

**EPA's Responses**  
**to Comments, Requests, Recommendations, Conditions, and Stipulations**  
**Pertaining to the Re-Issuance of general NPDES permit AK-G52-0000**  
**for Alaskan Seafood Processors.**

EPA has prepared these Responses to

Comments of the Public,

Requests of the Alaskan Tribes,

Recommendations of the  
National Marine Fisheries Service and U.S. Fish and Wildlife Service pursuant to the  
Fisheries Conservation and Management Act and the Marine Mammal Protection Act,

Conditions and Recommendations of the  
National Marine Fisheries Service and U.S. Fish and Wildlife Service pursuant to  
the Endangered Species Act,

and

Stipulations of the State of Alaska pursuant to  
the Clean Water Act and the Coastal Zone Management Act

on EPA Region 10's Reissuance of

General NPDES permit No. AK-G52-0000 for

Alaskan Seafood Processors.

NPDES Permits Unit (OW-130)  
U.S. Environmental Protection Agency, Region 10  
1200 Sixth Avenue  
Seattle, Washington 98101

July 17, 2001

**EPA'S RESPONSES TO  
THE COMMENTS OF THE PUBLIC  
ARE PROVIDED AS FOLLOWS:**

1. **Comment:** Trident Seafoods and Pacific Seafood Processors Association comment that EPA should distinguish between the unwashed and pressed fish mince used to produce frozen blocks of fish mince and the washed and pressed mince used to produce surimi in Part I of the permit. There are significant differences in the amounts and concentrations of pollutants (esp. BOD, biochemical oxygen demand) in the associated wastewaters generated in the production of these two products. The organic pollutants contained in the wastewater of unwashed mince is comparable to that of fish filleting and canning operations and should be covered under the Permit.

**Response:** EPA acknowledges that there is a difference in the unwashed fish mince product which is pressed and frozen into blocks and the washed, pressed fish mince product which may be used to produce surimi. There is a concomitant difference in the pollutant levels of their respective wastewater: washed mince releases much greater amounts of pollutants than unwashed mince due to the extensive and intimate contact of the wash-water with fish flesh. *EPA has revised the permit at Part X* to include definitions of mince, washed mince, and unwashed mince. *EPA has revised the permit at Part I.B* to clarify that its prohibition of the discharge of mince effluents by near-shore and shore-based processors refers to "washed mince" rather than to unwashed mince. The basis for the prohibition of the discharge of effluents from washed mince is that the high levels of biochemical oxygen demand (BOD) that characterizes this wastewater can depress dissolved oxygen in the water column; this impact makes such dischargers strong candidates for individual permits.

2. **Comment:** The At-Sea Processors Association comments that Fishery Management Plans require that "prohibited species" (e.g., salmon, crab, herring and halibut) be returned to the sea and comments that EPA should address this fishery management condition in the permit.

**Response:** EPA recognizes that the protection of "prohibited (catch) species" is an important aspect of fishery management plans. *EPA has revised the permit at Part II.A.1.a* so as to explicitly exempt returns of "prohibited (catch) species" from the grind-and-discharge requirement of processing wastes. Furthermore, *EPA has revised the permit at Part X* to define "prohibited species".

3. **Comment:** The At-Sea Processors Association comments that the National Marine Fisheries Service (NMFS) has closed portions, but not all, of Steller sea lion critical habitat to some or all fishing activities. These closures expand the protected Steller sea lion habitat beyond the rookeries and haul-outs excluded from authorization within the current draft NPDES permit and 1995 general NPDES permit. EPA should address these closures in the permit.

**Response:** EPA recognizes that the areas covered by each of the narrative descriptions of areas excluded from authorization under this general NPDES permit may change during the course of a permit's five-year term. EPA has provided narrative descriptions within Part III of the permit which protect water quality, environment, habitat and natural resources

in a dynamic manner which encompasses the changes which can occur and have occurred in the areas excluded from coverage to discharge under the permit. The extension of protection for Steller sea lions to fishing grounds is not included in the reference to rookeries and haul-outs and should be included for the protection of Steller sea lions. *EPA has revised the permit at Part III.A.6* to include critical habitat of Steller sea lions during NMFS' closures of fishing activities within these areas.

4. **Comment:** Trident Seafoods comments that EPA should extend the submittal date for the annual report from January 31 to February 28 in order to provide more time for members of industry to analyze December monitoring and to compile the previous year's data.

**Response:** EPA is persuaded that a February 14<sup>th</sup> submittal date for the annual report will be practical for both Alaska's widespread seafood processing industry and government data management. *EPA has revised the permit at Parts VI.B.4, VI.C.4, VI.C.7, and VI.D.5* to provide for submission of the annual report and the monitoring reports of the shoreline, sea surface and seafloor on or before February 14<sup>th</sup> of the year following the year of monitoring.

5. **Comment:** Tom Beardsley comments that there is no negative environmental impact from surface discharges by offshore floating processors: wastes disappear almost immediately because vessels are moving during processing. However, during rough weather wastewaters can be forced back up the discharge pipe in the case of subsurface discharges. Additionally, sea water is drawn up through the sea chest at the bottom of the vessel and thereby is likely to entrain processing wastes discharged at the proposed depths of three feet or greater. Waste discharges at the surface allow for greater separation and prevent wastes from being drawn up through the sea chest. Mr. Beardsley comments that EPA should change this draft permit condition to allow discharges at the sea surface by offshore vessels.

**Response:** EPA is persuaded that the proposed condition provides nominal benefits in the case of offshore discharges by vessels underway and poses risk to the contamination of the ship. *EPA has revised the permit at Part V.A.1.f* to provide for discharge to or below the sea surface through an outfall line(s) or a through-the-hull discharge portal(s).

6. **Comment:** The Pacific Seafood Processors Association comments that there is no evidence that seafood processing wastes cause or have reasonable potential to cause a violation of Alaska water quality standard for seafloor residues outside a one acre zone of deposit. The Association concludes that there is no need for a limit on the amount of discharged seafood processing wastes in the permit.

**Response:** There is evidence which indicates that the amount of seafood processing waste residue discharged by a facility can cause or have reasonable potential to cause or contribute to a violation of the Alaska water quality standard for seafloor residues outside of the one acre zone of deposit and in contravention of the zone of deposit requirements. Reports of seafloor dive surveys around processor outfalls indicate that exceedances of the one acre zone of deposit occur at a number (at least three) of shore-based seafood processors permitted under NPDES permit no. AK-G52-0000. Annual report data of the pounds of seafood processing waste discharged from those facilities indicate that levels of

waste discharged ranged from 10 million to 13 million pounds of seafood processing waste residues per calendar year.

Furthermore, information from seafood processors indicate that the volume of waste discharged is correlated to the reported events of waste pile eruptions caused by hydrogen sulfide and methane gas build-up in a waste pile that is released in low tide situations which produces the resuspension and flotation of scum and fish waste and attendance nuisance odors.

Alaska's water quality standard criteria for settleable residues (18 AAC 70.020) as applied to the beneficial use of water for the growth and propagation of fish, shellfish, other aquatic life, and wildlife is that "residues (including sludge and deposits) may not make the water unfit or unsafe for the use; . . . or cause a sludge, solid, or emulsion to be deposited . . . on the bottom, or upon adjoining shorelines." Alaska Department of Environmental Conservation (ADEC) authorized a one acre zone of deposit for each facility that is authorized to discharge under the general permit. ADEC stipulates that seafood processing discharges shall not violate the Alaska water quality standards criterion for residues beyond the zone of deposit and that in no case may water quality standards be violated in the water column outside of the zone of deposit by any action, including leaching from, or suspension of, deposited materials.

Waste piles of offal in excess of one acre on the bottom are a violation of the state-authorized zone of deposit and the Alaska water quality standards. Deposited seafood waste that leaches from or is resuspended from the waste pile is also a violation of the authorized zone of deposit and water quality standards. Sufficient evidence exists to support that larger volumes of waste discharged can cause, or have the reasonable potential to cause or contribute to excursions above the state water quality standards.

7. **Comment:** The Pacific Seafood Processors Association opposes the 10,000,000 lbs/yr limit on seafood processing waste residues and requests the elimination of this permit limit. The Association contends that the proposed 10,000,000 lbs/yr limit on the discharge of process wastes is arbitrary, capricious and contrary to law. First, the limitation is not authorized by EPA regulations [40 CFR 122.44(d)(1)] which authorize EPA to include water quality-based effluent limitations when those limitations are "necessary" to achieve water quality standards. Absent evidence that seafood processing discharges are causing or have the reasonable potential to cause violations of the Alaska water quality standards outside the one acre zone of deposit, the 10 million lbs/yr limit is not authorized by EPA regulations. Second, even if EPA had legal authority to impose a limit on seafood processing offal, the 10 million lbs/yr limit is arbitrary and capricious. Dive survey results provided to EPA by the processors demonstrate that discharge volume alone does not determine waste pile size; current speed and tidal action are more important. Therefore, the Association requests a waiver provision to discharge in excess of this or any other limit on seafood processing waste residues as conditions allow.

**Response:** The limit of 10,000,000 lbs per calendar year on seafood processing waste residues is not arbitrary, capricious or contrary to law. The permit limit for seafood processing waste residues is in compliance with law. The Clean Water Act provides that if necessary to meet applicable water quality standards, NPDES permits must contain water quality-based effluent limitations more stringent than limitations that would be required to

comply with the applicable technology-based standards [See 33 USC § 1311(b)(1)(C)]. EPA's regulations provide that a permit must contain effluent limits for any pollutant that EPA determines may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality [40 CFR 122.44(d)(1)].

As discussed in our response above, evidence supports that the volume of seafood processing waste discharged is a direct cause or no less than a contributing factor to exceedances of the one acre zone of deposit authorized under the state's water quality standards and is likely the contributor of other deleterious effects and excursions of the state's residue standard.

The permit limit of 10,000,000 pounds per calendar year of seafood processing waste (raw product minus finished product) in the general permit is not arbitrary or capricious. In establishing an effluent limit of 10 million lbs/yr EPA relied upon deposition modeling conducted by Tetra Tech (1996) which determined that a discharge of 12 million lbs/yr of settleable solid seafood processing residues per year would produce a 1.2 acre waste pile. Tetra Tech used EPA's WASP model in conjunction with the contouring software SURFER in its modeling analyses. In developing permit limits for seafood processing waste residues, EPA employed a straightforward algebraic equation:

$$\begin{aligned} X \text{ lbs per yr} / 1.0 \text{ acre} &= 12,000,000 \text{ lbs per yr} / 1.2 \text{ acre} \\ X &= (12,000,000 \text{ lbs per yr} / 1.2 \text{ acre}) \times 1.0 \text{ acre} \\ X &= 10,000,000 \text{ lbs per calendar year} \end{aligned}$$

The effluent limit of 10,000,000 lbs per calendar year on seafood processing waste residues is protective of the Alaska water quality standard for residues and is necessary to achieve the standard. The results of the model are borne out by the majority of facilities that discharge under the existing general permit, discharge less than 10 million lbs per calendar year, and have waste piles less than one acre and no other reported water quality problems.

EPA's information indicates that processors with discharge volumes around or in excess of 10 million lbs/yr have waste piles larger than one acre and/or have other water quality problems. EPA and ADEC reserve the right to decline a facility coverage under this general NPDES permit if the record of its discharges and its seafloor dive surveys indicate that the facility requires an individual NPDES permit in order to control its pollution and to protect Alaska water quality standards.

EPA acknowledges that the settling of solid seafood processing waste residues is too complicated to predict the actual size and shape of waste piles in every circumstance found throughout Alaska. Seafood processors discharging into high current areas may achieve wide-spread dispersal of residues without exceeding the state-authorized one acre zone of deposit. EPA agrees that permittees should have the opportunity to apply for a waiver of the effluent limit on seafood processing waste residues by submitting site-specific survey data collected over a number of years which demonstrate that a specific facility may exceed the effluent limit of 10,000,000 lbs per calendar year without exceeding the one acre zone of deposit, thereby remaining in compliance with the Alaska water quality standard for residues and the state-authorized one acre zone of deposit. *EPA has revised*

*the permit at Parts V.B.1(a) and V.C.1(a)* to provide waiver options based on site-specific field data assessing seafood waste deposition on the seafloor adjacent discharges.

EPA realizes that facilities covered by the general permit and having deposits of seafood processing waste residues that are greater than three quarters acre require its close scrutiny and concerned interest. EPA will evaluate the situation and activities of permittees with waste deposition that exceeds three quarters acre to determine whether the Alaska water quality standard for residues can be protected at such a facility through a change in management practices or whether the issuance of an NPDES individual permit with site-specific limitations and other conditions is appropriate.

8. **Comment:** Trident Seafoods requests that the effluent limit of 10,000,000 lbs/yr proposed for seafood processing wastes be increased to 12 million lbs/yr. The Water Quality Analysis Simulation Program (WASP) model predicts that a discharge of 12 million lbs/yr of settleable solid seafood processing residues will result in a one acre deposit on the seafloor. Trident Seafoods also requests that the permit include intermediate control measures to allow discharge at higher levels.

**Response:** EPA has selected the WASP modeling results as contoured by SURFER software as a conservative simulation of the relationship between discharge mass and the resulting waste pile rather than relying upon the results of the cellular WASP model alone. The WASP model is composed of quadrilateral cells that are rough approximations of the curved shapes characteristic of all seafood processing waste piles. Hence, the effluent limit for settleable residues is 10 million lbs/yr as determined by the simulation of WASP and SURFER rather than 12 million lbs/yr of WASP alone (and proposed by Trident Seafoods).

In other applications EPA has used WASP models to develop limits and wasteload allocations and has imposed a margin of safety of 5% to 25% in order to address the precision of WASP simulations. In the present application EPA has selected the more conservative simulation of residue deposition as one element of its margin of safety.; this constitutes a hypothetical margin of safety that could be as great as  $(2000/12000 =) 17\%$ . Additionally EPA has elected to limit the parameter "total seafood processing residues" rather than the parameter "total settleable solid seafood processing residues" as modeled by Tetra Tech. Total seafood processing residues include and are therefore equal to or greater than total settleable solid seafood processing residues. EPA estimates that the difference between the two parameters is approximately 3% and consists of floatable solids and fine, suspended solids with extensive settling times. The total margin of safety incorporated into the limit of 10 million lbs/yr ranges from three to twenty percent.

9. **Comment:** Trident Seafoods and Earle Hubbard comment that seafood processors which discharge more than a permit limit on seafood processing residues should not be excluded automatically from coverage under the general permit. Rather, EPA should provide an option for seafloor surveys to demonstrate that the limit on settleable solids can be exceeded without exceeding the one acre zone of deposit authorized by the state of Alaska.

**Response:** The permit does not prohibit coverage of seafood processors discharging more than 10 million lbs/yr of seafood processing waste residues. Rather, the permit limits

discharges to 10 million lbs/yr. As stated above, EPA agrees that permittees should have the opportunity to appeal for a waiver of the effluent limit on seafood processing waste residues by submitting site-specific survey data collected over a number of years which demonstrate that a specific facility may exceed the effluent limit of 10,000,000 lbs per calendar year without exceeding the one acre zone of deposit, thereby remaining in compliance with the Alaska water quality standard for residues and the state-authorized one acre zone of deposit. *EPA has revised the permit at Parts V.B.1(a) and V.C.1(a) to provide waiver options based on site-specific field data assessing seafood waste deposition on the seafloor adjacent discharges.*

10. **Comment:** The Pacific Seafood Processors Association requests the exemption of any residues dumped from ships underway at sea from the calculation of the total annual discharges of offal from seafood processing facilities.

**Response:** EPA finds that the offshore dumping of seafood processing wastes from a moving ship or barge into water that is greater than one nautical mile from shore and deeper than minus 120 ft mean lower low water (MLLW) is preferable to an inshore discharge which creates a large waste pile around an outfall pipe. *EPA has revised the permit at Parts V.B.1(a) and V.C.1(a) to exclude the amount of seafood processing residues disposed in at-sea discharges from this permit limit of 10,000,000 lbs per calendar year and to support the use of at-sea discharges of seafood processing waste from moving vessels as a preferable alternative to inshore discharges of seafood processing waste through outfalls.*

11. **Comment:** Trident Seafoods comments that EPA should remove the condition of no discharge if an outfall line is severed, fails, leaks or is displaced because a processor could lose production waiting for repairs. Rather than prohibit discharges from broken outfall lines, Trident suggests that EPA should make a decision as to whether or not seafood processing should stop at the time that such a break is recognized.

**Response:** EPA recognizes that Alaskan seafood processors may not be able to discontinue wastewater discharges immediately upon the failure of an outfall line due to a number of reasons. *EPA has revised the permit at Part V.C.1(f) to require that discharge from a severed, failed or leaking outfall line shall not continue beyond ten days after damage resulting in a leak unless such damage is repaired. Naturally, EPA expects permittees to have repair materials on-site and to make every effort possible to repair a damaged outfall line as soon as possible. Failure of an outfall line is to be reported to EPA and ADEC in accordance with Part VII.C.*

12. **Comment:** Trident Seafoods requests that EPA reduce the frequency of inspecting the efficacy of seafood waste grinders from daily to weekly. Due to the structure of waste handling system on vessels, daily inspections are difficult.

**Response:** EPA holds that it is a minimal and reasonable requirement to require permittees to conduct a daily visual inspection of processing waste grinders in order to insure that this wastewater treatment equipment is operational and reducing seafood offal to a maximum width. Visual inspections of wastewater treatment equipment are more easily implemented than the alternative of daily sampling and sizing of wastes. EPA has not revised the permit in response to this comment.

13. **Comment:** The Tongass Conservation Society and citizens of Ketchikan comment that seafood processing discharges are responsible for odors and floating offal wastes and fish scum. The commenters request that EPA require a zero discharge of seafood processing wastes and that these wastes be processed into a useful and economic by-product such as petfood, fish meal, fertilizer or compost. At a minimum, seafood processors in Ketchikan should be held to the technology-based standards for screening and reducing (rather than grinding and discharging) seafood processing waste residues that are applicable to fish processing centers and population centers in Alaska and throughout all of the lower 48 states.

**Response:** EPA is aware of the problems of floating residues and odor associated with seafood processing discharges that have troubled Ketchikan, Cordova and other cities and communities in Alaska, particularly during the late summer's salmon fisheries and extreme low tides. Yet Federal and state laws and regulations do not support the imposition of a zero-discharge limit in these circumstances. (See 40 CFR Part 408).

Nonetheless, EPA has imposed appropriate water quality-based limits and other requirements in the general permit that will maintain acceptable water quality. The present reissuance of general NPDES permit no. AK-G52-0000 includes new conditions (1) to limit the mass of seafood processing waste residues discharged at any single location which is likely to build up significant deposits on the bottom and (2) to require permittees to discharge at depths of minus 60 ft MLLW or greater unless the character of the receiving water makes such depths unreasonable to achieve or unnecessary for the protection of Alaska water quality standards.

EPA recognizes both the value of full-utilization of seafood and the costs of producing and marketing seafood by-products from remote and distant locations. EPA is persuaded that providing permit coverage which promotes the screening of seafood processing wastes for use in the production of secondary by-products such as meal and fertilizer and the associated reduction in seafood processing waste residues will benefit water quality in Ketchikan, Cordova and other Alaskan coastal communities with well-circulated receiving waters. At the same time, EPA understands that this extension of coverage should, at this time, be offered as an opportunity rather than as a requirement. *EPA has revised the permit at Part I.A* to extend coverage to seafood meal reduction and secondary production facilities. EPA and ADEC will consider the quantity and quality of proposed pollutant discharges, the hydrodynamic nature of the receiving water, and the excluded areas provided in Part III of the permit before authorizing coverage to an applicant.

14. **Comment:** The Southeast Alaska Conservation Council comments that, at a minimum, EPA must officially reinstate the germane effluent guidelines to apply best practicable control technology currently available for seafood processing facilities in Alaska's population and seafood processing centers. According to 40 CFR 408, both Ketchikan and Cordova are included in non-remote Alaskan locations which are held to technology-based limits.

**Response:** EPA agrees that it is better to refine seafood processing wastes into secondary by-products such as petfood, fish meal, fish protein concentrates, fish oil, fertilizer and compost than to discharge this material as wastewater pollution. The benefits



of such by-product use can be greater in a populated processing center like Ketchikan and the receiving waters of the Tongass Narrows. The technology exists to support the production of secondary seafood products at medium-sized processors. Unfortunately, Alaska's seafood industry has found that the costs of such by-products exceed market prices and therefore has not invested in the production and marketing of seafood by-products.

In 1975 EPA promulgated technology-based standards for non-remote and remote seafood processing centers (40 CFR Part 408; e.g., 40 Federal Register 55780). Anchorage, Cordova, Juneau, Ketchikan, Kodiak, and Petersburg were designated as non-remote population or processing centers held to more stringent limits than the one-half inch grind and discharge of remote Alaskan locations.

The Alaskan seafood industry challenged these non-remote designations. The legal battle was suspended when certain non-remote designations were suspended with Kodiak being designated as a seafood processing center (and a non-remote location) while the designation of the other cities was left as indeterminate. EPA Region 10 at this time does not have sufficient information about the feasibility of alternative disposal or use options but will gather more information in an attempt to update the record of the designations of these five remaining cities as well as several others in Alaska during this permit cycle and coordinate with EPA headquarters and its legal counsel in reconciling the 1975 determinations with current information.

As above, EPA is persuaded that providing permit coverage which promotes the screening of seafood processing wastes for use in the production of secondary by-products such as meal and fertilizer and the associated reduction in seafood processing waste residues will benefit water quality in Ketchikan, Cordova and other Alaskan coastal communities with well-circulated receiving waters. Until the completion of appropriate studies of current technologies and markets, EPA believes that this extension of coverage should be offered as an opportunity rather than as a requirement. *EPA has revised the permit at Part I.A to extend coverage to seafood meal reduction and secondary production facilities.* EPA and ADEC will consider the quantity and quality of proposed pollutant discharges, the hydrodynamic nature of the receiving water, and the excluded areas provided in Part III of the permit before authorizing coverage to an applicant.

15. **Comment:** The Southeast Alaska Conservation Council comments that EPA is reissuing and ADEC is certifying a general NPDES permit that allows for the discharge and deposition of large quantities of seafood processing wastes which may adversely impact the designated uses in Alaska's marine waters and the surrounding environment. The historical experience of southeast Alaska's citizens and communities demonstrates that the permit limits and the regulatory agencies' enforcement of these limits do not protect water and air quality . . . the foam, scum, grease and seafood offal floating on our waters and washed up on our shores, the piles of putrid flesh on the sea floor, and the annual degassing of fetid fumes from piles of rotting waste extending up to three to nine feet in height above the seafloor. EPA should change the permit with limits and conditions which protect the environment.

**Response:** EPA has prepared a permit with effluent limits, monitoring requirements and other conditions (e.g., best management practices) which are protective of Alaska water

quality standards and implement both technology-based limits and water quality-based limits. In particular, a permit limit on the amount of waste that may be discharged from a single facility has been added specifically to ensure compliance with the authorized zone of deposit.

In its § 401 certification of general NPDES permit AK-G52-0000, ADEC has provided for a zone of deposit of one acre and a mixing zone of 100 ft radius extending from the sea surface to the sea floor around the terminus of a permitted seafood processor's outfall. Qualitative observations have suggested that waste piles which are thicker than four feet and which are formed in waters shallower than sixty feet at mean lower low water may release decomposition gases of offensive quantity and quality during certain conditions (e.g., high tidal ranges). Hydrogen sulfide and methane generated by anaerobic decay and released by significant changes in hydrostatic pressure break up the waste pile and eject decomposing solids into the water column and up to the sea surface. Insufficient data exists to support a specific limitation on the thickness of such waste piles.

Both EPA and ADEC have limited quantities of personnel and financial resources for conducting compliance inspections and therefore fifteen to twenty seafood processing facilities are inspected annually (along with many other facilities in other industries). Behind such agency inspections, the Clean Water Act (CWA) presumes that permittees have knowledge of their operations and wastewater treatment and discharges and are responsible for honestly and accurately monitoring and reporting on their wastewater discharges.

Importantly, the CWA extends to any citizen or group of citizens the right to commence a civil action against any person (including the United States or any other governmental agency) who is alleged to be in violation of a permit limitation, a water quality standard or an order issued by EPA or a state with respect to such a standard or limitation. The right of citizen suit empowers citizens to secure enforcement of compliance violations on permittees. Any legal action against a permittee should be substantiated by appropriate evidence of such a violation(s), such as photographs and signed eye-witness statements [See CWA § 505 et al.].

EPA has not revised the permit to address this comment.

16. **Comment:** The Southeast Alaska Conservation Council recommends that processing be prohibited within: (1) 303(d) and 305(b) listed waters; (2) state parks, preserves, sanctuaries or recreation areas; (3) national monuments, historic or natural landmarks; (4) LUDIII; (5) wild & scenic rivers under the Tongass Land Management Plan; and (6) areas meriting special attention under the Alaska Coastal Zone Management Plan (ACMP). Waivers to discharge in these excluded areas are not in the public interest. Pre-existing facilities located in any of these areas should be permitted by an individual NPDES permit open to public review and comment.

**Response:** The permit already excludes many of the areas listed in the comment from authorization, such as the 303(d) listed waterbodies, state game sanctuaries, refuges and critical habitats, federal parks, monuments and wildlife refuges, wild and scenic rivers, areas meriting special attention, and areas with concentrations of threatened and endangered species. Application for a waiver with proper information and justification is

allowed under the permit, providing an opportunity to consider additional site-specific information developed and provided by and at the expense of applicants for coverage under the permit. Waivers will only be allowed if the interagency review of supplemental data concludes that discharges can occur without detriment to receiving waters and protected resources. In cases where no waiver is granted and a facility is not permitted under this general permit, a facility would apply for an individual NPDES permit.

EPA has not revised the permit to address this comment.

17. **Comment:** The Southeast Alaska Conservation Council comments that reducing overall seafood processing waste through best practicable control technology, strict effluent limitations, or by encouraging the conversion of fish processing waste into fertilizer or other beneficial uses would be superior alternatives to the variance of a one acre zone of deposit.

**Response:** EPA agrees that the reduction of seafood offal to marketable secondary by-products is preferable to pollutant discharges. However, the production and marketing of by-products such as petfood, fish meal, fish protein concentrates, fish oil, fertilizer and compost is reported by Alaska's seafood industry to be uneconomical. ADEC has used its discretion under 18 AAC 70.210 to authorize a one acre zone of deposit for seafood processing wastes after consideration of the effects of and alternatives to discharge. It is the state's prerogative to authorize a zone of deposit (and a mixing zone) that allows for an exceedance of Alaska water quality standards around a point of discharge and the state has exercised this prerogative. (See also the responses to comments 13 and 14 above.)

EPA has not revised the permit to address this comment.

18. **Comment:** The Southeast Alaska Conservation Council recommends that EPA include as a permit condition a provision giving the state and public adequate notice and opportunity to review specific facilities under Alaska's antidegradation policy and the ACMP.

**Response:** EPA is reissuing its state-wide general NPDES permit for approximately 240 Alaskan seafood processors for the third time. In accordance with 40 CFR § 122.28 EPA has elected to issue a general NPDES permit in the case of seafood processors located across Alaska because it finds that the area, pollutant sources and effluent limits are sufficiently compatible that it is appropriate for a general permit. EPA has detailed which facilities are covered by the permit, the limits, monitoring requirements and other conditions applicable to discharges permitted under the permit. The regulations provide for public comment on the draft permit, appeal of the final permit, or petitioning the agency that a particular permittee's authorization should be terminated. EPA took public comment on the draft permit from April 28, 2000, to June 12, 2000, and provided for a public hearing in Alaska. The State has actively worked with EPA in developing this permit, and has reviewed its terms and conditions and made its determination that the permit was likely to achieve state water quality standards as documented in its water quality certification on the permit. EPA has included in the general permit all of the State's stipulations and conditions contained in the certification. Likewise, ADEC has conducted the required public review of its water quality certification and its ACMP process and consistency determination. It is presumed that the State has met all necessary requirements under its water quality standards to issue its certification. EPA has met all of its requirements to comply with the

Clean Water Act in issuing this general permit. Therefore, it is neither necessary nor administratively efficient to provide for public review of specific seafood processors.

In the case of facilities which apply to discharge into excluded areas, EPA will notify the appropriate coastal zone management district(s) that a waiver is being considered. At that time the district office(s) will be able to express concern about areas meriting special attention and other significant issues. New facilities will be required to submit the Coastal Project Questionnaire to see if the new facility needs review for consistency under ACMP. Furthermore, the state must approve the granting of a waiver of the 10 million pound settleable residue limit or authorizing facilities under this permit that are located in at-risk or degraded water resources and water bodies.

EPA has not revised the permit to address this comment.

**EPA'S RESPONSES TO  
THE REQUESTS OF THE NATIVE TRIBES AND VILLAGES OF ALASKA  
ARE PROVIDED AS FOLLOWS:**

19. **Request:** The Native Village of Eyak requests that the permit language should include “federally-approved *tribal* coastal zone management plans.”

**Response:** EPA agrees that the permitting of facilities should encompass “federally-approved *tribal* coastal zone management plans.” With this inclusion, tribes will have the opportunity to participate in decisions on the waiver applications of facilities within their coastal zones. *EPA has revised the permit at Parts IV.D, V.B.1.a and V.C.1.a* to include “federally-approved *tribal* coastal zone management plans” and to provide for explicit consultation with relevant tribes within specific areas affected by applicant facilities.

20. **Request:** The Native Village of Eyak states that the suspension of technology-based effluent limitations for cities of Anchorage, Cordova, Juneau, Ketchikan and Petersburg has extended for 20 years and suggests that technological advances across two decades now provide reasonable alternatives to the discharge of seafood processing wastes.

**Response:** EPA agrees that it is better to refine seafood processing wastes into secondary by-products such as petfood, fish meal, fish protein concentrates, fish oil, fertilizer and compost than to discharge this material as wastewater pollution. The technology exists to support the production of secondary seafood products at medium-sized processors. Unfortunately, Alaska's seafood industry has found that the costs of such by-products exceed market prices and therefore has not invested in the production and marketing of seafood by-products.

In 1975 EPA promulgated technology-based standards for non-remote and remote seafood processing centers (40 CFR Part 408; e.g., 40 Federal Register 55780). Anchorage, Cordova, Juneau, Ketchikan, Kodiak, and Petersburg were designated as non-remote population or processing centers held to more stringent limits than the one-half inch grind and discharge of remote Alaskan locations.

The Alaskan seafood industry challenged these non-remote designations. The legal battle was suspended when certain non-remote designations were suspended with Kodiak being designated as a seafood processing center (and a non-remote location) while the designation of the other cities was left as indeterminate. EPA Region 10 at this time does not have sufficient information about the feasibility of alternative disposal or use options but will gather more information in an attempt to update the record of the designations of these five remaining cities as well as several others in Alaska during this permit cycle and coordinate with EPA headquarters and its legal counsel in reconciling the 1975 determinations with current information.

As above, EPA is persuaded that providing permit coverage which promotes the screening of seafood processing wastes for use in the production of secondary by-products such as meal and fertilizer and the associated reduction in seafood processing waste residues will benefit water quality in Ketchikan, Cordova and other Alaskan coastal communities with well-circulated receiving waters. Until the completion of appropriate studies of current

technologies and markets, EPA believes that this extension of coverage should be offered as an opportunity rather than as a requirement. *EPA has revised the permit at Part I.A to extend coverage to seafood meal reduction and secondary production facilities.* EPA and ADEC will consider the quantity and quality of proposed pollutant discharges, the hydrodynamic nature of the receiving water, and the excluded areas provided in Part III of the permit before authorizing coverage to an applicant.

21. **Request:** The Native Village of Eyak requests an examination by an independent examiner of all best management practices (BMPs) and BMP plans that are completed and submitted to EPA and ADEC by Alaskan seafood processors. The Native Village of Eyak requests that a report of this review be provided annually to Alaskan tribes for their review.

**Response:** The general permit requires that permittees develop and implement best management practices plans and make such plans available for inspection upon request by a duly authorized representative of the two regulatory agencies (i.e., EPA and ADEC). EPA sponsored and collaborated in the development and publication of a guidance document for seafood processors entitled “Seafood Processing Handbook for Materials Accounting Audits and Best Management Practices Plans” (Nicklason and Hill, 1995). The permit requires that permittees submit written certification of the completion and implementation of a BMP Plan to EPA and ADEC rather than submitting the plan itself.

EPA does not find this request to be necessary or reasonable and does not intend to contract an independent examiner to review BMP plans at seafood processors across Alaska. If a tribe, municipality or coastal zone management district is interested in the best management practices of a particular seafood processing facility in its jurisdiction, a government representative may request a copy of the best management practices plan from the permittee. EPA has not revised the permit to address this request.

22. **Request:** The Native Village of Eyak asserts that discharges into Orca Inlet with depths of less than 60 ft are not authorized under Part III.B. Orca Inlet is about 30 ft deep at the point of discharges. The processors in Cordova do not have written waivers to authorize their discharges.

Eyak opposes any waivers to the dischargers in Orca Inlet for coverage under this reissued general NPDES permit, as the permit limits and other conditions do not protect water quality, air quality and marine mammal safety.

Eyak is concerned about the attractive nuisance presented by seafood processing wastes. In particular, Eyak staff have studied sea otters for a number of years in Orca Inlet in conjunction with the U.S. Fish and Wildlife Service and have documented otter mortality occurring in animals feeding on cod, pollock and other fish wastes discharged during the winter months. The protection of these and other marine mammals are required by the Marine Mammal Protection Act.

**Response:** The 1995 version of general NPDES permit AK-G52-0000 excluded “areas with water depth of less than ten (10) fathoms mean lower low water (MLLW) that have or are likely to have poor flushing, including but not limited to sheltered waterbodies such as bays, harbors, inlets, coves, and lagoons and semi-enclosed water basins bordered by sills of less than ten (10) fathom depth.” [See Part III.B.a of the 1995 permit.] EPA did not issue

waivers to the Cordova facilities under the 1995 general permit because Orca Inlet has good flushing currents — current speeds generally exceed a knot — and therefore is not covered by the exclusion of at-risk waters in Part III.B of either the expired permit or the newly reissued permit.

EPA acknowledges that there are significant problems in Orca Inlet because of the seafood processing wastes. The cleansing effect of Orca Inlet's strong currents may be compromised by the high level of settleable solid waste residue discharges of at least one of its seafood processing facilities. EPA has received concerns expressed in the past by the Native Village of Eyak and citizens of Cordova concerning the annual releases of sulfurous gas from the waste piles, the clogging of a Coast Guard cutter's cooling water intake systems, the attraction of nuisance concentrations of sea gulls, and the attraction of foraging sea otters which may become sick or die in the receiving waters adjacent Cordova. EPA's Dive Team has inspected the waste pile on two occasions during the last decade and found that the waste piles, while substantial, are less than one acre in area.

EPA has consulted with Eyak and the U.S. Fish and Wildlife Service concerning the harmful effects of the waste piles of fresh groundfish residues (especially fish bones and fish parasites) on the sea otter population. EPA has also reviewed technical reports concerning seafood processing waste pollution and sea otter mortality (e.g., Williams, Williams and Blanchard, 1999, and King et al. 2000). EPA agrees that discharges of untreated fish processing waste residues into shallow water during winter months presents an unnatural and potentially harmful opportunity for sea otter feeding on disproportionately large quantities of fish skeletons and parasite-infected carcasses. *EPA has revised the permit at Part III.A.9 to prohibit the discharge of uncooked fish processing waste residues where piles may be an attraction to otters as a food source during the months of November, December, January, February, and March. Additionally, EPA has revised the permit at Parts V.B.1.i and V.C.1.i to prohibit the discharge of processing wastes that create an attractive nuisance.*

23. **Request:** The Native Village of Eyak requests that EPA distribute all reports pertaining to a permitted seafood processor to federally-recognized tribes that request such information, including dive surveys, annual reports, waste minimization opportunities, BMP plans and reports of violations/noncompliance.

**Response:** EPA can supply public reports and information pertaining to a permitted seafood processor to tribes, cities and coastal districts upon their request.

24. **Request:** Emmanuel Keyes, EPA Director of Bill Moore's Slough Elders Council, in Kotlik expresses concern about the direct impact of flowing waters from upriver seafood processing on subsistence foods and the environment down-river (Yukon) and the level of toxic contaminants (e.g., biocides and detergents) discharged by seafood processing facilities.

**Response:** EPA understands this concern of the Elders Council of Bill Moore's Slough about the potential for environmental impact of up-river discharges. The issue of down-stream pollution that can result from up-stream discharges is one of the classic effects of pollutant discharges. EPA addressed this issue in the current and previous general NPDES permit AK-G52-0000. In the 1995 permit EPA excluded (1) streams and rivers

within one statute mile upstream of a permanent drinking water intake and (2) lakes and other impoundments of fresh water.

EPA has expanded this exclusion in the current reissuance of the permit, removing the constraint of “one statute mile” to an extension of the entire stream or river. *EPA has revised the permit at Part III.B.3* to exclude “lakes, rivers and streams” from coverage by this permit unless a waiver is issued. An application for a waiver to be covered by this permit for discharges to a lake, river or stream will be forwarded to affected tribes and coastal districts for consultation.

25. **Request:** Numerous fishermen request that EPA change the permit to protect set and drift gill net fisheries from the costly, time-consuming fouling of these nets by seafood processors discharging into traditional subsistence and commercial gill net fishing areas.

**Response:** EPA agrees that permittees should control their discharges of seafood processing waste residues so as to avoid fouling gill nets used in traditional subsistence and commercial gill net fishing areas. EPA has found that seafood processors have opportunities to control the timing of their discharges and this control can be applied to preventing the fouling of gill nets. *EPA has revised the permit at Part VI.A.5.b(5)(c)* to provide a specific best management practice to reduce or eliminate any discharge of wastes that have the potential to collect and foul set or drift nets used in subsistence or commercial fisheries in nearby traditional use areas.

It is doubly significant that the state of Alaska has authorized a mixing zone extending in a 100 ft radius around the seafood processing waste discharge pipe that allows a variance of the prohibition against floating, suspended and deposited residues (which includes offal) within this zone. Inside this mixing zone there is no limit on seafood processing waste residues. Outside this mixing zone there is a zero-tolerance limit for such offal.

Importantly, the Clean Water Act extends to any citizen or group of citizens the right to commence a civil action against any person (including the United States or any other governmental agency) who is alleged to be in violation of a permit limitation, a water quality standard or an order issued by EPA or a state with respect to such a standard or limitation. The right of citizen suit empowers citizens to secure enforcement of compliance violations on permittees. Any legal action against a permittee should be substantiated by appropriate evidence of such a violation(s), such as photographs and signed and dated eye-witness statements. [See CWA § 505 et al.]

26. **Request:** The Chenega Bay IRA Council requests that EPA designate the environmentally sensitive areas of Chenega and Sawmill Bays, traditionally important subsistence harvest areas, as “excluded” from the general permit NPDES permit.

**Response:** EPA cannot justify excluding numerous and potentially expansive coastal waters around the state of Alaska from coverage on the basis of fishing uses without a substantial assessment of uses, rights and interactions. In this specific case, EPA will try to identify those vessels operating in the Chenega and Sawmill Bays and contact them about the problems of shoreline wastes in the subsistence harvest areas. EPA can, however, protect tribal subsistence fisheries with conditions within the permit that constrain permittees from discharging pollutants which foul and otherwise interfere with gill net



fisheries. *EPA has revised the permit at Part VI.A.5.b(5)(c) to require that permittees develop and implement best management practices which “reduce or eliminate any discharge of wastes that have the potential to collect and foul set or drift nets used in subsistence or commercial fisheries in nearby traditional use areas.”*

EPA recommends that concerns for the protection of subsistence fishing areas be formally incorporated in the Alaska coastal management plan, designating the subsistence (or commercial) fishing area, describing the use, substantiating the level of concern, and recommending methods for protecting this beneficial use.

Importantly, the Clean Water Act extends to any citizen or group of citizens the right to commence a civil action against any person (including the United States or any other governmental agency) who is alleged to be in violation of a permit limitation, a water quality standard or an order issued by EPA or a state with respect to such a standard or limitation. The right of citizen suit empowers citizens to secure enforcement of compliance violations on dischargers permitted under NPDES. Any legal action against a permittee should be substantiated by appropriate evidence of such a violation(s), such as photographs and signed eye-witness statements. [See CWA § 505 et al.]

**EPA'S RESPONSES TO  
THE RECOMMENDATIONS OF  
THE NATIONAL MARINE FISHERIES SERVICE AS PART OF  
EPA'S CONSULTATION UNDER THE  
FISHERIES MANAGEMENT AND CONSERVATION ACT  
AND OF  
THE NATIONAL MARINE FISHERIES SERVICE AND THE U.S. FISH AND WILDLIFE SERVICE  
PURSUANT TO  
THE MARINE MAMMAL PROTECTION ACT  
ARE PROVIDED AS FOLLOWS:**

27. **Measure:** The National Marine Fisheries Service (NMFS) recommends that the Permit include site-specific water quality concerns in addition to technology-based limits.

**Response:** EPA believes this comment was substantially addressed in the draft permit in *Parts II.A.5, III, IV.D.5-6, V.B.1.j-l, and V.C.1.j-l*. These permit conditions, which are carried forward to the final permit, address (1) compliance with Alaska water quality standards and (2) excluded areas and provision for site-specific reviews attending waivers of such exclusion.

As explained in the fact sheet and other support documents, EPA does not find that the discharges of seafood processing wastes authorized under the Permit require site-specific water quality analysis. The seafood processing industry, with over 200 facilities that discharge seafood offal and treated sanitary wastewaters, is well-suited to the administrative efficiency of a general NPDES permit. Site-specific water quality, as well as sensitivity of species protected under the ESA, is addressed to a significant extent through the limits on coverage in defined "excluded waters." Beyond this, EPA expects water quality concerns to be very similar from site to site. The general permit contains conditions that provide for regulatory review of the suitability of the permit and its limits for specific dischargers and the option to require individual NPDES permits in lieu of coverage under the general permit.

28. **Measure:** NMFS recommends that the permit limit discharges by new near-shore and shore-based facilities to 10,000,000 lbs of seafood processing waste residues per calendar year without an option for a waiver. NMFS recommends further that EPA require that new near-shore and shore-based facilities which propose to discharge more than 10,000,000 lbs of seafood processing waste residues per calendar year shall be required to apply for an individual NPDES permit.

**Response:** EPA believes this recommendation was addressed in part in the draft permit in *Parts V.B.1.a and V.C.1.a*. The permit limits discharges by near-shore and shore-based facilities to 10,000,000 lbs of seafood processing waste residues per calendar year and provides conditions for seeking and obtaining a waiver to this limit. EPA has developed the permit limit of 10,000,000 lbs of seafood processing waste residues per calendar year based upon modeling of a set of conservative scenarios which is environmentally protective.

The permit does provide for the option to apply for a waiver to this limit. The waiver provision is conditioned upon an applicant's demonstration that its exceedance of a 10,000,000 lbs per calendar year limit does not violate Alaska's water quality standards nor degrade the environment of the receiving water. If an applicant can demonstrate that larger quantities can be discharged at a site without violating Alaskan water quality standards, this data will provide a site-specific demonstration that the limit is inapplicable to the currents, depths, and other characteristics of the receiving water at that site.

In such a case, EPA will waive the permit limit of 10,000,000 lbs seafood processing waste residues per calendar year and rely upon the permit requirements that discharges comply with Alaska water quality standards and that the permittee monitor the accumulation of seafood processing wastes on the seafloor. EPA has taken enforcement action against permittees with waste piles that exceeded one acre and has required both remediation of such deposits and changes in pollutant treatment and discharges.

29. **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 "Selected Other Authorities" (*Attachment A*) as an explicit reminder to permittees of their potential liability under the MMPA.

30. **Measure:** NMFS recommends that the permit exclude "living substrates in shallow seas" from coverage under the permit pursuant to the protection of essential fish habitat provisions of the Fisheries Conservation and Management Act.

**Response:** EPA is able to address this comment through its authority to establish permit terms protective of water quality standards, which in Alaska expressly include the protection of aquatic life species. In response to this comment, *EPA has revised the permit at Parts III.A.10, IV.D.6, and X.*

31. **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 IX.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 II.B.3, V.A.1.h, V.B.1.h, and V.C.1.h.*

32. **Measure:** NMFS recommends that EPA expand its assessment of the effects of this permit re-issuance on essential fish habitat in Alaska.

**Response:** During its permitting of seafood processor discharges in Alaska, EPA has completed numerous environmental assessments, ocean discharge criteria evaluations, field studies, fact sheets, and responses to public comments. EPA believes that these technical documents, along with water quality studies and dive surveys conducted by permittees, provide a complete assessment of the effect of discharges covered by this general NPDES permit on essential fish habitat. EPA has previously provided copies of its technical documents to NMFS.

After analyzing the information referred to above, EPA has concluded that more than 95% of the permitted seafood processing discharges have limited, localized, short-term effects, and has therefore chosen to permit such discharges under general NPDES permits. Five percent of Alaska's seafood processors discharge quantities of ofal residues and biochemical oxygen demand that significantly degrade water quality of coastal bays. EPA requires that these facilities obtain individual NPDES permits, which allow for more consideration of site-specific factors and which will likely contain more stringent limits and more extensive and frequent monitoring.

The General Permit covers approximately 250 seafood processors operating and discharging across Alaska: 80 on-shore facilities, 20 near-shore facilities, and 150 off-shore facilities. Each of these 250 dischargers is authorized a mixing zone of 100 ft radius and 31,416 sq. ft area within which Alaska water quality standards can be exceeded for residues, dissolved gas, oil and grease, fecal coliform, pH, temperature, color, turbidity and total residual chlorine. One such mixing zone represents less than 0.5% of the surface area of a small bay measuring one-half mile by one-half mile. Taken collectively across Alaska and 250 permitted seafood processors, the cumulative areal effect on receiving waters is less than one-third of a square mile. The cumulative area of mixing zones of all seafood processors authorized to discharge under the General Permit is less than 0.0002% of State coastal seas (three miles wide) adjacent Alaska's 44,000 miles of coastline and less than  $4 \times 10^{-6}$  % of the fishery conservation zone (200 miles) adjacent to Alaska. Accordingly, EPA believes that the area of water quality affected by the non-toxic discharges authorized under the permit is relatively negligible.

Alaska water quality standards for floating, suspended and settleable residues, biogenic oil and grease, and fecal coliform bacteria are exceeded within these mixing zones. EPA believes that the Alaska water quality standards for dissolved gas, pH, temperature, color, turbidity, and total residual chlorine may be exceeded within a zone of initial dilution that occurs in the center of a mixing zone for stationary, shore-based dischargers, and are not exceeded by mobile near-shore and off-shore processors. Surveys of the mixing zones for seafood processors indicate that discharges of processing wastes attract and aggregate rather than repel and disperse fishes, sea birds and marine mammals.

Seafood processing wastes settle upon and may accumulate on the sea floor. The size and duration of deposits depends upon the amount and type of ofal discharged, the mobility of the source, and the depth and hydrodynamic characteristics of the receiving water. At one end of the continuum, seafood processing waste residues may be discharged from stationary sources as small volumes into moderate currents or large

volumes into high currents and from mobile sources as large volumes into deep waters, producing deposits that persist for periods of hours to weeks. At the other end of the continuum, stationary discharges of tens of millions of pounds of offal into low current waters can produce waste piles that cover acres of sea floor, rise twenty feet or more above the sea floor, and persist for years to decades. EPA, with the concurrence of ADEC, implements and administers an NPDES permitting strategy that covers the majority of Alaskan seafood processors which produces small, short-term deposits under general permits featuring technology-based limits for remote Alaskan locations and ambient monitoring of the sea surface, shoreline and sea floor. High-impact dischargers of seafood processing wastes are permitted individually with site-specific water quality-based limits and effluent as well as ambient monitoring.

Seafood waste may be consumed by large marine life such as sea lions, sea otters, fish, crabs, sea stars, and shrimp for as much as one week after discharge. After a week, the utilization of discharged offal is essentially the province of nematode assimilation and bacterial decomposition. Decaying seafood wastes can be beneficial to the sea floor habitat when dispersed. In those areas where seafood wastes accumulate as large mats or piles of rotting flesh, bones and shells, it can eliminate all life more complex than anaerobic bacteria that is trapped beneath the waste.

As noted above, the General Permit will authorize discharges from 80 on-shore, 20 near-shore, and 150 mobile off-shore facilities. Based on the data and technical literature available, EPA believes that (1) 80% of the permittees have no persistent deposits associated with their discharges (40 on-shore, 10 near-shore, and 150 mobile off-shore facilities), (2) 16% of the permittees have persistent deposits of less than one-half acre (30 on-shore and 10 near-shore facilities), and (3) 3% of the permittees have persistent deposits of between one-half acre and one acre (7 on-shore facilities). Three facilities have deposits of seafood processing waste residues that exceed the State-authorized one acre zone of deposit; EPA and ADEC are currently negotiating with these facilities for the implementation of alternate methods of treating these discharges and reducing their deposits. Based on this understanding of the impacts of seafood processing waste residues on the sea floor, EPA finds that the cumulative burial of sea floor by persistent and contiguous deposits of decaying offal is approximately one-third square mile across all of Alaska ( $4 \times 10^{-5}\%$ ). A one-acre zone of deposit would represent 0.625% of the surface area of a small bay measuring one-half mile by one-half mile, though no Alaskan seafood processor authorized to discharge into a bay of this size has created a waste deposit as large as an acre.

EPA believes that discharges of these dimensions and of this nature have a minimal adverse effect on essential fish habitat on the sea floor. EPA will continue to collect ambient monitoring data from seafood processors permitted to discharge under NPDES permits. EPA will continue to build upon its assessment of the effects of permitted seafood processing wastes discharges on essential fish habitat in Alaska in future permit re-issuances. EPA looks forward to the contributions of NMFS' own studies of these effects to expanding this assessment.

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

33. **Measure:** The U.S. Fish and Wildlife Service (FWS) requests that EPA provide it with a list and map of the areas excluded from coverage by the permit.

**Response:** EPA provides a list and map of the areas excluded from coverage by the permit for use and reference by permittees and interested federal, state and tribal agencies. *EPA has addressed this measure at Appendices A, B and C.* These appendices are carried forward to the final permit.

34. **Measure:** NMFS and FWS request that EPA make a determination of the potential effect of a permitted discharge on listed threatened or endangered species and that the permit provide for consultation with the Services prior to the issuance of any waivers for discharges into excluded areas identified as protected, special, at-risk, or degraded waters.

**Response:** The draft permit provided for consultation with NMFS and FWS in the authorization of waivers for discharge in "excluded areas" as well as its 1995 predecessor. *EPA has addressed this measure in the final permit at Part IV.D.* EPA will, in consultation with the services, make a determination of the potential effects of individual waivers on ESA-listed species and their habitats that is consistent with the terms and conditions of the USFWS biological opinion and the terms of the permit.

35. **Measure:** FWS requests that EPA provide it with a list of the locations of seafood processors authorized to discharge by the permit and update this list annually.

**Response:** EPA is developing a tracking database in Lotus Approach for the administration of information on seafood processors which will supplement the national Permits Compliance System database and support convenient reporting of information on dischargers and their locations. EPA will provide reports annually to FWS, NMFS and ADEC. *EPA has addressed this measure in the permit at Parts IV.C.4, IV.C.7 and VI.B.2.c(5).*

36. **Measure:** FWS requests that the permit require new permittees to position seafood processing waste discharges where they are least likely to cause harm to species listed as threatened or endangered under the Endangered Species Act (ESA).

**Response:** EPA recognizes that new permittees should locate discharge outfalls so as to minimize adverse effects upon listed species. *EPA has addressed this measure in the permit at Parts III, IV.D, V.B.1.f, V.B.1.i, V.C.1.f, V.C.1.i, and VI.A.3.*

37. **Measure:** FWS requests that the permit prohibit seafood processors 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. Documentation exists to include Bechevin Bay, Morzhovoi Bay, Izembek Lagoon, Nelson Lagoon/Port Moller Complex, Cape Seniavin, Seal Islands, Port Heiden, Cinder River State Critical Habitat Area, Ugashik Bay, Egegik Bay, Kulukak Bay, Togiak Bay, Nanwak Bay, Kuskokwim Bay, Goodnews Bay, and the south side of Nunivak Island.

**Response:** EPA maintains its assessment that the discharges of seafood processing wastes which are authorized under general NPDES permit AK-G52-0000 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 this 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. Nor has FWS obtained and provided an independent modeling analysis of the impact zone of its hypothetical spill for 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 repeats its earlier requests that FWS confer with EPA and members of the Alaska and NOAA oil spill offices to reconcile this discrepancy (Hill, 12/01/2000).

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 II.B.3* and a best management practice requiring evaluation of refueling areas for containment *in the permit at Part VI.A.4.b(1)*.

EPA maintains that the scope of reasonable and prudent measures 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 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.

FWS has provided this list of waters that it has identified as critical habitat for Steller's eiders, i.e., which functions as habitat for Steller's eiders during some part of the year. EPA has included these listed waters as areas excluded from coverage under this permit in accordance with FWS' biological opinion. In accordance with permit conditions, permittees may request waivers to discharge in "excluded areas" and can expect that EPA, ADEC, FWS and NMFS will confer in evaluating and acting upon such requests. *EPA has addressed this measure in the permit at Parts III, IV.D, VI.D.2-3, and Appendices A, B and C.*

38. **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 all of its permittees under this permit are 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 "Selected Other Authorities." This should increase awareness among permittees of their potential liability under this regulation. The investment of resources that would be required to inspect all permitted facilities for compliance with this regulation would be very substantial, and would at the very least require a major reordering of EPA's inspection priorities for the State of Alaska. Accordingly, EPA anticipates that it will not be able to meet FWS' request for such a written assurance.

39. **Measure:** FWS requests that EPA shall prepare an annual summary report of petroleum releases by permittees 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:** EPA does not collect information on petroleum releases in offshore waters. To do so would require a significant restructuring of EPA's information-gathering activities in Alaskan waters. EPA anticipates that it will not be able to supply the requested annual summary report, which EPA believes would constitute more than a minor change to the proposed action (i.e., issuance of the permit). FWS must look to agencies and offices currently committed to tracking petroleum releases in Alaskan waters for spill reports.

40. **Measure:** FWS requests that EPA require permittees to report to FWS all dead, injured, or contaminated Steller's eiders resulting from petroleum releases by the permittee or other 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 EPA. Alternately, EPA may require that the permittee shall bear these bird rehabilitation costs.

**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 VI.D.7.a(4).* In its outreach efforts described in the next Response below, EPA will inform permittees of the protocol for handling dead, injured, and contaminated eiders. EPA is not aware of a mechanism through which EPA could either directly fund rehabilitation of injured or contaminated eiders or require permittees to bear these costs.



41. **Measure:** FWS requests that EPA conduct outreach efforts that encourage permittees 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. EPA has also provided conditions supportive of such reporting in the permit. *EPA has addressed this measure in the permit at Parts VI.B.2.e, VI.D.2-3, and Appendix D.* EPA looks to FWS and NMFS for their collaboration and support in the development and dissemination of information protective of ESA-listed species.

42. **Measure:** FWS requests that EPA develop a database of Steller's eider sightings for all locations where shore-based and near-shore seafood processors discharge under the 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 permittees of AK-G52-0000 to monitor the numbers of Steller's eiders and other ESA-listed species within the established sea surface monitoring program. *EPA has addressed this measure in the permit at Parts VI.B.2.e, VI.D.2-3, and Appendix D.*

43. **Measure:** FWS requests that the permit require all permittees to conduct daily seabird and sea duck monitoring within a 500 m radius around their facility and its seafood processing waste discharge outfall. The daily monitoring log shall record the species, number, cardinal direction of the bird relative to the facility or outfall, and the distance of the bird from the facility or outfall.

**Response:** EPA does not believe that seafood processors will have staff qualified to identify Steller's eiders, a small sea duck whose females' plumage looks very much like other sea ducks. Nor does EPA believe that observers with binoculars can reliably identify sea ducks in typical Alaskan sea states at a distance of 500 meters. EPA does believe that observers can look for and attempt to identify and count sea ducks in the 100 ft mixing zone around their outfalls, though the accuracy of such observations is likely to be uncertain. To this end, EPA has extended the purpose of its sea surface monitoring conditions to include recording sightings of ESA-listed species. *EPA has addressed this measure accordingly in the permit at Parts VI.B.2.e, VI.D.2-3, and Appendix D.* EPA looks to FWS to provide training for the identification of Steller's eiders.

44. **Measure:** FWS requests that EPA require permittees discharging into shallow water of less than ten fathoms (60 ft MLLW) within four nautical miles of locations which have been documented to have been used by 1,000 or more Steller's eiders to conduct a weekly bird census of waters within one nautical mile of the facility. Documentation exists to include Bechevin Bay, Morzhovoi Bay, Izembek Lagoon, Nelson Lagoon/Port Moller Complex, Cape Seniavin, Seal Islands, Port Heiden, Cinder River State Critical Habitat Area, Ugashik Bay, Egegik Bay, Kulukak Bay, Togiak Bay, Nanwak Bay, Kuskokwim Bay, Goodnews Bay, and the south side of Nunivak Island.

**Response:** EPA believes the concerns underlying this request are largely addressed by the “excluded waters” provisions of the General Permit. However, the weekly census requested would add significantly to the cost of compliance, and therefore would constitute more than a minor change to the permit. Accordingly, and because the “excluded waters” provision goes far towards addressing FWS’ underlying concern, EPA is not requiring that permittees conduct the requested surveys within the permit. FWS may, however, provide this condition as a pre-requisite for approval of any waiver to operate and discharge in receiving water which identified as prime habitat for Steller’s eiders.

45. **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. In addition, FWS requests that EPA provide FWS in writing a list of all instances in which dives were indicated as being necessary but for which dives did not occur.

**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 may discuss with FWS instances in which dives were indicated as being necessary but for which dives did not occur.

46. **Measure:** FWS requests that EPA determine if Steller’s eiders are attracted to the discharge of seafood processors. EPA shall coordinate with FWS on study design and shall implement it 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 only 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 General Permit may serve as a useful start for such a study, and so EPA believes it may be possible to design a study that is practicably achievable within its resource constraints, that is based on sound data, and that is otherwise satisfactory to the Service.

47. **Measure:** FWS requests that the permit require permittees 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 addressed this measure in the permit at Parts VI.B.2.e, VI.D.2-3, and Appendix D.*

48. **Measure:** FWS requests that all new stationary seafood processors shall conduct no fewer than six surveys for Steller's eider within four nautical miles of the facility's proposed site. The surveys shall be conducted at intervals of two weeks or greater and conducted between November 1 and March 30. Surveys must follow the standard protocol adopted by FWS Office of Migratory Bird Management for surveys of seabirds and sea ducks by boat and/or aircraft. Information from individual surveys shall be made available to FWS upon request.

**Response:** As mentioned above, the General Permit requires monitoring and recordkeeping regarding dead, injured, and contaminated eiders. As also mentioned above, EPA's outreach efforts will include dissemination of the injured bird protocol.

**EPA'S RESPONSES TO  
THE STIPULATIONS OF ALASKA'S CLEAN WATER ACT § 401 CERTIFICATION AND  
COASTAL ZONE MANAGEMENT ACT CONSISTENCY DETERMINATION  
ARE PROVIDED AS FOLLOWS:**

49. **Stipulation:** The State of Alaska authorizes a mixing zone for discharges covered by the permit with dimensions described as follows: (a) the horizontal extent determined by 100 ft radius from the outfall and (b) the vertical extent extending up to the sea surface and down to the seafloor. The mixing zone is a volume of water which surrounds the discharge outfall where the effluent plume is diluted by the receiving water within which the following specified water quality criteria may be exceeded: residues, dissolved gas, oil and grease, fecal coliform, pH, temperature, color turbidity, and total residual chlorine.

**Response:** In response to the State's authorization of a mixing zone *EPA has revised the permit at Parts V.A.1.i, V.B.1.k, V.C.1.k, and VI.D.2-3.*

50. **Stipulation:** The State of Alaska authorizes a zone of deposit of one (1) acre for facilities covered by the permit under the classifications of "near-shore seafood processor" and "shore-based seafood processor." Discharges shall not violate the Alaska water quality standards criterion for residues beyond the authorized zone of deposit. In no case may water quality standards be violated in the water column outside of the zone of deposit by any action, including leaching from or suspension of deposited materials.

**Response:** In response to the State's authorization of a zone of deposit *EPA has revised the permit at Parts V.B.1.i, V.C.1.i, and VI.C.2-3.*

51. **Stipulation:** The State of Alaska requires that the permit exclude any waterbody that would not meet the minimum requirements for mixing zone size as specified under 18 AAC 70.255: "the linear length of all mixing zones intersected on any given cross section of an estuary, inlet, cove, channel or other marine water may not exceed 10% of the total length of that cross section and the total horizontal area allocated to all mixing zones may not exceed 10% of the surface area (of the waterbody)."

**Response:** In response to this stipulation, *EPA has revised the permit at Part III.D.*

52. **Stipulation:** The State of Alaska requests that permittees with shore-based facilities identify the municipal sewage system or on-site septic system that accepts its discharges and the design capacity and treatment process of this service system.

**Response:** In response to this stipulation, *EPA has revised the permit at Part IV.C.8.a.*

53. **Stipulation:** The State of Alaska requires that a request for a waiver to discharge in an excluded area must include a description of how and why the discharges will not cause a violation of Alaska water quality standards, including antidegradation, the zone of deposit and the mixing zone.

**Response:** In response to this stipulation, *EPA has revised the permit at Part IV.D.5.*

54. **Stipulation:** The State of Alaska requires that a request for a waiver to discharge in “at-risk water resources and waterbodies” and “degraded waterbodies” must be approved by ADEC prior to approval of the waiver and authorization to discharge under this permit.

**Response:** In response to this stipulation, *EPA has revised the permit at Part IV.D.*

55. **Stipulation:** The State of Alaska requests that best management practices plans for facilities discharging upstream of gill-net fisheries shall include specific practices and standard operating procedures to eliminate the discharge of solid wastes that collects in gill-nets.

**Response:** In response to this stipulation, *EPA has revised the permit at Part VI.A.5.b(5)(c).* This stipulation supports EPA’s responsive revision to the permit based upon the comments of commercial fishermen concerning the deleterious effects of seafood processing waste discharges on gill nets (both drift-nets and set-nets).

56. **Stipulation:** The State of Alaska requests that permittees meet the recording and reporting requirements of the permit using forms for the Notice of Intent, annual report, seafloor survey, and sea surface survey.

**Response:** EPA has incorporated this stipulation into the permit at *Parts IV.A, VI.B, VI.C, VI.D, and Attachments B, C, D and E.*

57. **Stipulation:** The State of Alaska requires that new shore-based and near-shore facilities applying for authorization to discharge under the permit submit an Alaskan Coastal Project Questionnaire to the Alaska Department of Governmental Coordination for its review of consistency with the Alaska Coastal Management Program.

**Response:** In response to this stipulation, *EPA has revised the permit at Part IV.A.4.*

58. **Stipulation:** The State of Alaska requests that EPA consult with ADEC, ADGC and the appropriate coastal district(s) to ensure that the proposed discharge is in compliance with the ACMP statewide standards and the coastal district policies.

**Response:** In response to this stipulation, *EPA has revised the permit at Parts IV.A.4, V.B.1.a, and V.C.1.a.*

59. **Stipulation:** The State of Alaska requests that the permit shall prohibit the discharge of processing wastes which create an “attractive” nuisance situation whereby the discharge attracts wildlife in a manner that creates a threat to wildlife or to human health and safety.

**Response:** In response to this stipulation, *EPA has revised the permit at Parts V.B.1.i and V.C.1.i.* This stipulation supports EPA’s responsive revision to the permit based upon the comments of the Native Village of Eyak and the U.S. Fish and Wildlife Service concerning the protection of sea otters from the dangers of ingesting untreated fish processing waste residues.