THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF WATER
Wastewater Discharge Authorization Program

555 Cordova Street
Anchorage, Alaska 99501
Main: 907.269.6285
Fax: 907.269.3487
www.dec.alaska.gov

February 18, 2016 ADEC File: **2264.54.003**

Mr. Rocky Caldero
Silver Bay Seafoods
210 S. Harbor Dr.
PO Box 1129
Valdez, AK 99686

Re: Silver Bay Seafoods- Valdez Plant, APDES Permit No. AKG520042, Notice of Intent Receipt and Request for Additional Information

Dear Mr. Caldero:

Permit AKG520000 became effective on July 27, 2001. On October 31, 2008, the administratively extended permit transferred to DEC authority. Your unique identifier under this permit is provided above. Please use this designated number and associated DEC File number in any correspondence with or reporting to DEC.

The Alaska Department of Environmental Conservation (ADEC) has received and reviewed your updated January 19, 2016 Notice of Intent (NOI) requesting combined discharge coverage for the existing 209 S. Harbor Dr. and the new 210 S. Harbor Dr. facilities. Included in this request is the addition of a fish oil plant at the 210 S. Harbor Dr. facility. The NOI indicates most seafood processing will be transferred to the 210 S. Harbor facility, with the same proposed seafood processing waste amount requested.to be covered by APDES Permit AKG520000, the general permit for Alaskan seafood processing facilities.

DEC Seafood and Aquacultural Permitting section is aware that there is ongoing construction at your new facility for Phase II. On August 14, 2015, Silver Bay Seafoods then received conditional approval for Phase II that included constructing the sanitary sewer main extension and connection of the 210 S. Harbor drive facility non-domestic sewer system, also called the fish processing outfall into the newly constructed Phase I outfall.

DEC reminds Silver Bay Seafood, Valdez facility that final engineered As-built drawings are required to be submitted to DEC ESPR within 120 days of construction.

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Permit ID: 795.9
Facility ID: 634.5

Silver Bay Seafoods requested permit modification to decrease the seafloor monitoring for discharges under AKG520042. DEC reviewed the 2015 seafloor survey which reviewed one season's deposit size from the new Phase I outfall placement. Based on the survey finding of greater than 0.60 acres continuous deposits and indications in the dive survey that further waste deposits exist beyond the areas surveyed, and AKG520000 GP requirement that the applicant begin annual seafloor surveys (Tier 2), **DEC is denying the permit modification request for decreased monitoring at this time. Please submit a seafloor survey for 2016, to be performed within 60 days of the end of the processing season, following the survey protocol of the attached Survey Protocol in Additional Conditions and Requirements.**

Silver Bay Seafoods, LLC has administrative extended coverage to discharge seafood waste at the following site (as requested in the January 19, 2016 Notice of Intent):

Mark No.	Seafood processing waste discharge location name (Receiving Water Name or Operational Area Designation)	Latitude	Longitude
001	Port of Valdez	61.12125	-146.346783

The seafood processing waste discharged shall meet all the requirements as set out in the AKG520000 general permit including Part V.C.. Shore based Seafood Processors.

The permit includes an **effluent treatment requirement** of grinding solid seafood processing wastes to one-half inch in all dimensions before discharge, an **effluent limit** to not discharge a volume or weight of seafood processing waste residues on a daily or annual basis which exceeds the amount reported in the permittee's NOI (Permit Part V.C.1.a), a **prohibition on the discharge** of petroleum, hydrocarbons, oil and grease, and a narrative limit on the violation of Alaska Water Quality Standards (see Permit Part II). The permit requires that you develop and implement a **best management practices plan** that controls and reduces pollutant discharges at your site (see Permit Part VI.A). The permit requires that you submit an **annual report** on seafood processing activity, discharges, noncompliance, and process changes (see Permit Part VI.B).The permit requires that you conduct periodic monitoring of the sea surface, seashore, and seafloor in accordance with your type of facility (see Permit Part VI.C and D). We ask for your careful review of the various areas throughout the State of Alaska which are excluded from coverage by this APDES permit due to their characteristics as either special or impaired habitat.

Any reports of noncompliance with permit requirements shall be reported by telephone to DEC to the following location:

Department of Environmental Conservation
Division of Water
Compliance and Enforcement Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone Nationwide (877) 569-4114
In Anchorage Area/International (907)-269-4114
Fax (907) 269-4604
Email: dec-wqreporting@alaska.gov

A copy of the enclosed title page, authorization, and the APDES permit AKG520000 shall be kept at both the facility (or onboard the vessel) and at your business office.

If you have questions about the issuance of this authorization, please contact Jackie Ebert at jackie.ebert@alaska.gov or 907-465-5336. If you have questions regarding compliance with any permit or authorization requirement, please

contact Kristi Asplund at kristi.asplund@alaska.gov or 907-465-5308 for southeast locations, or Darren Stewart at darren.stewart@alaska.gov or 907-269-7550 for all other locations.

If you have questions regarding the Alaska Seafood Processors General Permit or your responsibilities under the general permit, please contact Jackie Ebert at jackie.ebert.@alaska.gov or (907) 465-5336.

Sincerely,

Clynda A. Case

Clynda A. Case

Enclosure: Authorization AKG520042
cc: Jackie Ebert, Division of Water- Seafood Permitting
Silver Bay Seafoods, - Amy VanOstenbridge, - amy.vanostenbridge@silverbayseafoods.com

Alaska Department of Environmental Conservation

Division of Water

Authorization to Discharge

AKG520042

Submit Information to:

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501

On October 31, 2008, the State of Alaska, Department of Environmental Conservation assumed authority over this permit.

AUTHORIZATION TO DISCHARGE UNDER THE
ALASKA POLLUTANT DISCHARGE ELMINATION SYSTEM FOR

Silver Bay Seafoods, Valdez Plant

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et seq., (hereafter, CWA or the Act), ***the owners and operators of the seafood processing facilities that are described in Part I of this permit are*** authorized to discharge seafood processing wastes and the concomitant wastes set out in Part II of this permit to waters of the United States, except those excluded from authorization of discharge in Part III of this permit, in accordance with effluent limitations, monitoring requirements, and other conditions set forth herein. The discharge of wastes not specifically set out in Part II of this permit is not authorized under this permit.

Upon the effective date of this permit, it is the controlling document for regulation of seafood processing wastes and other designated wastewaters in the State of Alaska discharged by authorized facilities in accordance with this permit.

This permit is effective July 27, 2001

This permit and the authorization to discharge shall expire at midnight July 27, 2006.

SIGNATURE ON FILE	December 2, 2008
Signature	Date
Sharmon M. Stambaugh	Program Manager
Printed Name	Title

A COPY OF THIS AUTHORIZATION AND THE AKG520000 PERMIT MUST BE KEPT AT THE FACILITY OR ONBOARD THE VESSEL WHERE THE DISCHARGES OCCUR.

Permit ID: 795.9
Facility ID: 634.5

APDES Permit No. AKG520042
Additional Conditions and Requirements

Seafloor Survey report. An operator shall submit a written report of the seafloor survey(s) results that describes the methods and results of the survey(s). A signed original of the survey report, as well as electronic versions of the report in Adobe Acrobat or Microsoft Word shall be submitted to ADEC. An operator required to conduct a seafloor survey shall submit the report within 60 days of completion of the survey. The survey report shall include the following information:

1. Seafood processor name.
2. APDES permit number.
3. Date, exact place and time of seafloor survey, and name(s) and telephone number(s) of the individual(s) who performed the survey.
4. Name and signature of the person who conducted the seafloor survey.
5. Method used to establish transects, locate sample stations, measure seafood processing waste depth, estimate percent cover at each station, and calculated area of seafood waste coverage.
6. Date of completion of the report, and first and last name(s) of individual(s) who performed the analysis.
7. A summary of the seafloor survey results. An example form, *Seafloor Survey: Summary Report Form*, is included as Attachment A-1.
8. Table showing seafood processing waste depth and percent cover measurements along each transect line. An example form, *Seafloor Survey: Transect Data Form*, is included as Attachment A-2.
9. Map, with scale, delineating the survey area and locations of each transect line, area of continuous (100%) seafood processing waste coverage, and outer boundary of the discontinuous coverage as it relates to the seafloor survey area.
10. Area of continuous (100%) seafood processing waste coverage and the area of discontinuous coverage, in acres to one tenth of an acre and in square meters.
11. Information on whether a seafood processing discharge was occurring during the time(s) of the survey.
12. Types and quantities of aquatic life observed adjacent to, on, in, or feeding on any seafood processing waste deposits, along with representative photos, with time and date stamp, and an indication of change from any previous observation or seafloor survey reports.
13. If seafloor surveys submitted by the operator, or other available evidence, are not sufficient to determine whether coverage exceeds an authorized zone of deposit ADEC will, in its discretion, require the operator to conduct additional surveys or other monitoring for that purpose.

ii. Signatory requirements: The seafloor survey report shall be signed by a principal officer or a duly authorized representative of the operator

Survey Protocol

Survey Purpose. The purpose of a seafloor survey is to determine compliance with water quality criteria for residues in marine waters and document the boundaries of continuous and discontinuous coverage of seafood processing waste.

Objective. The seafloor survey shall determine the depth, total area, outer boundary of continuous coverage, and the outer boundary of discontinuous coverage of seafood processing waste. The survey will use a deposition which is 0.5 inches or thicker on the bottom (seafloor) and covering more than 10% of the bottom within a 3 foot square sample plot as the minimum detection level. The seafloor survey shall determine the areal extent (reported in square feet and in acres to the nearest tenth acre) of the deposit of any seafood waste, sludge, solid, or emulsion.

Methods. The following method is approved by ADEC. An equivalent method may be acceptable if it meets the survey purpose as stated above.

Determine the number and configuration (radial or parallel) of transects which will most accurately delineate the area of seafood waste accumulation.

Establish transect lines with a surveyor's tape or other precise methodology extending seaward from permanent marker(s). Measurements should extend beyond the area of continuous coverage of seafood waste accumulation, minimum of -120' water depths, and greater depths than -120 feet mean lower low water (MLLW), if technologically feasible, may be necessary to account for areas of continuous coverage.

Surveys using **Radial Transects**: Set a central permanent marker at a suitable location. GPS coordinates derived using WAAS (Wide Area Augmentation System) technologies must be recorded at the location of the permanent marker. Establish at least five transects radially from the permanent marker. Transects should be 30º apart, extending from one side of the facility to the other. Measurement stations along each transect must be not more than 15 feet apart.

Surveys using **Parallel Transects**: Set up at least five permanent markers at suitable location. GPS coordinates derived using WAAS (Wide Area Augmentation System) technologies must be recorded for each permanent shore marker. Transects should be no more than 75 feet apart, and should extend in a perpendicular direction from the permanent markers. The number of transects should be adequate to encompass the entire area of seafood waste accumulation, and must be equal to five or more areas. Measurement stations along each transect must be not more than15 feet apart.

Determine the total aggregate area of continuous coverage by seafood waste within the survey area in water depths to -120 feet MLLW. Determine the total area of discontinuous coverage by seafood waste, within the survey area in water depths to -120 feet MLLW.

If continuous coverage extends more than 15 feet beyond and perpendicular to the lateral transects that bound the two sides of the survey area, then additional transects must be established to determine the extent of continuous coverage beyond the lateral transects. The areas of continuous or discontinuous coverage must be calculated as the area in acres enclosed by a line connecting the outermost measured points of continuous or discontinuous coverage, respectively, for that area on the transect array, or by another method approved by ADEC.

The following information must be recorded at each measuring station.

1. **Seafood waste depth.** Measure and record the depth of the seafood waste deposit using a marked stick or pipe to the nearest one centimeter. If seafood waste is visible but less than one centimeter deep, record the depth as less than one centimeter.
2. **Percent Cover.** Estimate and record the percentage (0% to 100%) of area covered by seafood waste within the immediate vicinity of the measuring station. A sampling area is measured within a three foot-square (one square yard) measuring station.

3. **Digital photographs**. Digital pictures shall be captured that depict the nature and coverage of seafood waste on the ocean bottom at representative measuring stations along transects, including all of the stations with continuous coverage (100%), and at least half of the measuring stations with discontinuous coverage (10%-99%). Pictures shall be of sufficient clarity and detail to support the observations, and should represent what was observed. Pictures shall include a digital date and time stamp. The digital photograph log shall include the name of the seafood processor, survey date, and measuring station identifier.
4. **Water depth** (adjusted to MLLW).

EXAMPLE: Calculating the area of seafood cover

The following diagram shows "typical" radial transects set 30 degrees apart. Points of measurement are at 15-foot intervals along the transects. There is continuous seafood cover in the inner area, and discontinuous seafood cover in the outer area, but the two areas easily could be reversed.

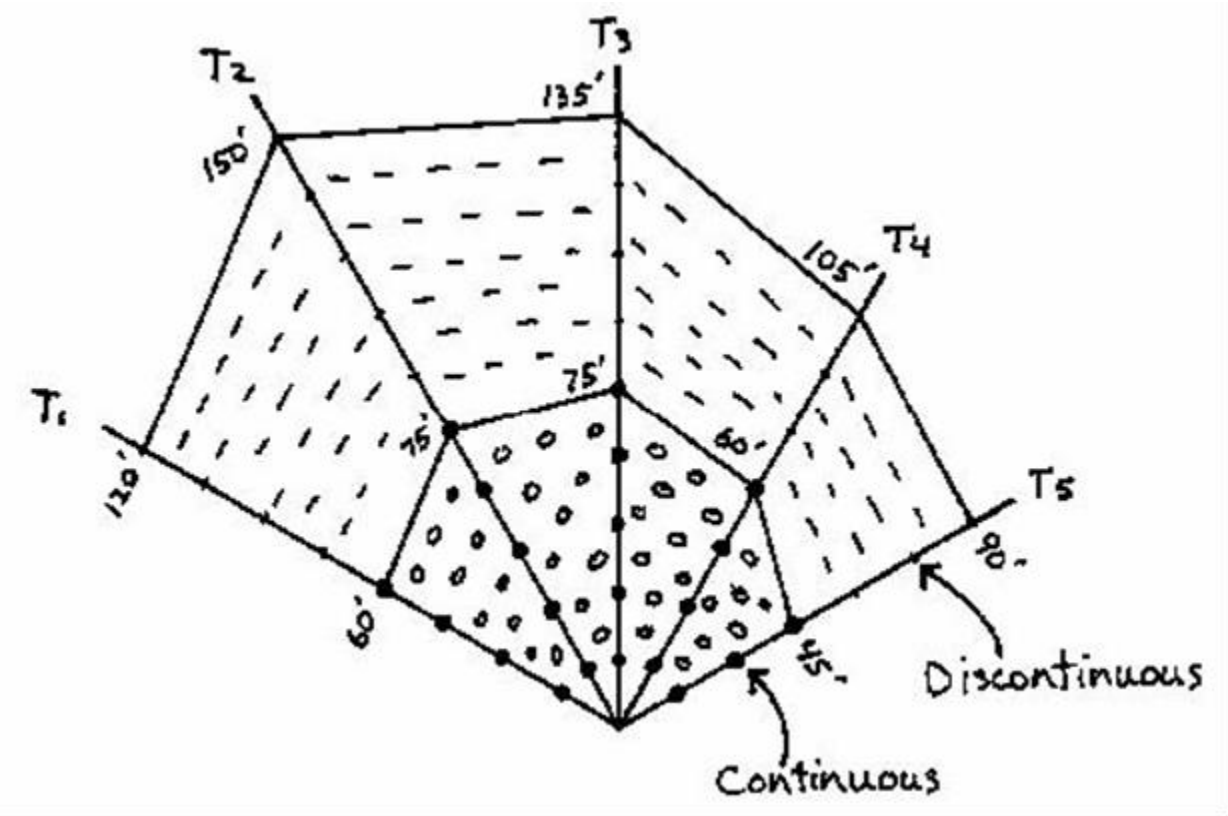

Figure 1

The <u>continuous-cover</u> area is calculated as the sum of the four continuous-cover triangles between transects.

The <u>discontinuous-cover</u> area is calculated as the sum of the four <u>total-area</u> triangles, minus the <u>continuous-cover</u> area.

Continuous cover is defined as an area of waste that is estimated to cover 100% of the ocean bottom, as measured within a three-foot square sample plot. Discontinuous cover is defined as an area of waste that is estimated to cover 10% or

more, but less than 100%, in a 3-foot square sample plot. The survey must use a deposition which is 0.5 inch or thicker on the bottom (seafloor) as the minimum detection level.

Monitoring must provide a determination of the outer boundary of the area of the waste deposited on the bottom. All areas of deposited seafood processing waste must be measured and added together to calculate the total area of deposited seafood processing waste.

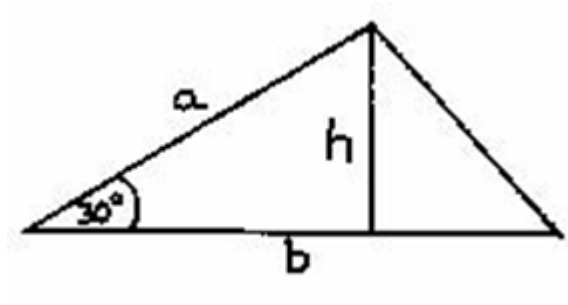

Figure 2

The formula for the area of any triangle is ***1/2 x base x height***, or ***1/2 bh***. The long side of the triangle is viewed as the base. The height is a vertical line perpendicular to the base. Fortunately, in a 30-degree triangle, the height is equal to 1/2 the length of the upper side adjacent to the 30-degree angle, or ***1/2 a***. Substituting ***1/2 a*** for ***h*** means that the area of a 30-degree triangle is equal to ***ab/4***. This makes it easy to calculate areas between transects, based on the various transect segment lengths.

h = 1/2 a Area = 1/2 bh = 1/2 b *x* 1/2 a = ab/4

In the following example, the five transects left to right are labeled as T1, T2, T3, T4, T5. The transect lengths are shown for the continuous cover area (CC) and total area (TA):

	T1	T2	T3	T4	T5
CC	**60'**	**75'**	**75'**	**60'**	**45'**
TA	**120'**	**150'**	**135'**	**105'**	**90'**

Find the CC area by calculating the area of each of the four triangles, then adding those four areas. The area of the first CC triangle is 60 x 75 / 4, or 1125 square feet. The table of calculations follows, (values are rounded to the nearest whole number).

CC Area			Total Area	
60 x 75 / 4=	1125 ft^2		120 x 150 / 4=	4500 ft^2
75 x 75 / 4=	1406 ft^2		150 x 135 / 4=	5063 ft^2
75 x 60 / 4=	1125 ft^2		135 x 105 / 4=	3544 ft^2
60 x 45 / 4=	675 ft^2		105 x 90 / 4=	2363 ft^2

Total=	4331 ft^2		Total=	15,470 ft^2

The continuous cover area then is 4331 ft^2.

The discontinuous cover area then is the total survey area minus the continuous cover area.

15,470 ft^2 - 4,331 ft^2 = 11,139 ft^2

To convert any of the areas to acres, divide by 43,560 ft^2/acre.

Continuous cover: 4,331 ft^2 / 43,560 ft^2/acre = 0.10 acre

Discontinuous cover: 11,139 ft^2 / 43,560 ft^2/acre = 0.26 acre

To convert an area to square meters, divide ft^2 by 10.76 ft^2/m^2.

Continuous cover: 4,331 ft^2 / 10.76 ft^2/m^2 = 402 m^2

Discontinuous cover: 11,139 ft^2 / 10.76 ft^2/m^2 = 1,035 m^2

A similar method can be used to calculate continuous cover if there is discontinuous cover inside of the continuous cover. The diagram would be similar to that above, but with continuous cover farther from shore and discontinuous cover near shore. In that case, calculate the inner discontinuous area, and subtract the inner discontinuous area from the total area of continuous plus inner discontinuous area. If there is additional discontinuous area beyond the continuous area (farther from shore), subtract the continuous area from the total survey area to get the sum of the inner and outer discontinuous areas.

A computer spreadsheet may be constructed to handle calculations for typical situations.

Other methods may be used to calculate area, including computer mapping, planimeter, and dot grids. The method used must be described in the seafood monitoring report to a degree that allows DEC to check the calculation.

Attachment A-1: Seafloor Survey: Summary Report Form

Operator Information	**APDES Permit Number: AKG52**
Name:	**Company:**
Address:	**Facility:**
Email:	**Fax:**
Phone:	**Waters discharged to:**
Surveyor name:	**Survey location in degrees, minutes and seconds; or decimal degrees:**
Surveyor phone:	
Diver name(s) if different from the	**Survey start date:**
Diver phone:	**Survey end date:**
Surveyor address:	**Signed survey report attached:** Yes No
Five photos of waste piles attached: Yes No	**Measurement method:**
Survey method Dive ROV CC sonar Grab Sample	**NOAA reported current direction and speed:**
Field measurement and calculation attached: Yes No	
Depth of survey at MLLW	**Disposal occurred at time of survey:** Yes No
Attached summary of findings, such as types and quantities of aquatic life observed adjacent to, on, in or feeding on the waste; sediment types; and cover observed:	**Total area of coverage:**
	Total area of continuous coverage:
Findings of change from previous surveys attached Yes	**Total area of discontinuous coverage:**
Map attached delineating survey area, area of continuous cover, and area of discontinuous cover Yes	**Maximum seafood waste pile(s) depth:**
Statement attached whether continuous cover exceeds 1 acre. Yes	

ATTACHMENT A-2

Seafloor Survey: Transect Data Form

APDES Permit Number: AKG52

Name of Operator:

Date/Time of Survey:

Distance along Transect (m)	Transect #1 SD/WD/% Cover	Transect #2 SD/WD/% Cover	Transect #3 SD/WD/% Cover	Transect #4 SD/WD/% Cover	Transect #5 SD/WD/% Cover

Notes: SD - Seafood Waste Depth

WD - Water Depth at Mean Lower Low Water

% Cover - Percent of sample area covered by seafood waste (0-100),

T - Trace amounts of seafood waste (10% or less percent cover, less than 1.27 centimeter dee

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