or reduced SPL shall be maintained until such time as the observed marine mammal(s) has been seen to have left the applicable exclusion zone or until 15 minutes have elapsed in the case of a pinniped or odontocete or 30 minutes in the case of a mysticete without resighting, whichever occurs sooner.

- (iv) The entire exclusion zones prescribed in $\S217.144(a)(2)(i)$ or (a)(2)(ii) must be visible during the entire 30-minute pre-activity monitoring time period in order for the activity to begin.
- (v) BP shall employ a ramp-up technique at the beginning of each day's inwater pile driving activities and if pile driving resumes after it has ceased for more than 1 hour.
- (A) If a vibratory driver is used, BP is required to initiate sound from vibratory hammers for 15 seconds at reduced energy followed by a 1-minute waiting period. The procedure shall be repeated two additional times before full energy may be achieved.
- (B) If a non-diesel impact hammer is used, BP is required to provide an initial set of strikes from the impact hammer at reduced energy, followed by a 1-minute waiting period, then two subsequent sets.
- (C) If a diesel impact hammer is used, BP is required to turn on the sound attenuation device for 15 seconds prior to initiating pile driving.
- (vi) New drilling into oil-bearing strata shall not take place during either open-water or spring-time broken ice conditions.
- (vii) All non-essential boats, barge, and air traffic will be scheduled to avoid periods when bowhead whales are migrating through the area where they may be affected by noise from these activities.
- (3) Helicopter flights to support Northstar activities must be limited to a corridor from Seal Island to the mainland, and, except when limited by weather or personnel safety, must maintain a minimum altitude of 1,000 ft (305 m), except during takeoff and landing.
- (4) Additional mitigation measures as contained in a Letter of Authorization issued under \S 216.106 and 217.148 of this chapter.
 - (b) [Reserved]

§ 217.145 Measures to ensure availability of species for subsistence uses.

When applying for a Letter of Authorization pursuant to §217.147 or a renewal of a Letter of Authorization pursuant to §217.149, BP must submit a Plan of Cooperation that identifies what measures have been taken and/or will be taken to minimize any adverse effects on the availability of marine mammal species or stocks for taking for subsistence uses. A plan shall include the following:

- (a) A statement that the applicant has notified and met with the affected subsistence communities to discuss proposed activities and to resolve potential conflicts regarding timing and methods of operation;
- (b) A description of what measures BP has taken and/or will take to ensure that the proposed activities will not interfere with subsistence whaling or sealing; and
- (c) What plans BP has to continue to meet with the affected communities to notify the communities of any changes in operation.

§217.146 Requirements for monitoring and reporting.

- (a) BP must notify the Alaska Regional Office, NMFS, within 48 hours of starting ice road construction, cessation of ice road usage, and the commencement of icebreaking activities for the Northstar facility.
- (b) BP must designate qualified, onsite individuals, approved in advance by NMFS, to conduct the mitigation, monitoring, and reporting activities specified in the Letter of Authorization issued under §§ 216.106 and 217.148 of this chapter.
- (c) Monitoring measures during the ice-covered season shall include, but are not limited to, the following:
- (1) After March 1, trained dogs must be used to detect seal lairs in previously undisturbed areas that may be potentially affected by on-ice construction activity, if any. Surveys for seal structures should be conducted to a minimum distance of 492 ft (150 m) from the outer edges of any disturbance.

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- (2) If ice road construction occurs after March 1, conduct a follow-up assessment in May of that year of the fate of all seal structures located during monitoring conducted under paragraph (c)(1) of this section near the physically disturbed areas.
- (3) BP shall conduct acoustic measurements to document sound levels, characteristics, and transmissions of airborne sounds with expected source levels of 90 dBA or greater created by on-ice activity at Northstar that have not been measured in previous years. In addition, BP shall conduct acoustic measurements to document sound levels, characteristics, and transmissions of airborne sounds for sources on Northstar Island with expected received levels at the water's edge that exceed 90 dBA that have not been measured in previous years.
- (d) Monitoring measures during the open-water season shall include, but are not limited to, the following:
- (1) Acoustic monitoring of the bowhead whale migration.
- (2) BP shall monitor the exclusion zones of activities capable of producing pulsed underwater sound with levels ≥180 or ≥190 dB re 1 µPa (rms) at locations where cetaceans or seals could be exposed. At least one on-island observer shall be stationed at a location providing an unobstructed view of the predicted exclusion zone. The observer(s) shall scan the exclusion zone continuously for marine mammals for 30 minutes prior to the operation of the sound source. Observations shall continue during all periods of operation and for 30 minutes after the cessation of the activity. The observer shall record the: species and numbers of marine mammals seen within the 180 or 190 dB zones; bearing and distance of the marine mammals from the observation point; and behavior of marine mammals and any indication of disturbance reactions to the monitored activity.
- (e) BP shall conduct any additional monitoring measures contained in a Letter of Authorization issued under §§ 216.106 and 217.148 of this chapter.
- (f) BP shall submit an annual report to NMFS within the time period specified in a Letter of Authorization issued

under \S 216.106 and 217.148 of this chapter.

- (g) If specific mitigation and monitoring are required for activities on the sea ice initiated after March 1 (requiring searches with dogs for lairs), during the operation of strong sound sources (requiring visual observations and shutdown procedures), or for the use of new sound sources that have not previously been measured, then a preliminary summary of the activity, method of monitoring, and preliminary results shall be submitted to NMFS within 90 days after the cessation of that activity. The complete description of methods, results, and discussion shall be submitted as part of the annual report described in paragraph (f) of this sec-
- (h) BP shall submit a draft comprehensive report to NMFS, Office of Protected Resources, and NMFS, Alaska Regional Office (specific contact information to be provided in Letter of Authorization), no later than 240 days prior to the expiration of the regulations in this subpart. This comprehensive technical report shall provide full documentation of methods, results, and interpretation of all monitoring during the first four and a quarter years of the LOA. Before acceptance by NMFS as a final comprehensive report, the draft comprehensive report shall be subject to review and modification by NMFS scientists.
- (i)(1) In the unanticipated event that Northstar operations clearly causes the death of more than five ringed seals annually or the take of a marine mammal in a manner prohibited by this final rule, such as an injury (Level A harassment), serious injury or mortality (e.g., ship-strike, gear interaction), BP shall immediately take steps to cease the operations that caused the unauthorized take and report the incident as soon as practicable and no later than 24 hours after the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, or his designee, the Alaska Regional Office, and the Alaska Regional Stranding Coordinators (specific contact information to be provided in Letter of Authorization). The report must include the following information:

- (i) Time, date, and location (latitude/longitude) of the incident;
- (ii) The type of equipment involved in the incident:
 - (iii) Description of the incident;
 - (iv) Water depth, if relevant;
- (v) Environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, and visibility);
- (vi) Species identification or description of the animal(s) involved;
 - (vii) The fate of the animal(s); and
- (viii) Photographs or video footage of the animal (if equipment is available).
- (2) Activities shall not resume until NMFS is able to review the circumstances causing the exceedance of the authorized take. NMFS will work with BP to identify additional measures to minimize the likelihood that more than five ringed seals will not be killed each year (or other marine mammal species that may have been injured, seriously injured, or killed) from BP's activities. BP may not resume their activities until notified by NMFS via letter, email, or telephone.
- (3) In the event that BP discovers an injured or dead marine mammal, and it is determined that the cause of the injury or death is unknown and the death is relatively recent (i.e., in less than a moderate state of decomposition as described in the next paragraph), BP will report the incident/discovery as soon as practicable and no later than 24 hours after the incident/discovery to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, by phone or email, the Alaska Regional Office, and the NMFS Alaska Stranding Hotline and/or by email to the Alaska Regional Stranding Coordinators (specific contact information to be provided in Letter of Authorization). The report must include the same information identified in §217.146(i)(1). Activities may continue while NMFS reviews the circumstances of the incident. NMFS will work with BP to determine whether modifications in the activities are ap-
- (4) In the event that BP discovers an injured or dead marine mammal, and it is determined that the injury or death is not associated with or related to the activities authorized in this final rule (e.g., previously wounded animal, car-

cass with moderate to advanced decomposition, or scavenger damage), BP shall report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, by phone or email and the NMFS Alaska Stranding Hotline and/or by email to the Alaska Regional Stranding Coordinators (specific contact information to be provided in Letter of Authorization), as soon as practicable and no later than 24 hours after the discovery. BP shall provide photographs or video footage (if available) or other documentation of the stranded animal sighting to NMFS and the Marine Mammal Stranding Network. Activities may continue while NMFS reviews the circumstances of the incident.

§ 217.147 Applications for Letters of Authorization.

- (a) To incidentally take marine mammals pursuant to these regulations, the U.S. Citizen (as defined by §216.103 of this chapter) conducting the activity identified in §217.140(a) (i.e., BP) must apply for and obtain either an initial Letter of Authorization in accordance with §217.148 or a renewal under §217.149.
 - (b) [Reserved]

§217.148 Letters of Authorization.

- (a) A Letter of Authorization, unless suspended or revoked, shall be valid for a period of time not to exceed the period of validity of this subpart.
- (b) The Letter of Authorization shall set forth:
- (1) Permissible methods of incidental taking:
- (2) Means of effecting the least practicable adverse impact on the species, its habitat, and on the availability of the species for subsistence uses (*i.e.*, mitigation); and
- (3) Requirements for mitigation, monitoring and reporting.
- (c) Issuance and renewal of the Letter of Authorization shall be based on a determination that the total number of marine mammals taken by the activity as a whole will have no more than a negligible impact on the affected species or stock of marine mammal(s) and will not have an unmitigable adverse impact on the availability of species or