



IN REPLY REFER TO:

United States Department of the Interior

FISH AND WILDLIFE SERVICE

1011 E. Tudor Road
Anchorage, Alaska 99503-6199



AFES/MMM

NOV 12 2009

Mr. Dale Pittman
Alaska Production Manager
Joint Interest U.S.
ExxonMobil Production Company
P.O. Box 196601
Anchorage, Alaska 99519

Dear Mr. Pittman:

I appreciate your attendance at our meeting November 6, 2009, to discuss required actions to limit the harassment of denning bears following issues related to a maternal polar bear den at mile 14.7 on the Badami ice road last spring. The U.S. Fish and Wildlife Service (Service) looks forward to working more closely with you to improve communication and to help oil and gas companies improve standard operating procedures regarding maternal polar bear dens. I am including a list of the meeting attendees and a copy of the requirements the Service developed to minimize polar bear denning disturbances while allowing companies to continue to conduct their activities. The Service views these requirements as a two-pronged approach, much like the development of an oil spill plan. First, they seek to improve den detection to limit interactions with denned bears later in the season; and second, in the event a bear emerges along a travel corridor, they ensure that the appropriate measures are in place to reduce the risk and minimize impacts to the bear. These requirements must become part of the standard operating procedures of your company's polar bear interaction plan if you will be operating in this area from Endicott Causeway to the Canning River during the polar bear denning season.

The Service will work with operators to develop and employ these requirements. If you have any questions, please contact Mr. Craig Perham of our Marine Mammals Management Office at (907) 786-3800.

Sincerely,

Regional Director

Enclosures

cc: USFWS, Office of Law Enforcement (OLE)

**TAKE PRIDE
IN AMERICA**

TIMELINE - BADAMI ROAD CLOSURE FOR POLAR BEAR

Thursday, March 26, 2009	Polar bear reported in area of mile 14.7 Badami Road
Saturday, March 28, 2009	Polar bear tracks in area of mile 14.7 Badami Road - den located
Monday, March 30, 2009	Polar bear den investigated with FWS approval - bear confirmed in den
Tuesday, March 31, 2009	Conditional use of Badami Road allowed by FWS 1500 Check points conditioned, 24/7 observer conditioned, if bear sighted, road closed 2100 Camera set up on Badami Road and PB den; den FLIRed-bear in den
Wednesday, April 01, 2009	(overnight) FWS provides industry with mitigation measures 1400 Conference call between FWS and Industry on mitigation measures - during call bear emerges from den - FWS closes Badami Road and schedules conference call for 1400 w/all parties 1600 FWS allows 2 hours for traffic to clear off Badami Road Emergency use only following clear road. 2230 Polar Bear and 2 cubs leave den site and head onto sea ice.
Thursday, April 02, 2009	FWS maintains road closure to allow bear to return to den
Saturday, April 04, 2009	730 FWS authorizes opening Badami Road

Infractions in association with Polar bear den at MP 14.7 Badami ice road, Spring 2009

Types of Infractions on Badami ice road

1. **Speeding**
 - a. Currently a Subjective measurement
 - b. When was signage in place?
 - c. Semis driving proportionally faster than smaller PUs
 - i. On 4/1/09: at least 24/94 vehicles classified as driving "fast"
 - d. Crowley/Catco rolligons all driving fast
 - i. 9.38
 - ii. 15.13
 - iii. 17.03
2. **Driving on road during closure**
 - a. Were monitor and guard posts operating properly?
 - b. Timing of closures
 - i. USFWS vs. industry timeline
 - ii. Essential traffic until bear shows
 - iii. Timeframe window to move vehicles off road after bear shows
 - iv. Full closure of road
 - c. Control of the road is lacking for most of 4/1/09
3. **Altering behavior of the bears**
 - a. Vehicles driving by causing bear to go in the den
 - i. While head out of den
 - ii. While bear is completely out of den
 - iii. Stopping at den site while bears are out
 - b. At least 17 events (involving 19 vehicles) where bears interact and react to anthropogenic subjects.
 - i. An interaction is any event where the bears express a behavioral change or a bear and a vehicle are in the same frame (where reactions of the bear may be too subtle to view from the image).
 - ii. A reaction is defined as a change in behavior, such as head or body out of den and then head in den within one minute of a passing vehicle.
 - iii. Vehicles are included in event if they are traveling closely together (<1 minute apart). In addition to bear resuming behavior after vehicles pass.
 - c. At least Five (5) events where bears are out, but no apparent reaction is observed
 - i. 10.49
 - ii. 15.32
 - iii. 20.38

- d. At least Four (4) events where bear is completely out of den and retreats back into den
 - i. fast retreats
 - 1. 7.55
 - 2. 18.58
 - ii. slow retreats
 - 1. 10.58
 - 2. 15.35
- e. At least one (1) event where bear reacts to something off screen
 - i. 8.25
- f. At least seven (7) events where only bear's head is out of den and reacts to vehicles by retreating into den.
 - i. 7.44
 - ii. 8.27
 - iii. 8.34
 - iv. 9.58
 - v. 10.25
 - vi. 14.23
 - vii. 18.46
- g. Vehicle type during the 17 bear/human interactions (19 total vehicles)
 - i. 3 graders
 - ii. 3 semis
 - iii. 1 tanker
 - iv. 8 PUs
 - v. 4 box/cargo trucks

Types of Responses to Infractions which could be imposed

- 1. Violation of Stipulation – not adhering to approved stipulations of the LOA.
 - a. Speeding
 - b. Driving on road during closure.
- 2. Notice of Violation – interaction between humans and bears
 - a. Harassment of polar bears
 - i. Change in the behavior of the bear
 - 1. retreating by running, into den

Consequences of Infractions

- 1. No Further Action, but improvements in system
 - a. R7 can accomplish
 - b. Formal letter
 - c. Tell industry how it will occur next year
- 2. Violation of Stipulation
 - a. Formal letter

- b. Action required
- 3. Pulling current LOA on "responsible" party
 - a. R7 could accomplish
 - b. Never been done on my tenure
 - c. Potentially new ground and precedent-setting
 - d. Input from LE and SOL to proceed and ramifications
- 4. Proceed with formal NOV
 - a. Will involve LE, SOL and possibly DOJ
 - b. Criminal process – DOJ
 - c. Civil process - SOL

Detailed Description of the U.S. Fish and Wildlife Service Position Regarding the Polar Bear Harassment Event at Milepost 14.7, Badami Ice road, April 2009

Harassment of Denning Female Polar Bear

Events leading to the unauthorized take by harassment of a denning female polar bear and her 2 cubs are described below.

On Sunday March 29, 2009, Service received an email from Savant, regarding a potential den site at mile 14.7 of the ice road between Badami and Endicott. This den was located approximately 150 meters from the active roadway. Savant was directed to assume the den was occupied and only allow essential traffic to continue until confirmation of occupation at which time the road surrounding the den would close. The Service and the companies agreed the mitigation of traffic would be similar to established protocols from previously known polar bear dens along the ice road (located on Foggy Island). Road would remain open conditional on: 1) movement of only essential traffic, with no stopping at den and no use of airbrakes, 2) a vehicle speed of no greater than 15 mph by den, 3) the placement of 24-hr monitors at mile 14.7, and 4) the placement of checkpoints on either side, approximately 1 mile from den.

The Service worked in cooperation with BPXA, Exxon, and Savant to implement mitigation measures as quickly as possible. In order to confirm the occupation of the den, the Service allowed den emergence researchers to establish a camera at the den site on March 31, 2009. By March 31, 2009, a 15 mph speed limit signs had been posted approximately 0.5 miles either side of the den. At approximately 1415 on April 1, 2009, during a conference call between the Service, BPXA, Exxon, Savant, Industry first reported that the adult polar bear was observed at the den (the video clearly shows that she had emerged numerous times since the morning of April 1). At this time the Service closed the road until further notice. The cubs were first reported out of the den at approximately 2200 on April 1, 2009 (the video shows one cub was out of the den during the 0800 hour of April 1). At 2230 the female with two cubs-of-the-year abandoned the den and they did not return. The road remained closed until the morning of April 4, 2009, when it reopened.

On April 17, 2009, while reviewing video footage of the den site, Service biologists observed multiple infractions that did not correspond to the agreed upon mitigation measures for activities near the MP 14.7 polar bear den. Upon review of the video footage it was apparent that numerous violations of the LOA stipulations and bear/human interactions occurred prior to the first industry-reported sighting and eventual road closure by the Service. These interactions are violations to the LOAs of the companies. The types of infractions observed from the video on the Badami ice road on April 1, 2009 included:

1. **Speeding**; where at least 24 of 94 vehicles were classified as driving “fast,” large semi-trucks were driving proportionally faster than pick-up trucks, and Catco rolligons were all driving fast.
2. **Driving on the road during closure**; where limited “essential” traffic occurred at a higher proportion throughout the day, sometimes even with the bear visible and while mitigation measures went unheeded for most of 4/1/09 despite the presumed placement of a bear monitor and guard posts.
3. **Altering the behavior of the bears**; where in at least 17 events (involving 19 vehicles) the bears were on screen and interacted or reacted to anthropogenic stressors, such as vehicles passing and causing the female bear to seek refuge in the den. At least five (5) events occurred where the bears were out, but no apparent reaction was observed, at least four (4) events occurred where the female bear was completely out of den and retreated back into den, in at least one (1) event the bear reacted to something off screen, and in at least seven (7) events while the female bear was in the den with only her head out she reacted to vehicles by retreating into den. Vehicle types that were observed during the 17 bear/human interactions (19 total vehicles), included various types: 3 graders, 3 semis, 1 tanker, 8 PUs, and 4 box/cargo trucks.

Importance of Maternal Polar Bear Den Sites

Dens protect altricial cubs prior to emergence in the spring by providing shelter from weather, and insulative warmth against ambient conditions. Survival of pre-emergence neonatal cubs is dependent on shelter provided by the den and the care of the female. Den residence of the adult female from emergence to natural abandonment is important for preparing the cubs for their move onto the ice. Following den emergence, continued den residence is beneficial to cubs in that it provides environmental acclimatization, locomotor skills development, and allows for time to increase body weight and size.

Den sites can also play a role in acclimating the cubs to their “new” post-emergent environment prior to natural abandonment by the female. Polar bear families often remain at the den site for up to several weeks. During this time cubs continues rapid growth, learn to negotiate terrain, and acclimate to the arctic environment. Hence, premature abandonment prior to the natural movement from the den site to the pack ice may reduce the cubs’ survival on the ice as they may be too young and too weak to have acclimated, or not large enough in body weight to be physiologically able to survive the rigors of the Arctic environment.

To emphasize the importance of, and provide protection for denning polar bears and their habitat, the Service stipulates mitigation measures in their LOAs that directly respond to the necessary heightened awareness around denning bears. Stipulation 5 of their Service-issued LOAs required BPXA, Exxon, and Savant to limit industrial impacts to denning bears in the project areas due to the above-stated reasons. Stipulation 5 was designed to

limit the disturbance to any denning polar bears in the project areas. By accepting the incidental take authorization BPXA, Exxon, and Savant agreed to the terms of the authorization and the requirements. BPXA, Exxon, and Savant and its contractors, however, violated the terms of the Service's incidental take authorization by failing to follow these requirements - resulting in the unauthorized harassment of polar bears.

Stipulation 5 of the BPXA, Exxon, and Savant Incidental Take Authorization reads:

"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:

- COMPANY X must cooperate with the Service, and other designated Federal, State, or local agencies to monitor the impacts of oil and gas exploration activities on polar bears;
- COMPANY X 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 within 12 hours of discovery. Should occupied dens be identified within one mile of activities, work within a one-mile 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 COMPANY X must comply with any additional measures specified;
- COMPANY X 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;

BPXA, Exxon, and Savant failed to follow Bullet 2 of Stipulation 5 which resulted in unauthorized take by harassment of denning polar bears.

In addition, the Service requested that 24-hr den monitors, a reduction to essential traffic, and checkpoints were requested to be in place on March 31, 2009. Video from April 1, 2009 clearly shows the bear exiting and emerging from the den repeatedly during the morning prior to the first reported observation by industry on the afternoon of April 1 (approximately 1400). For example, at 0755 in the morning the adult female is near the road when she reacts to a Nabors PU driving faster than 15 mph. Even if the 24-hr monitors were not present to monitor this event and report it immediately to the Service to close the road, this event should have prompted enactment of the Polar Bear Action Level 2 protocols established in the polar bear interaction plans of Exxon (page 8 of 17 of

the Exxon polar bear interaction plan) and Savant (page 29 of the Savant polar bear interaction plan). Polar Bear Action Level 2 states that:

“Level 2 will become effective immediately upon the sighting of a polar bear. Level 2 response actions will include the following: temporary stoppage of work to inform all personnel, assessment of the situation by the site manager and Advisor, resumption of work with a minimum of two dedicated polar bear monitors.”

This did not happen.

Chronology of Events Concerning the Closure of the Ice Road from Badami to Endicott due to the presence of a Polar Bear Den at Mile 14.7.

Thomas Evans – April 19, 2009

These notes compiled on the 19th of April 2009 are based on my notes and conversations related to the discovery of the polar bear den at mile 14.7 and the events leading up to the implementation of mitigation measures by the USFWS concerning use of the ice road.

March 30, 2009 - Talked with Zane Henning, HSE, coordinator for Savant, concerning a potential den site at mile 14.7 of the ice road between Badami and Endicott. He described smaller tracks coming from the den spot and going up on the hills above the den site. There were also larger tracks going up to den and then back out on the ice, which were thought to perhaps made by a male bear. Photos were taken of the tracks thought to be a male but not of the smaller tracks because Zane didn't want to approach the potential den site. Between the time when the photos of the tracks were taken and today, a storm had come through and covered up the tracks and den site. I asked Zane how far the den site was from the ice road and he thought it was about 100m.

Prior to the report by Zane there had been several sightings of single bears in the area reported by Mike Barker, Savant, and Fairweather in the previous two weeks.

At this point it was still not known whether there was a den or a bear in the den. Several days had passed after the storm and since there was no evidence of fresh tracks, or a den opening it was assumed that if a bear had dug a shelter den it would have vacated the den during the good weather. Thinking that there was no bear in the den, the USFWS authorized BJ and Rusty, two employees working with Tom Smith on the den emergence program, to go check out the den taking all safety precautions. Zane Henning accompanied BJ and Rusty as they were digging out den. While they were digging out the main entrance a bear poked her head out of the den. Thus there was confirmation of an active polar bear den. At this time it was assumed that the bear seen was an adult female.

Eric Opstad (Savant) also contacted me and asked me what we normally do situations like this. I explained that we normally set up a one mile buffer exclusion zone until the female and cubs left the area. I indicated that this could be as short as a couple of days up to several weeks. Eric became irritated and said that this would cost his company millions of dollars. I explained that I would have to confer with my colleague Craig Perham but that he should prepare for a road closure.

March 31, 2009 – Had numerous calls with Mike Barker (Exxon), Phil Walsh (Exxon), Rob Dragnich (Exxon), Zane Henning (Savant), and Craig Perham (USFWS) concerning what to do now that we had a known den within approximately 100m of the ice road. Mike Barker was only available during the morning and early afternoon as he left for vacation later in the day. At this time USFWS decided to allow traffic to proceed along

the ice road with the following conditions. The thought was that this bear had tolerated road traffic for some time and thus she was accustomed to the traffic on the ice road. However, if a bear was sighted it was agreed that the road would be closed immediately. In addition it was decided to stop all non-essential traffic, set up check points at mile 13 and mile 16, and have a observer 24/7 at mile 14.7 (the location of the bear den), and to FLIR the den at night. For traffic going between the check points it was agreed that there would be no stopping, the speed limit would be 15 mph, no backup alarms or horns, or other noise other than normal operations and if a bear was sighted it was to be reported to the security officer at the check point. I think Phil coordinated a conference call with everyone including BP and Savant to go over these mitigation terms at 3 p.m.(I do not have good notes on this conference call)

In addition, BJ and Rusty set up a camera at the den site between 20:00 and 21:00 hours. I provided Diane with the den coordinates provided to me by Rusty on the March 30, 2009 so she could plot it on a map with the one mile buffer.

April 1, 2009 – Had numerous phone calls with everyone including Diane Sanzone with BP, Eric Opstad with Savant, Phil and Rob from Exxon, Craig Perham (USFWS), Security personnel, and the Den Emergence crew concerning status of the den. The FLIR images from the night of 31 March 2009 indicated that a bear was still in the den.

Craig, who was in the field at Red Dog mine doing polar bear captures, provided everyone with a copy of the mitigation measures for operations at the den site at mile 14.7 of the Badami/Endicott ice road. He had tried to send it the day before but only a few folks received then due to communication limitations at Red Dog mine.

A conference call between USFWS, BP, Exxon, Savant was scheduled for 14:00 hrs today. At about 14:15 hours during the conference call we received a report from the observer at mile 14.7 that the polar bear poked her head out of the den. At that point we (USFWS) closed the road until further notice. It was decided to reschedule the conference call to 16:00 hours to try to get Savant in on the call. The conference call was convened at 16:00 hrs and the terms of the closure were discussed. Terry DeBruyn, the polar bear project leader for the USFWS, was in meeting with our Regional Director and joined the conference call at about 16:30 hrs. The question came up with what to do with traffic that was already on the road that could not be turned around. I allowed two hours to get all traffic off the road and this was agreed to.

Eric Opstad raised concerns about needing a fuel truck, essential for his drilling operation, to move fuel from main storage tank to the drill site. We agreed that this would be ok given that they moved the fuel truck during the daylight hours and when no bears were visible and for them to notify us when this occurred. Diane sent messages to Ron and Denny requesting them to spread the word to the security checkpoints about the road closure around the den site.

The observer reports that a female with two cubs of the year leaves the area at about 22:30 hrs and apparently did not come back. The cubs of the year looked healthy and

were estimated to be about 25 lbs. The cubs had no trouble keeping up with mom, and easily climbed over the snow berm by the road..

April 2, 2009 – Diane calls in the morning and we indicated that the road is still closed. A conference call is convened at 16:30 hrs today Phil (Exxon), Rob (Exxon), Bruce (BP-Endicott), Diane (BP), Mark (BP) and Tom (USFWS) to update on status. After 22:30 hrs there was no further polar bear sightings and the FLIR images (time??) didn't indicate that a bear was in the den. Earlier in the day Phi/Rob asked if it would be ok if surveyors looked for a route south of the mile buffer and this was brought up again at the conference call. I indicated that this was a permitted activity. Questions came up as to when USFWS would open the road and I indicated that we would have to wait at least 48 hrs with no further polar bear activity but this period could be longer. Eric Opstad mentioned that he didn't think the female and cubs would return as she didn't look too happy in the photographs. At this point no one else on the conference call was aware of any photos of the female bear with cubs and there was some concern that this could be considered a take. (Is it dark at 10:30hrs??) I asked Diane to look into this for me and she said she would.

April 3 2009 - No further polar bear sightings were reported nor was there FLIR evidence indicating that a bear was in the den. Phil asked if the could do road maintenance at mile marker #9 and I gave them permission to do that. At some point I learned that they had closed the entire road not just the 3 mile section of the road by the den.

Steve Rogg (may have spelled last name wrong -Savant) called and wanted to know if they could move a 3000 gallon Service Fueller, 5000 gallon (water?) truck, and a 45' flatbed truck with drilling mud on the road. These were considered essential equipment and operations could not occur without them. I asked whether the fuel truck which we had given permission to earlier had gone through. He said that it had not so I assumed that the Service Fueller was the same vehicle which we had authorized on April 1, 2009. I explained that the female with cubs could come back to the den and that they should be prepared for a road closure up to two weeks. He indicated that this wouldn't be possible due to shortages of fuel, water, food supplies, etc. In addition he noted that road maintenance vehicles need to be permitted to clear the road. Outside the den exclusion zone, road maintenance I said this was permitted but were not permitted to work within the den exclusion area between mile 13 and mile 16. Since there had been no further polar bear activity I granted him a variance on April 3, 2009 at 14:04 hrs to move these three vehicles on Saturday April 4, 2009 during the daylight hours. I notified Exxon and BP by phone that I had permitted this variance for Savant so they could pass this message on to the security guards. I think Exxon had a guard on one end of the road and BP had a guard on the other end of the road. Steve also wanted to know if the road would be opened at 22:30 hrs on April 3, 2009 since the 48 hr period with no activity would have passed. I mentioned that I was thinking of going through the weekend and opening it on Monday. He said we were not abiding by the terms we put forth in the mitigation measures. So I compromised for potential opening on Sunday April 5, 2009.

About an hour later, I had 4 messages from Steve Rogg and Steve Opstad from Savant saying that they had arranged a conference call at 15:30 hours with everyone to push for opening the road sooner than Sunday April 5, 2009. It was fortunate that I was in the office and available to take this call on such a short notice. The conference call was convened with Mark DeVries (BP), Bruce Robinson (BP), Jeff (BP), Phil and Rob from Exxon, and Steve Rogg and Steve Opstad?? (Savant). I decided to give the bears another night to see if they returned to the den site since it was unusual for a female with cubs not to spend at least a few days with her cubs by the den site after den emergence. If there was no activity which was to be verified by the observer (i.e. no sightings or FLIR activity indicating the presence of polar bear(s)), I agreed to open the ice road at 0600 hrs on Saturday April 4, 2009. Everyone agreed to give the female with cubs another night free from disturbance in case they chose to return to the den.

April 4, 2009 - I came into work Saturday morning at 0600 hrs and waited for a call from Security indicating whether there had been any polar bear activity since the conference call Friday afternoon. I received a call, both at work and home, at about 0700 hrs from Security indicating that there had been no further polar bear sightings and the FLIR images did not indicate the presence of any polar bears at the den sight. I sent an E-Mail to Exxon, Savant, and BP at about 07:30 hrs indicating that I was authorizing opening the ice road from Endicott to Badami as of 0600 hrs Saturday April 4, 2009.

Chronology of Events Concerning the Closure of the Ice Road from Badami to Endicott due to the presence of a Polar Bear Den at Mile 14.7.

Craig Perham – May 6, 2009

These notes are based on my conversations related to the discovery of the polar bear den at mile 14.7 and the events leading up to the implementation of mitigation measures by the USFWS concerning use of the ice road. I was in the field (Red Dog Mine Port) at the time the incident took place.

Sunday March 29, 2009

Receive an email from Zane Henning, HSE coordinator for Savant, regarding a potential den site at mile 14.7 of the ice road between Badami and Endicott. I called him in the evening to discuss the den site. He related that between 0800 – 1100 a Purcell security employee saw fresh bear tracks at MP 14.7 between when he passed the area at 0800 (no tracks) and returned at 1100 (tracks near road). Based on this information, Zane checked out the site around 1200. From the road, ~100m from coastal bluff, he saw tracks by the road and more tracks near what appeared to be an open den ~100m away. He felt he was seeing 2 sets of tracks- a large set near the road going to the den and a smaller set near the den and up on the bluff. In addition, it looked like the den was torn up – dug out around the opening from the outside. His best guess on what he was seeing was a smaller bear, most likely the female, abandoned the den and a bigger bear, possibly a male, investigated den. Zane didn't move off the road and didn't get any closer to the den for safety reasons. He took photos of tracks.

The ambiguity of the tracks and the possibility that another bear was using the den led me to verify den occupancy prior to completely closing the road.

Told him:

- We needed to proceed cautiously;
- Have to assume den is occupied, but need to confirm;
- Mitigate traffic much like the Foggy island bear dens earlier in the season;
- Road will be open conditional on:
 - Only essential traffic,
 - 15 mph by den
 - 24 hr monitors,
 - checkpoints on either side, approx 1 mi from den.
- Will work to get mitigation measures in place and coordinate with Anchorage FWS office.
- Because I'm in the field I'll pass this on to Tom Evans.
- Will talk to the den emergence researchers (Rusty Robinson, BJ Kirschhoffer) to confirm den occupancy.
- Asked him the amount of Savant traffic on the road: 1 vehicle/hr, lighter traffic in the evening, 24/7