United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Road
Anchorage, Alaska 99503-6199

IN REPLY REFER TO:

AFES/MMM

12 JAN 2011

Ms. Susan Childs
Shell Exploration and Production Company
3601 C Street, Suite 1000
Anchorage, Alaska 99503

Dear Ms. Childs:

This responds to your October 8, 2010, request for Letters of Authorization (LOA) for the incidental and intentional take of polar bears in regards to the Shell Offshore, Inc. (Shell) 2011 Ice Observation and On-Ice Argos Data Buoy Deployment Program in the Beaufort and Chukchi seas.

Enclosed is a LOA (11-04) that would allow Shell 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 2011. Shell plans to make up to four deployment and reconnaissance flights over its Beaufort Sea Outer Continental Shelf (OCS) leases north of Deadhorse and in Harrison and Camden bays. The flights will deploy three to six Argos buoys to be used to track ice flow directions. All provisions contained within Shell's polar bear interaction plan are incorporated by reference into this LOA.

Due to their importance as polar bear denning habitat, the larger barrier islands, such as the Jones Island group, Cross, Tigvariak and Flaxman islands, are areas where the U.S. Fish and Wildlife Service (Service) prefers to minimize disturbance to possible denning bears. The flight paths for the buoy deployment (as described in Shell's Figures 2 and 3) are adequate for minimizing disturbance of potential bear dens on those islands.

If any changes develop in your project during the 2011 winter season, such as flight paths, activities or location, please notify the Marine Mammals Management Office (MMM) prior to the planned operation. This would allow us to evaluate the activity and, if appropriate, amend your LOA.

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. The Service believes that monitoring and protection measures

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for marine mammals described in Shell's Polar Bear and Pacific Walrus Awareness and Interaction Plan, North Slope and Chukchi Sea, April 2008, are appropriate. Furthermore, Service 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.

In addition, this letter includes a harassment authorization (enclosed: 11-INT-04), for Shell and its representatives 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 during the 2011 Beaufort Sea Ice Observation and On-Ice Argos Data Buoy Deployment Program and the 2011 Chukchi Sea Ice Observation flights. This LOA is issued specifically to Shell employees who are responsible for ensuring that trained and qualified personnel are assigned the task to harass (deter) polar bears. Included are the Service-approved protocols for deterring polar bears using a helicopter, if necessary. It is the responsibility of Shell personnel to report all polar bear harassment events to MMM within 24 hours. This LOA is effective from the date of issuance to June 30, 2011. 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 necessary in self-defense or to save the life of a person in immediate danger, and such taking is reported to the Service, MMM within 24 hours.

Furthermore, in accordance with Section 7 of the Endangered Species Act of 1973 (ESA), as amended issuance of this LOA also fulfills the requirements for Tier 2 Consultation of the Programmatic Biological Opinion (BO) for the activities described herein. In the "Programmatic Biological Opinion for Polar Bears (*Ursus maritimus*) on Beaufort Sea Incidental Take Regulations"(Regulations) (June 2008; Tier 1 BO), the Service determined that the total take anticipated as a result of the issuance of the Regulations is not likely to result in jeopardy to the polar bear, in accordance with Section 7 of the ESA. In order for the Tier 2 BO to be consistent with the "no jeopardy" conclusion of the Tier 1 BO and for an ESA Incidental Take Statement (ITS) to be provided: (1) the proposed activity must provide the required information, as described in §18.124 of the Regulations, (2) the LOA must include any mitigation measures that the MMM believes appropriate for the specific activity and location, as described in §18.128 of the Regulations, and (3) the MMM must determine that the incidental take for the specific activity will be consistent with the negligible impact finding for the total take allowed under the Regulations.

Reasonable and prudent mitigation measures, as well as implementing terms and conditions were included for MMM 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 the polar bear. Compliance with the terms and conditions of this LOA insures that the LOA holder is also in compliance with the ESA.

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

This LOA is issued in accordance with our regulations listed at 71 FR 43926, dated August 2, 2006. Should you have any further questions please contact Mr. Craig Perham of our Marine Mammals Management Office, at (907) 786-3800 or 786-3810.

Sincerely,

Rosa Meehan, Ph.D.
Marine Mammals Management

Enclosure

cc: Mr. Walt Sandel, Shell Exploration and Production Company
Mr. Richard Shideler, ADF&G
Fairbanks Fish and Wildlife Field Office (FFWFO)
USFWS Office of Law Enforcement (OLE)
North Slope Borough Department of Law

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Road
Anchorage, Alaska 99503-6199

IN REPLY REFER TO:

AFES/MMM

LETTER OF AUTHORIZATION
(11-04)

ISSUED: January 10, 2011
EXPIRES: June 30, 2011

Shell Offshore, Inc. (Shell) is hereby authorized to take small numbers of polar bears incidental to activities occurring during the 2011 Beaufort Sea Ice Observation and On-Ice Argos Data Buoy Deployment Program. Shell plans to make up to four reconnaissance flights in Harrison and Camden bays. The flights will deploy three to six Argos buoys to be used to track ice flow directions.

The Letter of Authorization (LOA) is valid from the date of issuance to June 30, 2011. This LOA and the required conditions below include contractors of Shell performing Shell-approved work under the scope of operations to be conducted. The LOA is subject to the following conditions:

1. The "Polar Bear and Pacific Walrus Awareness and Interaction Plan, North Slope and Chukchi Sea, April 2008," and Addendum 2009-2, are 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.

2. Shell Operations Managers, or their designates, must be fully aware, understand, and capable of implementing the conditions of this LOA.

3. Intentional take is prohibited under this LOA.

4. This authorization is valid only for those activities identified in the request for a Letter of Authorization dated October 8, 2010, and outlined in the, "Request for Letter of Authorization for the Incidental Take of Polar Bears and the Intentional Take of Polar Bears by Harassment; Beaufort Sea Ice Observation and On-Ice Data Buoy Deployment within the Outer Continental Shelf of the Eastern Beaufort Sea, Alaska, Winter/Spring 2011."

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5. Polar bear monitoring, reporting, and survey activities must be conducted in accordance with 50 CFR Section 18.128. In addition, Shell must comply with the following monitoring, mitigation, and reporting requirements:

- Shell must cooperate with the Fish and Wildlife Service (Service), and other designated Federal, State, or local agencies to monitor the impacts of oil and gas exploration activities on polar bears.

- Shell must not conduct activities that operate nor pass within one mile (1.609 km.) of known polar bear dens, and all observed dens must be reported to the Service's Marine Mammals Management Office (MMM) 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 Shell must comply with any additional measures specified.

- Due to their importance as polar bear denning habitat, flight paths for the surveys will be offset from the coastline of Beaufort Sea barrier islands (including the Jones Island group, Cross, Flaxman and Tigvariak islands) by at least ½ mile and 1,500 feet above ground level (AGL).

- If requested, flight paths of the reconnaissance surveys will be made available to the Service by Shell.

- If any changes develop in your project during the 2011 winter season, such as flight paths, activities or location, notify the MMM prior to the planned operation.

- Shell must designate a qualified individual or individuals to observe, record, and report the effects of the activity on polar bears to the Service within 24 hours of visual observation.

- Every polar bear observed will be recorded on a Polar Bear Observation Form. Information within the observation report will include, but is not limited to:

    1. Date;
    2. Time;
    3. Observer name;
    4. Contact number/email;
    5. Location, with latitude, longitude, and datum, if applicable;
    6. Weather conditions at time of observation;

7. Temperature;
8. Visibility;
9. Number of bears: sex and age;
10. Estimated closest point of bears from personnel and facilities;
11. Possible attractants present;
12. Bear behavior;
13. A description of the encounter;
14. Duration of the encounter;
15. Type of deterrents used and distance from bear when used;
16. Agency/Contacts.

- Evidence of polar bears, such as tracks, carcass, or dens, will also be reported.

- At the discretion of the Service, Shell must allow the Service to place an observer on the site to monitor the impacts of the activity on polar bears.

- Shell must submit an annual monitoring report to the MMM as required under 18 CFR 18.128(f), which will be received within 90 days after completion of the project.

6. Per the "Programmatic Biological Opinion for the Beaufort Sea Incidental Take Regulations for Polar Bear (June 2008)", your request also triggers the second of the two-tiered programmatic process. In order for incidental take of the polar bear to be exempted from the prohibitions of the ESA, the LOA also serves as an "Incidental Take Statement" (ITS), required under Section 7 of the ESA. Issuance of the LOA/ITS fulfills the requirements for Tier 2 Consultation of the Programmatic Biological Opinion for the activities described in this letter.

7. This LOA 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.

Rosa Meehan

Chief, Marine Mammals Management

1 2 JAN 2011

Date