

## Reissuance of NPDES permit no. AK-004978-6

### Westward Seafoods' Captains Bay on-shore facility, Unalaska, Alaska

#### Response to Public Comments and Government Conditions

EPA provides the following responses to public comments on the reissuance of NPDES permit no. AK-004978-6 to Westwards Seafoods, Inc., for its Captains Bay on-shore seafood processing facility in Unalaska, Alaska. In addition, EPA responds to requests for changes to the draft permit by the State of Alaska in its § 401 certification of the permit and its consistency determination for the Coastal Zone Management Act and by the National Marine Fisheries Service and the Fish and Wildlife Service in their conservation reviews accorded by the Endangered Species Act, the Marine Mammal Conservation Act, and the Fishery Conservation and Management Act.

**Comment:** Westward Seafoods has made very substantial investments in wastewater management practices, treatments and alternatives to discharge, including tendering of biochemical oxygen demand (BOD)-rich wastewater for at-sea discharge. Monitoring, sampling and characterization studies of the receiving waters have demonstrated consistent compliance with the Alaska water quality standards to date. The NPDES process has worked. In view of the high quality of Captains Bay and the apparent capacity for additional wasteload capacity, Westward requests a re-evaluation of the WASP model in consultation with EPA in the determination of appropriate limits on discharges of five-day biochemical oxygen demand (BOD5).

**Response:** EPA agrees that the permittee's numerous ambient water quality studies demonstrate that the permit limits and other conditions have protected Alaska Water Quality Standards and the environmental quality of the receiving waters of Captains Bay. EPA therefore worked with Westward Seafoods and its consultants, CH2M-Hill and gdc, in reviewing and reassessing the assumptions, formulation and inputs of EPA's 1993 WASP model of Captains Bay.

After a substantial amount of additional analysis, modeling, and review, EPA agreed that the assumption pertaining to the wasteload of BOD5 discharged during 1992 (the year of water quality violations that caused EPA to modify the 1991 NPDES permit and impose limits of the discharge of BOD5) under-assessed Westward's actual effluent discharge of BOD5. EPA's 1993 analysis treated the stickwater as a separate component that did not rise to the stratified surface layer and was not included in the wasteload that affected the upper water column. EPA agreed with the Westward technical team that the discharge of the stickwater component of the meal plant commingled with the larger volume of wastewater passing through the solids recovery screens in the wastewater sumps and outfall line to be discharged as a thoroughly

mixed effluent which would rise and affect the water column above the outfall. The current re-assessment incorporated an increase in the original BOD5 wasteload and a concomitant increase in the capacity of Captains Bay to receive a BOD5 discharge without experiencing a violation of the Alaska Water Quality Standard for D.O. As a consequence, the 2000 version of EPA's WASP model of Captains Bay determined a wasteload of BOD5 that is higher than the 1993 analysis.

Westward's consultants (Costa and Wilson, 4/11/00, 3/6/00, and 10/25/99) developed a series of WASP simulations designed to test and refine a number of coefficients characterizing Captains Bay. The Westward team focused upon the vertical diffusion coefficient ( $K_v$ ) and the deoxygenation coefficient ( $K_{DC}$ ), and developed six alternate coefficient pairs that produced model results comparable to the minimum levels of D.O. measured by the permittee in Captains Bay on 8/22/92 and 9/7/92. Costa and Wilson (4/11/00) provided the following information in their Table 3 - "Summary of Calibration Results" and Table 5 - "Summary of Model Results," to which are added the average of the actual minima D.O. measurements of the water quality monitoring in Captains Bay on 8/22/92 and 9/7/92.

Summary of Calibration and Modeling Results							
Case	$K_v$	$K_{DC}$	Actual DO <sub>cell 76</sub>	Simulated DO <sub>cell 76</sub>	Actual DO <sub>cell 26</sub>	Simulated DO <sub>cell 26</sub>	Loading BOD-20 day
1	0.00001	0.0036	3.1	3.1	6.8	8.76	90,500
<b>2</b>	<b>0.00005</b>	<b>0.0122</b>	<b>3.1</b>	<b>3.1</b>	<b>6.8</b>	<b>6.64</b>	<b>120,233</b>
3	0.00010	0.0220	3.1	3.1	6.8	5.55	122,159
4	0.00100	0.2585	3.1	3.1	6.8	4.00	115,949
5	0.00200	0.5672	3.1	3.1	6.8	3.78	113,461
6	0.01000	4.0320	3.1	3.1	6.8	3.05	111,200

EPA selected calibration case #2 as most closely simulating the measurements in both WASP cells #76 and #26 on 8/22/92 and 9/7/92. This specific simulation model was subsequently run to evaluate the threshold wasteload which would reduce D.O. levels to the 5 mg/L criteria of the Alaska Water Quality Standards for both estuarine waters and coastal marine waters (seafood processing water supply): 120,233 pounds of BOD20 (91,781 lbs BOD5 = 120,233 lbs BOD20 / 1.31 BOD20: BOD5). EPA then imposed a 10% margin of safety and re-defined an interim wasteload allocation of 83,603 lbs BOD5. Using a spreadsheet for developing permit limits based upon wasteload allocations, EPA determined that the **average monthly limit should be 83,028 lbs BOD5** and the **maximum daily limit should be 126,825 lbs BOD5**. This

determination is based upon the coefficient of variation (CV) of 0.26 for the variability in the BOD5 concentrations of the permitted discharge that was described in the 1993 fact sheet, an effluent monitoring frequency of nine samples per month (2/week for a 31-day month), and EPA's standard probability percentiles for long-term average, average monthly limit, and maximum daily limit (EPA's Technical Support Document for Water Quality-Based Toxics Control, March 1991, EPA/505/2-90-001).

EPA has *revised the permit at Part I.A.2* to limit discharges of five-day biochemical oxygen demand (BOD5) to an average monthly limit of 83,028 lbs/day and a maximum daily limit of 126,825 lbs/day. These new limits are interim limits for the duration of this permit and will be reduced to the previous 1993 limits of 58,000 lbs/day and 90,000 lbs/day through permit modification if the ambient water quality monitoring indicates a significant decline in water quality and a violation of the Alaska Water Quality Standard for D.O. due to Westward Seafoods' permitted discharge.

EPA notes that two issues of concern may exist which warrant further consideration. The first issue is naturally occurring diurnal variation in dissolved oxygen concentrations in the water column. Typically lower concentrations of D.O. occur during the early morning hours before dawn when marine plants do not produce oxygen (as compared to daylight hours when plant photosynthesis produces oxygen). Monitoring of pre-dawn concentrations of D.O. might well unveil lower concentrations than those measured during a preceding afternoon's monitoring. Admittedly and unfortunately, historical data on D.O. levels during the night and early morning does not exist. EPA may issue a request to the permittee for additional monitoring of D.O. in the pre-dawn period during the summer fishery of 2002 to investigate the potential for diurnal decreases in D.O. and attendant violations of Alaska Water Quality Standards under the authority of section 308 of the Clean Water Act.

The second issue of concern involves the "trapping" and isolation of the water column in Captains Bay that is below the 80 ft depth of the sill across the mouth of the bay. Dissolved oxygen concentrations at depths below the sill are characteristically reduced from surface water concentrations as the oxygenation of this layer of water depends largely upon seasonal turn-overs of the water column. The permit requires, at Part IV.C.1.b, that the permittee monitor D.O. down to a depth approximately one meter above the seafloor. Monitoring of D.O. in the water column has revealed concentrations of 14 mg/L, 14 mg/L, 10 mg/L, and 6 mg/L at depths of 1 m, 8 m, 30 m and 100 m respectively in mid-July and of 12 mg/L, 12 mg/L, 7 mg/L, and less than 4 mg/L respectively in late August. The cause of the decline in D.O. concentrations throughout the summer and with increasing depths is not well-understood. EPA may issue a request to the permittee for a technical consideration and assessment of the potential effects of seafood processing waste discharges on D.O. levels in the water

column below -100 ft in the bay under the authority of section 308 of the Clean Water Act.

**Comment:** Westward Seafoods comments that Captains Bay should be characterized as a marine waterbody with an Alaska Water Quality Standard (AWQS) of 4 mg/L of D.O. rather than an estuarine waterbody with an AWQS of 5 mg DO/L. The potential permit limits supporting a marine water are roughly 31% greater than those supporting an estuarine receiving water. Westward Seafoods appealed the classification of Captains Bay as an estuary to the Alaska Department of Environmental Conservation (ADEC), contending that the waterbody should be classified as coastal marine and that the estuarine designation should be limited to the areas around certain stream mouths in the bay. ADEC rejected the permittee's appeal and maintained the estuarine designation.

**Response:** EPA absolutely supports ADEC's designation of Captains Bay as an estuary (Yearsley and Hill, April 7, 2000). In addition, AWQS provide that dissolved oxygen "must be greater than or equal to 5 mg/L" for the beneficial use of water supply for seafood processing in all marine waters. No change has been made to the permit in response to this comment by Westward Seafoods. However, EPA has *revised the permit at Part IV.C* to provide the complete water quality standard for dissolved oxygen in an estuary (5 mg/L DO except where natural conditions cause this value to be depressed) and to incorporate the marine water quality standard.

**Comment:** Westward Seafoods comments that the draft permit contains references to limits both 1 mm and ½ inch on the particle size of solid seafood processing waste residues discharged on-site (versus at-sea). Westward notes that its facility effectively screens fish wastes to less than 1 mm width but suggests that a small fraction of the discharged particles may have lengths of up to 2.5 mm. The permittee proposes that the permit be revised to incorporate 1 mm screening size or 1 mm width as the effective permit limit, allowing for the rectangular design of the apertures found its waste recovery treatment screens (typical for this type treatment throughout the seafood industry as well as other solids recovery applications).

**Response:** EPA acknowledges the reality of the rectangular treatment screen design at the facility and its implications for discharge particle sizes. EPA has *revised the permit at Part I.A. 1* to provide for a limit of the width of the particles.

The reality of screening technology is that finer screens retain finer particles and larger quantities of effluent solids. Finer screens also generate greater back-pressure in the wastewater being treated and require greater surface areas of screens for the treatment of a given quantity of wastewater during a given time period. Better

treatment is available when more money is invested in treatment technology. As treatment is extended to finer mesh-size, marginal recovery rates decrease. Westward Seafoods constructed a by-product recovery treatment system that screens finfish wastes using a mesh that measures one by ten millimeters; Westward Seafoods grinds-and-discharges its crab waste residues rather than screen and reduce these wastes to meal. Both Unisea and Trident Seafoods screen both finfish and crab residues to widths of 0.5 mm and reduce these by-products to meal. The technology-based treatment standard for the continental United States is less than 0.4 mm. Westward Seafoods can improve water quality in Captains Bay by reducing its effective screen treatment of its effluent.

**Comment:** Westward Seafoods comments that an error was made in limiting the annual load of settleable solid residues and requests that EPA revisit the derivation of these limits. Westward believes, in particular, that the discharges of effluents of different particle sizes form independent deposits that should be reflected as independent limits on settleable solids rather than as the overly conservative interdependent limits.

**Response:** EPA has reconsidered the assumption of interdependent additive effects in the discharge of particles of 1 mm and 0.5 inch widths and found this assumption to be overly conservative. In view of the behavior of these grossly different solids in the water column, EPA agrees that it is reasonable that the discharge and deposition of one particle size is unlikely to significantly influence the discharge and deposition of the other and that their limits are independently additive rather than interdependently additive. EPA has *revised the permit at Part I.A.3* to reflect independent limits on the amount of settleable solid residue discharges of 1 mm width and 0.5 inch width.

Additionally, EPA has not modeled the settlement of solid residues of 0.5 mm width or smaller. EPA believes that these particles will disperse widely throughout Captains Bay and will not contribute significantly to deposition around the outfall. EPA does not propose a limit to the discharge of seafood processing wastes that are either screened to 0.5 mm width or smaller or that are assessed in a technically sound method as having a width of 0.5 mm width or less. EPA again notes that screening with 40-mesh screen to an effective residue width of 0.4 mm or smaller is standard treatment technology in the coastal seafood processors of the lower 48 states. EPA has *revised the permit at Part I.A.3* to clarify that there is no limit on seafood processing wastes that are either screened to 0.5 mm width or definitively assessed as having a width of 0.5 mm width or less.

EPA, after consultation with ADEC, has established limits predicated on the modeling of the one acre zone for deposition that is standard for the Alaskan seafood processing

industry. In consideration of the steep slope adjacent to the discharge on Bailey's Ledge, ADEC has authorized a two-acre zone of deposit. The table at Part I.A.3 reflects this determination.

**Comment:** Westward Seafoods comments that approximately one million gallons per day (MGD) of non-process, non-contact wastewater from its condensers and air scrubbers are commingled currently with its seafood processing wastewater prior to discharge into Captains Bay. Westward Seafoods requests that this wastewater be authorized for discharge along with other non-contact waters through an outfall at the facility dock as Discharge 002.

**Response:** EPA understands that the facility's five million gallons per day ( $\approx$  8 cfs) of non-contact wastewater is characterized by lower salinity and higher temperatures than the receiving water. This discharge is not expected to affect the water quality below several feet depth or beyond several hundred feet down-current from the point of discharge. EPA has *revised the permit at Part I.B* to provide for the discharge of non-contact wastewater as Discharge 002. In accordance with ADEC's 401 certification of the permit, EPA has *revised the permit at Part I.B* to limit the temperature of the discharge of non-contact wastewater as Discharge 002 to a maximum of 20°C. Monitoring has been required for an initial period of evaluation and a condition for the re-initiation of monitoring has been provided.

**Comment:** Westward Seafoods requests that the submittal of reports be changed from January to February.

**Response:** EPA understands that additional time for the preparation of year-end reports is valuable and has *revised the permit at Parts I.B, I.D.3, III.D, IV.A.7, IV.B.5, IV.C.4, IV.D, and VI.B* to provide for a submittal date of February 14<sup>th</sup>.

**Comment:** Westward Seafoods comments that the at-sea discharge zone and surrounding area is used by at least three processors as well as numerous fishing vessels which are discharging similar wastewater and solids. Westward questions how a permit requirement to monitor and record the numbers of marine bird and mammals in the designated discharge zone can be reliably tied to its at-sea discharges in the constant presence of other known high-level "attractors" of similar or identical nature. The permittee does not wish to be burdened with an expensive and highly questionable study that does not appear to address any issue of permit compliance.

**Response:** EPA included this condition in the draft permit in accordance with 1999 discussions with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service. Prompted by the concerns expressed by Westward Seafoods, EPA and the

services re-evaluated the requirement and determined that the reports developed during at-sea discharges would be unreliable. EPA has *revised the permit at Part I.C* to eliminate the at-sea survey of marine birds and mammals.

**Comment:** Westward Seafoods requests that it be permitted to discharge non-contact cooling water to the sea surface in order to avoid the replacement of existing pumps and pipes.

**Response:** EPA concurs that this discharge can be made to as well beneath the sea surface and has *revised the permit at Part I.E.4.b* to provide that Discharge 002 may be discharged at mean lower low water or deeper.

**Comment:** Westward Seafoods comments that the a 30-day period for the completion and certification of a best management practices (BMP) plan is insufficient and requests that the submittal date of certification be extended to one year from the effective date of the permit.

**Response:** EPA understands that the permittee currently has and operates in accordance with a BMP plan. Additionally, the permittee has been aware of this specific pending requirement since the public notice of this permit on September 30, 1999. EPA has not revised the permit condition for completion and certification of a BMP plan for the facility. EPA reminds the Westward Seafoods that it can use facsimile transmittal to ensure a timely submittal of its certification of completion of its BMP plan. No change has been made to the permit in response to this comment.

**Comment:** Westward Seafoods comments that effluent monitoring should focus upon the summer months of concern during which the water column is stratified and the processing discharges are high. A reduction in winter monitoring is appropriate.

**Response:** EPA agrees that the monitoring of effluent discharges can be reduced to one winter month and the months of June through October and has *revised the permit at Part I.D* accordingly.

**Comment:** Westward Seafoods requests that the effluent monitoring provide for the option to use grab or composite sampling for BOD5, TSS and settleable solids.

**Response:** EPA agrees that either grab and composite samples serve to protect water quality in Captains Bay and has *revised the permit at Part I.D* accordingly. The effluent is a thoroughly mixed waste stream produced by production lines whose temporal variability is characteristically days rather than hours.

**Comment:** Westward Seafoods comments that the draft permit reduces the monitoring of effluent parameters to a portion of the year yet retains some confusing references to year-round sampling. The permittee requests that EPA revise the permit to achieve consistency and clarity throughout its presentation of the monitoring requirements and to reduce monitoring frequency. Westward Seafoods requests that EPA clarify that the annual report requirements apply to “monitored months” rather than all months of the year.

**Response:** EPA recognizes the confusion and is prepared to clarify permit conditions whenever necessary. EPA has *revised the permit at Parts I.D and III.B.3* to clarify that the production data is reported on a monthly and annual basis and that effluent data is reported for monitored months of discharge, specifically during periods of operation and discharge in February, June, July, August, September and October.

**Comment:** Westward Seafoods comments that the permit requires diver surveys at depths which are unsafe and in an area of the bay where vessel traffic presents a significant hazard. Westward proposes that side-scan sonar is an acceptable means for determining the compliance of its waste pile with its two acre zone of deposit.

**Response:** EPA is concerned that monitoring accurately measures the area and thickness of waste deposition on the seafloor that is greater than one-half inch thickness, as this level of accumulation produces anoxic conditions in the sediment. EPA divers have found that waste depositions can generally be detected at a thickness of one-half inch or greater on certain substrates, and can be easily detected at a thickness of three inches on all substrates. EPA and ADEC are also interested in monitoring the character of the waste deposit. EPA has *revised the permit at Part IV.A* to clarify the objectives of the seafloor monitoring.

EPA invites the permittee to submit data demonstrating that side-scan sonar provides accurate information on the area and thickness of its waste deposit with a precision of at least three inch thickness. EPA suggests that this demonstration should include a comparison of the seafloor surveys conducted by the permittee to date.

EPA is concerned that seafloor monitoring is conducted in accordance with the regulations of the Occupational Safety and Health Act (OSHA). EPA has *revised the permit at Part IV.A.4* to incorporate an explicit reference to the OSHA regulations.

**Comment:** Westward Seafoods comments that the monitoring requirement to identify fish and other marine life in the vicinity of the waste pile is irrelevant to determining compliance with the two acre zone of deposit. Neither diver observations nor trawl

surveys could provide an accurate representation of the abundance of fish, invertebrates and kelp.

**Response:** EPA agrees that the monitoring of fish within the water column is speculative. Monitoring of large demersal fish and benthic marine invertebrates, however, provides useful information on the occurrence of marine life on and around the waste deposit. In some cases such observations actually document the abundance of marine life found in the enriched zone around the deposition area, providing data that supports the argument that marine life lost under the waste pile may be balanced by compensatory increases in population around the organic deposit. EPA has *revised the permit at Part IV.A.2.d* to simplify the requirement for the identification of marine life during the seafloor survey.

**Comment:** Westward Seafoods requests that the schedule for seafloor surveys be changed from yearly to the second and fourth years of the permit term as is required of other facilities in Unalaska.

**Response:** Westward Seafoods is misinformed about the schedule of seafloor surveys conducted by other seafood processors of its size class and nature. Biennial surveys may be required of permittees with large waste piles which screen all on-site discharges of processing wastes and thus no longer discharge one-half inch ground wastes (e.g., Unisea and Alyeska Seafoods). Annual surveys are required of facilities that discharge large volumes of ground wastes which contribute to large waste piles. Since Westward Seafoods discharges ground crab waste annually and these discharges result in a waste deposit which exceeds one acre and, according to diver observations (which detect thinner deposits than the sidescan sonar favored by the permittee) approaches or exceeds two acres, annual seafloor surveys are appropriate for this permit. No change has been made to the permit in response to this comment.

EPA notes that the seafloor survey is intended to determine the persistent deposit of offal wastes and that this objective requires a regularity in seafloor surveys that controls for the seasonality of the offal discharges. Since Westward Seafoods grinds and discharges crab wastes, the largest volume of settleable solid residues is discharged during the facility's winter crab processing season. EPA has *revised the permit at Part IV.A.3* to require that the schedule of the seafloor survey be coordinated with the seasonal crab fisheries.

**Comment:** Westward Seafoods requests that the requirement for observation of the sea surface for floating residues within a 100 yard radius of its outfall be removed from the permit, as it is not feasible to observe the sea surface with any accuracy in an area 450 yards offshore (more than 1/4 mile) from the facility and its docks.

**Response:** EPA believes that Westward Seafoods has offices in its upper floors from which reasonably accurate observations can be made of the discharge area with the use of field glasses of high magnification mounted on a tripod. Such an observation station supports both the visual inspection of floating residues limited by the permit in support of Alaska Water Quality Standards and the observation of the discharge area for its effect on wildlife, especially Steller's eiders and Steller sea lions. No change has been made to the permit in response to this comment.

**EPA'S RESPONSES TO  
THE REASONABLE AND PRUDENT MEASURES, TERMS AND CONDITIONS REQUESTED BY  
THE UNITED STATES FISH AND WILDLIFE SERVICE AS PART OF  
EPA'S CONSULTATION UNDER THE ENDANGERED SPECIES ACT  
ARE PROVIDED AS FOLLOWS:**

**Preliminary Note:** EPA has initiated consultation on this permit but has not completed consultation. EPA has informed the U.S. Fish and Wildlife Service (USFWS) in writing that it is reissuing this permit prior to completion of consultation, but that it will reopen the permit if doing so is appropriate in light of the results of the consultation. EPA presently believes that it will not be necessary to reopen the permit because of the similarity between this permit and the General Permit recently issued covering smaller seafood processing facilities in Alaska. EPA expects the outcome of the consultation on this permit to be similar if not identical to the outcome of the General Permit consultation. That is, EPA expects that the USFWS will find a potential for adverse effects to the Steller's eider and would proscribe certain reasonable and prudent measures, and conditions implementing those reasonable and prudent measures, as part of its Biological Opinion. The Biological Opinion for the General Permit is incorporated by reference into the administrative record for the Westward permit.

EPA, as the action agency, has an obligation to comply with the ESA, and to use its CWA authorities to meet the goals and requirements of the ESA. With that obligation in mind, and with a view to the importance of issuing this administratively-extended permit earlier rather than later, EPA is incorporating the conditions it expects will result from the consultation on this permit. Some conditions which EPA believed were not appropriate as applied to the General Permit are appropriate in the context of an individual permit, particularly where, as in the case for the Westward facility, a substantial population of eiders is known to overwinter in the vicinity of the facility.

The following discusses terms and conditions described in the Biological Opinion for the seafood processors General Permit. For the sake of simplicity, the discussion is written as if the requests for action made by FWS in the context of the General Permit are being made for this permit as well.

**Measure:** FWS requests that the permit prohibit a seafood processor from conducting fueling operations within four nautical miles of locations that are documented to have been used by 1,000 or more Steller's eiders, as indicated by surveys conducted since 1990 or subsequent to the issuance of the Service's biological opinion.

**Response:** EPA maintains its assessment that the discharges of seafood processing wastes are not detectable at a distance of one nautical mile or more from the point of

discharge. EPA will continue to use one nautical mile as the maximum impact zone of a seafood processing discharge authorized under an NPDES permit until data is developed which demonstrates otherwise.

A distance of four nautical miles is FWS' hypothetical impact zone for oil spills by vessels located at a seafood processing location. EPA asked members of Alaska's and NOAA's oil spill staffs to estimate the impact zone for a hypothetical spill of 150 gallons of diesel fuel into typical spring conditions using NOAA's ADIOS 2 (Automated Data Inquiry for Oil Spills) model [<http://response.restoration.noaa.gov/software/adios/getadios.html>]. Two separate modeling evaluations indicated that a diesel spill of this volume would have an impact zone of hundreds of yards rather than of miles. FWS has not adequately explained the basis for its proposed 4-mile limit, nor has it provided modeling results consistent with the guidelines for predicting spills in Alaskan coastal waters. FWS has not obtained an independent modeling analysis of the impact zone of its hypothetical spill from the oil spill experts at NOAA. EPA speculates that the discrepancy between FWS's estimate of an impact zone associated with an oil spill and the estimate developed with the ADIOS model may be the result of the different sets of assumptions used by and the experience of those who developed the estimates.

EPA notes that the discharge of petroleum is prohibited by federal statute. Oil spills and illegal discharges (e.g., bilge pumping) by ships are regulated by the U.S. Coast Guard and are not under the governance of this permit or EPA. Nonetheless, EPA has provided for an explicit prohibition of discharges of petroleum by permitted facilities *in the permit at Part I.E.5* and a best management practice requiring evaluation of refueling areas for containment *in the permit at Part II.A.3.a*. EPA has also included additional conditions *in the permit at Attachment A: Table of Conditions Required pursuant to Selected Other Authorities*.

EPA maintains that the scope of reasonable and prudent measures that are appropriately addressed in the permit is determined in relation to effects of the authorized discharges which EPA regulates through the NPDES permit program rather than by illegal actions regulated under authorities other than the Clean Water Act and by government agencies other than EPA. To the extent that entities other than EPA choose to follow reasonable and prudent measures as a way of guarding against liability for "take" under the ESA, they may do so independently of what is required in the permit.

**Measure:** FWS requests that EPA ensure that permittees which dispense fuel have present automatic back pressure shutoff nozzles as required by 33 CFR 154.500. EPA

shall provide the Service with written assurance that the permittee is in compliance with this regulation.

**Response:** As the regulation cited by FWS is not directly enforceable by EPA, EPA has chosen to include it in *Attachment A to the permit*, entitled “Table of Conditions pursuant to Selected Other Authorities.” This should increase the permittee’s awareness of its potential liability under this regulation. EPA has conferred with David Boisseau, Environmental Manager for Westward Seafoods’ facility in Unalaska, Alaska, and determined that the facility uses automatic shutoff nozzles in its on-site refueling of vessels.

**Measure:** FWS requests that EPA shall prepare an annual summary report of petroleum releases by the permittee under this permit and submit this to FWS. The report shall include information on the number of birds within one mile of the spill zone and other information.

**Response:** Normally, EPA does not collect information on petroleum releases in coastal waters. To do so would require a significant restructuring of EPA’s information-gathering activities in Alaska. However, in the context of this individual permit, EPA believes it is reasonable and protective of the Stellar’s eider to require Westward Seafoods to report observed petroleum spills. EPA has therefore incorporated this measure into the permit and *revised the permit at Part IV. D “Annual Petroleum Spill Summary Report.”* EPA believes FWS should continue to look to agencies and offices currently committed to tracking petroleum releases in Alaskan waters for their spill reports. Reports made by Westward Seafoods pursuant to this requirement in the permit may serve as an additional source of information.

**Measure:** FWS requests that EPA require the permittee to report to FWS all dead, injured, or contaminated Steller’s eiders resulting from petroleum releases by the permittee or vessels while such vessels are engaged in fueling activities in association with the permittee. Dead, injured, and contaminated eiders shall be handled according to the dead and injured eider protocol. Costs of rehabilitation of injured and contaminated eiders shall be borne by the permittee.

**Response:** The permit will require reporting of all observances of dead, injured, or contaminated Steller’s eiders, regardless of the cause. *EPA has revised the permit at Part III.B.4 and Attachment A.* In its outreach efforts described in the next response below, EPA will inform the permittee of the protocol for handing dead, injured, and contaminated eiders. It is in the permittee’s interest to rehabilitate Steller’s eiders that are injured or contaminated at its facility so as to avoid liability for the taking of an ESA-listed species.

**Measure:** FWS requests that EPA conduct outreach efforts that encourage permitted seafood processors to report to the Service all observations of dead, injured or contaminated Steller's eiders.

**Response:** EPA will prepare and distribute an outreach newsletter to seafood processing permittees which informs them of issues pertaining to ESA-listed species of the Alaskan coastal zones and which encourages reporting observations of dead, injured or contaminated species to FWS and NMFS. As above, the permit will require reporting of all observances of dead, injured, or contaminated Steller's eiders, regardless of the cause. *EPA has revised the permit at Part III.B.4 and Attachment A.* EPA looks to FWS and the National Marine Fisheries Service (NMFS) for their collaboration and support in the development and dissemination of information protective of ESA-listed species.

**Measure:** FWS requests that EPA develop a database of Steller's eider sightings for the seafood processing discharge under this permit.

**Response:** EPA realizes that our national understanding of the distribution of Steller's eiders and other ESA-listed species is limited, and with this our ability to protect and preserve ESA-listed species is also limited. EPA finds it reasonable to require the permittee to monitor the numbers of Steller's eiders and other ESA-listed species within its sea surface monitoring program. *EPA has addressed this measure in the permit at Part IV.B.2.a(3) and IV.B.2.c.* In addition, *EPA has revised the permit at Parts IV.A.6, IV.B.5 and IV.C.4* in order to ensure that the permittee will provide an abstract or executive summary that supports the provision of annual summary reports to the Service and other interested parties.

**Measure:** FWS requests that EPA provide FWS with an annual summary report of all dive surveys conducted in association with this permit. The report will indicate where the dive occurred, the facility at which the dive is targeted, and the results of the dive. Monitoring results shall include identification of the size, location, depth and thickness of deposited organic waste piles.

**Response:** EPA will provide FWS with an annual summary report of all dive surveys conducted in association with this permit. The report will indicate where the dive occurred, the facility at which the dive is targeted, and the results of the dive. EPA will provide a report of the maximum thickness of deposited organic waste piles from those permittees which are required to measure pile thickness. *EPA has revised the permit at Parts IV.A.6, IV.B.5 and IV.C.4* in order to ensure that the permittee will provide an abstract or executive summary that supports the provision of annual summary reports to the Service and other interested parties.

**Measure:** FWS requests that EPA and the permittee determine if Steller's eiders are affected by the discharges of the seafood processing facility. FWS requests that EPA insure that the permittee contributes approximately \$5,000/yr towards a study which it will implement utilizing approximately \$150,000 of U.S. taxpayer funds to investigate the effects of seafood processor pollutants on Steller's eiders and their habitat. FWS asks that EPA and the permittee coordinate with FWS on design and implementation of an effects study within 12 months of the issuance of the permit.

**Response:** EPA agrees to work with FWS regarding the study described in this condition. The FWS request describes the study in vague terms, and so it is not possible at this point to say whether sufficient resources will be available. Data generated from the monitoring of eiders required in the permit may serve as a useful start for such a study. EPA believes it is possible to design a study that is practicably achievable within resource constraints, that is based on sound data, and that is satisfactory to the Service. EPA has *revised the permit at Part Attachment A* to include this condition pursuant to the Endangered Species Act.

**Measure:** FWS requests that the permit require the permittee to monitor the collision of Steller's eiders with the physical structures of their facilities (e.g., buildings, lights, poles, power lines, guy wires, vessels, docks and towers). Monitoring of collisions will include logging the number of Steller's eider observed injured or dead as a result of these structures, or that are otherwise know to have struck these structures. Dead eiders' shall be recovered and kept frozen until they can be transferred to FWS according to the dead and injured eider handling protocol. Any collisions, or suspected collisions between Steller's eiders and processing facilities shall be immediately reported to FWS Anchorage Field Office (1-800-272-4147).

**Response:** EPA realizes that this information is important to understanding the distribution and life history of Steller's eiders. EPA has *revised the permit at Part IV.B.2.c and Attachment A* to provide for the collection of information on injured and dead Steller's eiders at the permitted facility, and for a diligent effort by the permittee to rescue and revive injured Steller's eiders recovered at and adjacent to the permitted facility.

**Measure:** FWS requests that the permit require the permittee to monitor for Steller's eiders and other sea ducks and sea birds on the sea surface within 250 m radius of its refueling station on a weekly basis, recording date, time of observation, species, number, cardinal direction of the bird(s) relative to the fueling area, and distance from the fueling area in accordance with FWS requirements. The permittee shall consult and coordinate with FWS and EPA Region 10 in this monitoring.

**Response:** EPA realizes that this information could be important to understanding the effects of accidental diesel spills on Steller's eiders. EPA has *revised the permit at Attachment A* to provide for the monitoring requested by FWS under ESA.

**Measure:** NMFS and USFWS recommend that the permit state that "Any (seafood processing facility) discharge which results in the harassment of a marine mammal is a 'taking' in violation of the Marine Mammal Protection Act (MMPA), unless specifically authorized by NMFS or the U.S. Fish and Wildlife Service."

**Response:** EPA believes the MMPA speaks for itself in this regard. However, EPA has *added a statement into the section of the permit entitled "Table of Conditions pursuant to Selected Other Authorities" (Attachment A)* as an explicit reminder to the permittee of its potential liability under the MMPA.

**Measure:** NMFS recommends that the permit prohibit the discharge of petroleum pursuant to the protection of essential fish habitat provisions of the Fisheries Conservation and Management Act.

**Response:** The discharge of petroleum to waters of the U.S., adjoining shorelines, or into or upon waters of the contiguous zone is prohibited by federal statute. Part VIII.H of the Permit states: "Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve a permittee from any responsibilities, liabilities or penalties to which a permittee is or may be subject under Section 311 of the Clean Water Act or under the Oil Pollution Act." However, EPA agrees that the prohibition on discharges of petroleum should be explicitly stated for its permittees and EPA has *revised the permit at Part I.E.5 and Attachment A*.

**EPA'S JUSTIFICATIONS FOR OTHER CHANGES TO THE PERMIT  
ARE PROVIDED AS FOLLOWS:**

**Change:** EPA's draft permit provided a range of limits on the discharge of settleable solid process residues, addressing different particle sizes and different potential zones of deposit. The final permit specifies a limit for each of three particle widths at Part I.A.3.

**Basis:** EPA and ADEC sought to reconcile the dual needs for (1) acknowledging the steep slope of the undersea bluff adjacent to the Westward Seafoods' discharge and the reality of a waste pile that literally slides down this slope to occupy an area much larger than it would occupy on a level bottom and (2) limiting discharges of residues consistent with limits placed upon other Alaskan seafood processors. EPA and ADEC agreed to impose limits consistent with the one acre zone of deposit that is the standard for seafood processing deposition and to make provisions for the steep slope of the depositional area. EPA has attached the technical memorandum (Braun 1996) developed by its consultant, Tetra Tech, that was used as a basis for these limits after the application of a 10% margin of safety.

**Change:** EPA has expanded and elaborated Part I.E ("Other Effluent Conditions") of the permit.

**Basis:** ADEC's section 401 certification of the permit (McGee Sept. 17, 2001) provides the basis for these changes.

**Change:** EPA has revised the order of terms and conditions in Parts I, IV, VI, VII and VIII, and has made editorial changes and expanded descriptions of conditions therein.

**Basis:** ADEC suggested that the permit language and organization be reviewed and revised as necessary to clarify the meaning of limits, requirements and conditions.

**Change:** EPA has eliminated the provision for reduction of the waste pile to one acre in Part IV.A.7.

**Basis:** ADEC has authorized a two-acre zone of deposit for the permitted discharge.

**Change:** EPA has incorporated temperature monitoring of Discharge 002 into the water quality monitoring requirements at Part IV.C.

**Basis:** EPA has made this revision in support of the permittee's request to discharge additional non-contact cooling water through this outfall and in consultation and concurrence with ADEC's review and certification of the permit