2012 Winter Seismic Survey, Great Bear 3D, North Slope, Alaska, State Lands and Waters* received with your application packet.

This authorization is subject to the following conditions:

1. The Operations Manager, or equivalent, must be fully aware, understand and be capable of implementing the conditions of this authorization.
2. This authorization is valid only for those activities identified in the request for a Letter of Authorization (LOA) dated January 25, 2012.
3. The polar bear interaction plan, *APPENDIX B, Field Operating Procedure, Polar Bear Protocol* and *APPENDIX C, Polar Bear Awareness and Interaction Plan*, is approved and all provisions unless specifically noted are incorporated into this authorization by reference. A copy of the current polar bear interaction plan must be available on site for all personnel.
4. Intentional take is not authorized under this LOA.
5. Polar bear monitoring, reporting, and survey activities will be conducted in accordance with 50 CFR 18, section 18.128. The basic monitoring and reporting requirements follow:
 - Veritas must cooperate with the U.S. fish and Wildlife Service (Service), and other designated Federal, State, or local agencies to monitor the impacts of oil and gas activities on polar bears.



- Veritas must not conduct activities that operate nor pass within one mile (approximately 1600 meters) of known polar bear dens, and all observed dens must be reported to the Service within 24 hours of discovery. Should occupied dens be identified within one mile of activities, Veritas must cease work within the immediate area and contact the Service 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 Veritas must comply with any additional measures specified.
 - Veritas must designate a qualified individual or individuals to observe, record, and report the effects of the activity on polar bears and must report evidence of polar bears such as tracks, carcass, or scat to the Service within 24 hours of visual observation.
 - Veritas must allow the Service to have an observer on site to monitor the impacts of its activity on polar bears, at the discretion of the Service.
 - Veritas must submit an annual monitoring report to the Service as required under 50 CFR 18.128(f), which will be received no later than 90 days after the expiration date of the LOA.
6. In the *Programmatic Biological Opinion for Polar Bears, Pacific Walrus, and Polar Bear Critical Habitat on Beaufort Sea Incidental Take Regulations (Regulations) (July 2011)*, the Service determined the total incidental take anticipated as a result of the issuance of the Regulations is not likely to result in jeopardy to the polar bear or Pacific walrus, and will not adversely modify polar bear critical habitat. In order for an Incidental Take Statement (ITS) to be provided: (1) the proposed activity must provide the required information, as described in the §18.124 of the Regulations, (2) the LOA must include mitigation measures appropriate for the specific activity and location, as described in §18.128 of the Regulations, and (3) the incidental take for the specific activity must be consistent with the negligible impact finding for the total take allowed under the Regulations.
7. The Service has determined that the proposed actions meet these three requirements. Therefore, issuance of this LOA also completes Endangered Species Act (ESA) requirements for authorization of incidental take of the polar bear. Compliance with the terms and conditions of the above LOA insures that the LOA holder is also in compliance with the ESA.

8. This Letter of 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.


Acting Chief, Marine Mammals Management

3/19/12
Date



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FISH AND WILDLIFE SERVICE

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U.S. Fish and Wildlife Service

AUTHORIZATION TO TAKE, BY HARASSMENT, POLAR BEARS (12-INT-08)

ISSUED: March 19, 2012

EXPIRES: May 31, 2012

Under sections 101 (a)(4)(A), 109(h) and 112(c) of the Marine Mammal Protection Act of 1972 (MMPA), as amended, CGGVeritas (Veritas) is authorized to take polar bears by harassment (deterrent activities) during activities associated with the 2012 Great Bear 3D winter/spring seismic survey program. Activities for this project are discussed in detail in the *Plan of Operations, 2012 Winter Seismic Survey, Great Bear 3D, North Slope, Alaska, State Lands and Waters* received with your application packet.

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:

- Prevent bears from associating food with humans and facilities.
- “Condition” bears to avoid people (avoidance conditioning).
- Allow bears to use travel routes (natural and man-made) to move along the coast.
- Prevent bears from extended use of areas around facilities.
- Prevent bears from entering the developed parts of the oilfield.

This harassment authorization is subject to the following conditions:

1. The polar bear interaction plan, *APPENDIX B, Field Operating Procedure, Polar Bear Protocol* and *APPENDIX C, Polar Bear Awareness and Interaction Plan*, is approved and all provisions unless specifically noted are incorporated into this authorization by reference. A copy of the current polar bear interaction plan must be available on site for all personnel.
2. Veritas operations managers, or designees, must be fully aware, understand and be capable of implementing the conditions of this authorization.
3. This authorization is restricted to harassment activities.



4. Veritas is responsible for ensuring that personnel assigned the task of deterring polar bears are trained and qualified.
 - In the event that firearms are used as a deterrent tool, Veritas is solely responsible for ensuring that their personnel meet Federal and State laws and regulations regarding the use and carry of firearms.
 - Furthermore, Veritas is solely responsible for ensuring that a U.S. Fish and Wildlife Service (Service)-approved procedure for handling less-lethal ammunition in a safe and proper manner is on file with the Service, if firearms are to be used as a deterrent tool.
5. Authorized individuals are responsible for documenting and reporting to the Service, at (907) 786-3800, all instances involving harassment activities as soon as possible and not later than 24 hours after the occurrence.
6. Project activities, including any associated intentional take activities, must not occur nor pass within one mile (approximately 1600 meters) of known polar bear dens. All observed dens will be reported to the Service as soon as possible and no later than 24 hours. Should occupied dens be identified within one mile of activities, Veritas must cease work in the immediate area and contact the Service 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. Veritas must comply with any additional measures specified.
7. Consistent with basic polar bear monitoring and reporting requirements, Veritas shall:
 - Cooperate with the Service to monitor the impacts of project activities on polar bears.
 - Designate a qualified individual or individuals to observe, record, and report the sightings of polar bears.
 - Report all sightings of polar bears or polar bear signs (using the polar bear observation form) within 24 hours of initial observation by FAX to (907) 786-3816 or via email to craig_perham@fws.gov.
 - Submit a final report to the Service within 60 days after the expiration of this authorization.
8. Harassment, or deterrent 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 (to be used with caution and with appropriate training): cracker shells, bean bags, rubber bullets and/or "screamers."

9. Prior to conducting a harassment activity, designated personnel must:

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

10. When conducting a harassment activity, designated personnel must:

- Chose the method that will have the least adverse effect on the bear and only increase the intensity of the method, or use additional methods, if necessary.
- Shout at the bear before using projectile (avoidance conditioning).
- Move bear in safe direction and continue with minimal necessary deterrents to achieve desired result.

11. After a harassment event has occurred, designated personnel must:

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

12. This Letter of 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.



Acting Chief, Marine Mammals Management

3/19/12

Date