

STATE OF ALASKA

**DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
WASTEWATER DISCHARGE AUTHORIZATION PROGRAMS**

SARAH PALIN, GOVERNOR

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Aug 29, 2008

Mr. Mike Lidgard, NPDES Unit Manager ADEC File # 900.54.004
US Environmental Protection Agency, Region 10
1200 Sixth Avenue, Suite 900, OWW-130
Seattle, Washington 98101

**RE: ADEC Draft Section 401 Certification of NPDES Permit AKG- 524000,
Offshore Seafood Processors in Alaska**

Dear Mr. Lidgard;

On June 24, 2008, you requested a draft 401 certification for the issuance of NPDES Permit AKG-524000 regulating discharges from Offshore Seafood Processors in Alaska.

In accordance with Section 401 of the Clean Water Act and with Alaska Administrative Codes 18 AAC 15, 18 AAC 70 (Water Quality Standards) and 18 AAC 72 (Wastewater Discharge), the Alaska Department of Environmental Conservation (ADEC) has prepared the enclosed draft Certificate of Reasonable Assurance for NPDES Permit AKG-524000. Prior to making a final determination, the ADEC will accept and review any comments received during the public notice period of the NPDES permit and this draft 401 certification for this activity.

ADEC regulations provide that any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195- 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Director of Water, 555 Cordova Street, Anchorage, Alaska 99501, within 15 days of receipt of the permit decision. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, PO Box 111800 Juneau, Alaska 99811-1800, within 30 days of the permit decision. If a hearing is not requested within 30 days, the right to appeal is waived.

Be advised, pursuant to 18 AAC 15.120(c), the certification of the NPDES permit constitutes the permit required under AS 46.03.100. Also, 18 AAC 15.120(c) states, "Any rights or privileges inuring to the benefit of EPA in the NPDES permit, including any right to enter, inspect, sample, and have access to records, also inure to the benefit of the department. Any reports or other information filed

with EPA in accordance with the NPDES permit must be contemporaneously filed with the department.”

If you have any technical questions regarding this draft certification, please contact Fran Roche at 907-465-5320 or fran.roche@alaska.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Shawn Stokes", with a horizontal line extending to the right.

Shawn Stokes
Industrial Permitting Manager

Enclosures: Draft Certificate of Reasonable Assurance for NPDES Permit
AKG-524000 Offshore Seafood Processors in Alaska

cc:

Lindsay Guzzo, EPA, Seattle
Fran Roche, ADEC/Juneau
Katy McKerney, ADEC/Juneau
Kenwyn George, ADEC/Juneau
Sharmon Stambaugh, ADEC/Anchorage

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CERTIFICATE OF REASONABLE ASSURANCE

A Certificate of Reasonable Assurance, as required by Section 401 of the Clean Water Act, has been requested by EPA for National Pollutant Discharge Elimination System (NPDES) General Permit No. AKG-52-4000, Offshore Seafood Processors in Alaska, for facilities located in State waters at least 0.5 nautical miles from shore at MLLW to 3 nautical miles from shore at MLLW for the discharge of pollutants from these processors to waters of the State of Alaska.

Public Notice of the application for this certification has been made in accordance with 18 AAC 15.140.

Water Quality Certification is required for the activity because the activity will be authorized by an EPA permit identified as NPDES No. AKG-52-4000 and discharges into State waters will result from the activity authorized under this permit.

Having reviewed the permit, ADEC certifies there is reasonable assurance the activity, and the resultant discharge, is in compliance with the requirements of Section 401 of the Clean Water Act and the Alaska Water Quality Standards (18 AAC 70) as amended through June 26, 2003, provided that the terms and conditions of the final certification are adhered to.

Through this certification, in accordance with 18 AAC 15.120, the NPDES permit will constitute the permit required under AS 46.03.100, provided that the stipulations of the certification are made part of the permit.

The department is specifying the following permit stipulations under authority of AS 46.03.110(d).

State of Alaska Certification Stipulations:

1. An applicant is required to obtain written authorization from ADEC to discharge pollutants from operators of off-shore vessels, operators of near-shore vessels, and at-sea dischargers. Only discharges to waters that have not been identified as protected, special, at-risk or degraded will be authorized. See the rationale for definition of the three classes of operators and the definitions of the waters that will not be authorized for discharge.

Rationale:

In accordance with AS 46.03.110 (d), the Department may specify in a permit the terms and conditions under which waste material may be disposed of. The ADEC written authorization requirement will provide the Department, through the review and approval of the Notice of Intent (NOI), oversight of the proposed activity and allow review of treatment process for those facilities that apply for coverage under the general permit. Review of the NOI will provide assurance to the public that the wastewater is being treated to comply with the State of Alaska Water Quality Standards 18 AAC 70 and the Alaska Wastewater Disposal Regulations 18 AAC 72.

The written authorization will also be the mechanism for the authorization of a site specific zone of deposit if requested in a NOI.

Authorized Dischargers

- *Operators of off-shore vessels, operating and discharging "seafood processing waste" greater than 1 nautical mile (NM) from shore as delineated by mean lower low water (MLLW), engaged in the processing of fresh, frozen, canned, smoked, salted or pickled seafood or the processing of seafood mince, paste or, meal and other secondary by-products ;*
- *Operators of near-shore vessels, operating and discharging "seafood processing waste" 0.5 -1.0 nautical mile (NM) from shore as delineated by mean lower low water (MLLW), engaged in the processing of fresh, frozen, canned, smoked, salted or pickled seafood, the processing of unwashed mince, or the processing of meal and other secondary by-products; and*
- *At-sea discharges. Shore-based processors engaged in the processing of fresh, frozen, canned, smoked, salted or pickled seafood or the processing of seafood mince, paste, or meal, and discharging "seafood processing waste" at-sea to receiving waters that are at least 1 nautical mile (NM) from shore as delineated by mean lower low water (MLLW).*

Protected water resources and special habitats

- *Waters within 1 NM of the boundary of a State Game Sanctuary, State Game Refuge, State Park, State Marine Park, or State Critical Habitat are excluded from coverage by the Permit. Lists and maps of these areas can be found in Appendices A and B of the Permit.*
- *Waters within 1 NM of the boundary of a National Park, Monument or Preserve or within any bay, fjord or harbor enclosed by a National Park, Monument or Preserve are excluded from coverage by the Permit. Lists and maps of these areas can be found in Appendices A and B of the Permit.*
- *Waters within 1 NM of the boundary of a National Wildlife Refuge are excluded from coverage by the Permit. Lists and maps of these areas can be found in Appendices A and B of the Permit.*
- *Waters within 3 NM of a rookery or major haulout of the Steller sea lion are excluded from coverage by the Permit. These areas are designated as critical habitat for the Steller sea lion. The Steller sea lion population west of longitude 144°W is classified as endangered, and the Steller sea lion population to the east of 144°W is classified as threatened. They are listed and depicted in 50 CFR Part 226 and 227.12, the "Seafood ODCE" (ADEC, EPA, and Tetra Tech 2008) and "Biological evaluation" (EPA 2008a).*
- *Waters within 1 NM of designated critical habitat for the Steller's eider or spectacled eider, including nesting, molting and wintering units. During breeding season (May through August) Steller's and spectacled eider nesting critical habitat units are located on the Yukon-Kuskokwim Delta and North Slope. Molting habitat (July through October) for Steller's eiders includes Izembek Lagoon, Nelson Lagoon and Seal Islands. Molting habitat for spectacled eider includes Ledyard Bay and Norton Sound. Wintering habitat (October through March) for Steller's eider includes Nelson Lagoon, Izembek Lagoon, Cold Bay, Chignik Lagoon and several other locations along the Aleutian Islands. Wintering habitat for spectacled eider is in the Bering sea between*

St. Lawrence and St. Matthews Islands. For complete lists and maps of Steller's eider and spectacled eider critical habitat see Appendices A and B of the Permit.

At-risk resources and waterbodies

- *Areas with water depth of less than 10 fathoms (60 feet) at MLLW that 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 10 fathom depths are excluded from coverage under the Proposed Permit. For the purposes of this section, "poor flushing" means average water currents of less than one third of a knot within 300 feet of the outfall. Currents of one third knot and greater offer significant dispersion and re-suspension of seafood process waste residues (ADEC, EPA and Tetra Tech 2008). It is the responsibility of the permittee to prove adequate flushing at the time of NOI submittal. If EPA and/or ADEC disagree with the flushing analysis, the permittee may be required to submit an application for an individual permit.*
- *Lost Harbor, Akun Island is excluded from coverage under the Proposed Permit. This harbor has a sill of twelve fathoms which restricts circulation in the enclosed basin of 28 fathoms. EPA has found that this waterbody has been degraded by seafood waste discharges and closed it to further discharges.*

Degraded Waterbodies

- *Any waterbody included in Alaska Department of Environmental Conservation's (ADEC) CWA 305(b) report or CWA 303(d) list of waters which are "impaired" or "water quality-limited" for pollutants in the authorized discharges are excluded from coverage.*

Orca Inlet

- *No discharge of uncooked fish processing waste residues may occur during the months of November, December, January, February and March in of Orca Inlet where sea otters, which are protected under the Marine Mammal Protection Act, are attracted to the discharge and waste deposit as a food source.*

2. ADEC designates a mixing zone for each facility that is authorized by ADEC. The mixing zone is defined as the area of a circle with a radius of 100 feet, centered at the discharge point or end of pipe, extending from the discharge point to the surface and down to the sea floor. The mixing zone size will remain constant, but will move with the facility in the authorized area(s) as designated in the approved NOI and on the ADEC authorization. The mixing zone is for residues, dissolved gas, non-hydrocarbon oil and grease, fecal coliform, pH, temperature, color, turbidity, and total residual chlorine. Within the authorized mixing zone the State of Alaska Water Quality Standards for residues, dissolved gas, non-hydrocarbon oil and grease, fecal coliform, pH, temperature, color, turbidity, and total residual chlorine may be exceeded. All State of Alaska Water Quality Standards must be met at all points outside the 100 foot radius mixing zone.

Rationale:

In accordance with State Regulation 18AAC 70.240 as amended through June 26, 2003, the department will, in its discretion, authorize a mixing zone in a discharge permit if the department finds that the available evidence reasonably demonstrates that

- a. The applicable requirements of the chapter will be met*
- b. The mixing zone will be as small as practicable*

- c. *An effluent or substance will be treated to remove, reduce, and disperse pollutants, using methods found by the department to be the most effective and technologically and economically feasible, consistent with the highest statutory and regulatory requirements.*
- d. *Ongoing compliance with 18 AAC 70.240 – 18 AAC 70.270 is a condition of any permit authorizing a mixing zone.*

In determining the 100 foot radius mixing zone size, ADEC used Best Professional Judgment to conform to parts a-d above utilizing the following information.

- *There is no current data of actual discharge flow rates from vessels, so reasonable judgment was used to determine the potential discharge flow rates from a vessel. Using these flow values and a conservative dilution ratio ADEC has determined that a 100 foot mixing zone is as small as practicable. In determining the dilution available at the edge of the mixing zone, ADEC utilized modeling performed to determine mixing zones for various domestic facilities discharging to marine waters in different waterbodies of the state and determined that a conservative dilution of 100:1 will be met at the edge of a 100 foot mixing zone.*
- *National Effluent Limitations Guidelines (ELGs) have been promulgated for the canned and preserved seafood processing point source category, as contained in 40 CFR 408. All seafood processors authorized by this permit are required to meet these ELGs thus demonstrating that an effluent or substance will be treated to remove, reduce, and disperse pollutants using methods found by the department to be the most effective and technologically and economically feasible.*

The mixing zone will ensure that the most stringent water quality standards are met at all points outside the mixing zone for:

- *Residues- May not, alone or in combination with other substances or wastes, make the water unfit or unsafe for the use; cause a film, sheen or discoloration on the surface of the water or adjoining shorelines; cause leaching of toxic or deleterious substances; or cause a sludge, solid or emulsion to be deposited beneath or upon the surface of the water, within the water column, on the bottom or upon adjoining shorelines.*
- *Dissolved Gas-Dissolved oxygen (DO) must be greater than or equal to 5 mg/l. Surface dissolved oxygen (D.O.) concentration in coastal water (up to 3.0 nautical miles from shore and inland coastal waters) may not be less than 6.0 mg/l for a depth of one meter except when natural conditions cause this value to be depressed. D.O. concentrations in estuaries and tidal tributaries may not be less than 5.0 mg/l except where natural conditions cause this value to be depressed. In no case may D.O. levels exceed 17 mg/l. The concentration of total dissolved gas may not exceed 110% of saturation at any point of sample collection*
- *Oil and Grease- There may be no animal fats or vegetable oils in shoreline or bottom sediments that cause deleterious effects to aquatic life. May not cause a film, sheen, or discoloration on the surface or floor of the waterbody or adjoining shorelines. Surface waters must be virtually free from floating oils. May not exceed concentrations that individually or in combination impart odor or taste as determined by organoleptic tests.*

- *Fecal Coliform- Based on a 5-tube decimal dilution test, the fecal coliform median MPN may not exceed 14 FC/100 ML, and not more than 10% of the samples may exceed a fecal coliform median MPN of 43 FC/100 ML.*
 - *pH- May not be less than 6.5 or greater than 8.5, and may not vary more than 0.2 pH unit outside of the naturally occurring range.*
 - *Temperature- May not cause the weekly average temperature to increase more than 1°C. The maximum rate of change may not exceed 0.5°C per hour. Normal daily temperature cycles may not be altered in amplitude or frequency.*
 - *Color-Color or apparent color may not reduce the depth of the compensation point for photosynthetic activity by more than 10% from the seasonally established norm for aquatic life. For all waters without a seasonally established norm for aquatic life, color or apparent color may not exceed 50 color units or the natural condition*
 - *Turbidity- May not exceed 25 nephelometric turbidity units (NTU). May not reduce the depth of the compensation point for photosynthetic activity by more than 10%. May not reduce the maximum secchi disk depth by more than 10%.*
 - *Total Residual Chlorine- The concentration of substances in water may not exceed the criteria shown in Table IV and in Table V, column B of the Alaska Water Quality Criteria Manual (2003), or any chronic and acute criteria established in this chapter, for a toxic pollutant of concern, to protect sensitive and biologically important life stages of resident species of this state. There may be no concentrations of toxic substances in water or in shoreline or bottom sediments, that, singly or in combination, cause, or reasonably can be expected to cause, adverse effects on aquatic life or produce undesirable or nuisance aquatic life, except as authorized by this chapter. Substances may not be present in concentrations that individually or in combination impart undesirable odor or taste to fish or other aquatic organisms, as determined by either bioassay or organoleptic tests. Table IV, Chlorine Aquatic Life Saltwater Chronic is 7.5 ug/l (micrograms per liter).*
3. The ADEC may authorize a site specific zone of deposit for each facility discharging between 0.5 and 1.0 nautical mile (NM) from shore at MLLW upon application from the owner/operator. The size and shape of an authorized zone of deposit will be defined in the authorization issued by the Department. The zone of deposit authorizes a deposit of substances on the sea floor within the area of the defined zone of deposit. All State of Alaska Water Quality Standards must be met at all points outside the authorized zone of deposit

Rationale: In accordance with 18 AAC 70.210, the Department may certify a permit that allows deposit of substances on the bottom of marine waters. In deciding whether to authorize a zone of deposit, the department will require an applicant to provide information necessary to adequately assess:

- *If there are alternatives that would eliminate, or reduce, and adverse effects of the deposit*
- *The potential direct and indirect impacts on human health*
- *The potential impacts on aquatic life and other wildlife*
- *The potential impacts on other users of the waterbody*

- *The expected duration of the deposit and any adverse effects*
- *The potential transport of pollutants by biological, physical, and chemical processes.*

In all cases, the burden of proof for providing the required information is the responsibility of the applicant. Limits of deposit will be defined in a permit certified under 18 AAC 15 which requires public notice of the proposed limit of the authorized zone of deposit in accordance with AS 46.03.110.

The Offshore Seafood Processors General Permit limits the discharge, from vessels located between 0.5-1 NM at MLLW, of fish offal to no more than 3.3 million pounds of settleable solid seafood processing waste residues per year, at a single location. A single location refers to the anchorage of a vessel within a circular area with a radius equal to 0.5 NM.

- This effluent limit is based upon an EPA WASP model of the discharge, dispersion, settlement, accumulation and decomposition of fish offal on the seafloor beneath and surrounding a discharge year, with a margin of safety equal to one-sixth of the estimated loading capacity.*
- The Proposed Offshore Seafood Processors Permit contains provisions that permittees will discharge effluents into hydrodynamically energetic waters with a high capacity for dilution and dispersion and will monitor the seafloor when applicable.*
- Discharges of settleable solid seafood processing waste residues are limited by the applicable State WQS 18 AAC 70.020(b)(20) Residues for Marine Uses . “Residues of scum, solids, debris, sludge or deposits shall not alone or in combination with other substances or wastes cause the water to be unfit or unsafe for the use, cause a film, sheen, or discoloration on the surface of the water or adjoining shorelines, or cause leaching of toxic or deleterious substances, or cause a sludge, solid, or emulsion to be deposited beneath or upon the surface of the water, within the water column, on the bottom, or upon adjoining shorelines(18 AAC 70.020(b)(20)).*

DRAFT

Signature

Date

Sharmon Stambaugh
Printed Name

Environmental Program Manager III
Title