THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Environmental Conservation

DIVISION OF WATER
Anchorage Office

555 Cordova Street
Anchorage, Alaska 99501
Main: 907.269.6285
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January 8, 2013

Mr. Didier High
Pacific Sun Products LLC.
638 Stedman Street, PO Box 9364
Ketchikan, Alaska 99901

DEC File: 1516.54.001

Re: Pacific Sun Products, LLC. , APDES Permit No. AKG520525, Notice of Coverage and Authorization to Discharge

Dear Mr. High:

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 and on the enclosed title page of the permit. Please use this designated number and associated DEC File number in any correspondence with or reporting to DEC.

The Alaska Department of Environmental Conservation (DEC) has received and reviewed your updated November 9, 2012 Notice of Intent (NOI) to be covered by APDES Permit AKG520000, the general permit for Alaskan seafood processing facilities.

Pacific Sun Products LLC. is authorized to discharge seafood waste as specified in the November 9, 2012 Notice of Intent. The seafood processing waste discharged shall meet all the requirements as set out in the AKG520000 general permit including Part V. C. and the additional requirement of this authorization.

The permit includes an **effluent treatment requirement** of grinding solid seafood processing wastes to one-half inch in all dimensions before discharge, a **effluent limit** of less than or equal to the pounds of seafood processing waste residues per calendar year specified in the NOI, 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.

The department has both an informal review process and a formal administrative appeal process for final APDES permit decisions. An informal review request must be delivered with 15 days after receiving the department's decision to the Director of Water at the following address:

Director of Water
Alaska Department of Environmental Conservation
555 Cordova Street
Anchorage, AK, 99501

Interested persons can review 18 AAC 15.185 for the procedures and substantive requirements regarding a request for an informal department review. For information regarding appeals of department decisions follow the link:

http://www.dec.state.ak.us/commish/ReviewGuidance.htm

An adjudicatory hearing request must be delivered to the Commissioner of the Department within 30 days of the permit decision or a decision issued under the informal review process, whichever is later. An adjudicatory hearing will be conducted by an administrative law judge in the Office of Administrative Hearings within the Department of Administration. A written request for an adjudicatory hearing shall be delivered to the Commissioner at the following address:

Commissioner
Alaska Department of Environmental Conservation
410 Willoughby Avenue, Suite 303
Juneau, AK 99811-1800

Persons and organizations interested in requesting an adjudicatory hearing can review the procedures and requirements found in State Regulation, 18 AAC 15.200. For information regarding appeals of Department decisions, the following link is provided: http://www.dec.state.ak.us/commish/ReviewGuidance.htm

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, this authorization, and the APDES permit AKG520000 shall be kept at both the processing facility and company business office.

If you have questions about the issuance of this authorization, please contact Fran Roche at fran.roche@alaska.gov or 907-465-5320.

If you have questions regarding compliance with any permit or authorization requirement, please contact Honor Carpenter at honor.carpenter@alaska.gov or 907-465-5276 for southeast locations or Kara Kusche at kara.kusche@alaska.gov or 907-269-7556 for all other locations.

Sincerely,

Wade Strickland

Wade Strickland
Program Manager
Wastewater Discharge Program

Enclosure: Authorization AKG520525

Alaska Department of Environmental Conservation

Division of Water

Authorization to Discharge

AKG520525

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

Pacific Sun Products LLC. ,Ketchikan 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 GENERAL PERMIT MUST BE KEPT AT THE FACILITY WHERE THE DISCHARGES OCCUR.

Permit ID: 677.4
Facility ID: 514.3

APDES Permit No. AKG520525

Additional Requirement

1. The permittee shall conduct a sea floor survey according to a DEC approved protocol after the conclusion of the 2013 operating season. The AKG523000 seafloor survey protocol should be followed if divers are used to conduct the surveys. The survey reports shall be submitted with the Annual Report.

AKG523000– SEAFLOOR 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) 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 stated.

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, or to a water depth of -120 feet mean lower low water (MLLW), whichever is first.

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. An example *Seafood Waste Monitoring Survey/Transect Data Form* is provided as Attachment D-2 to the permit.

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.

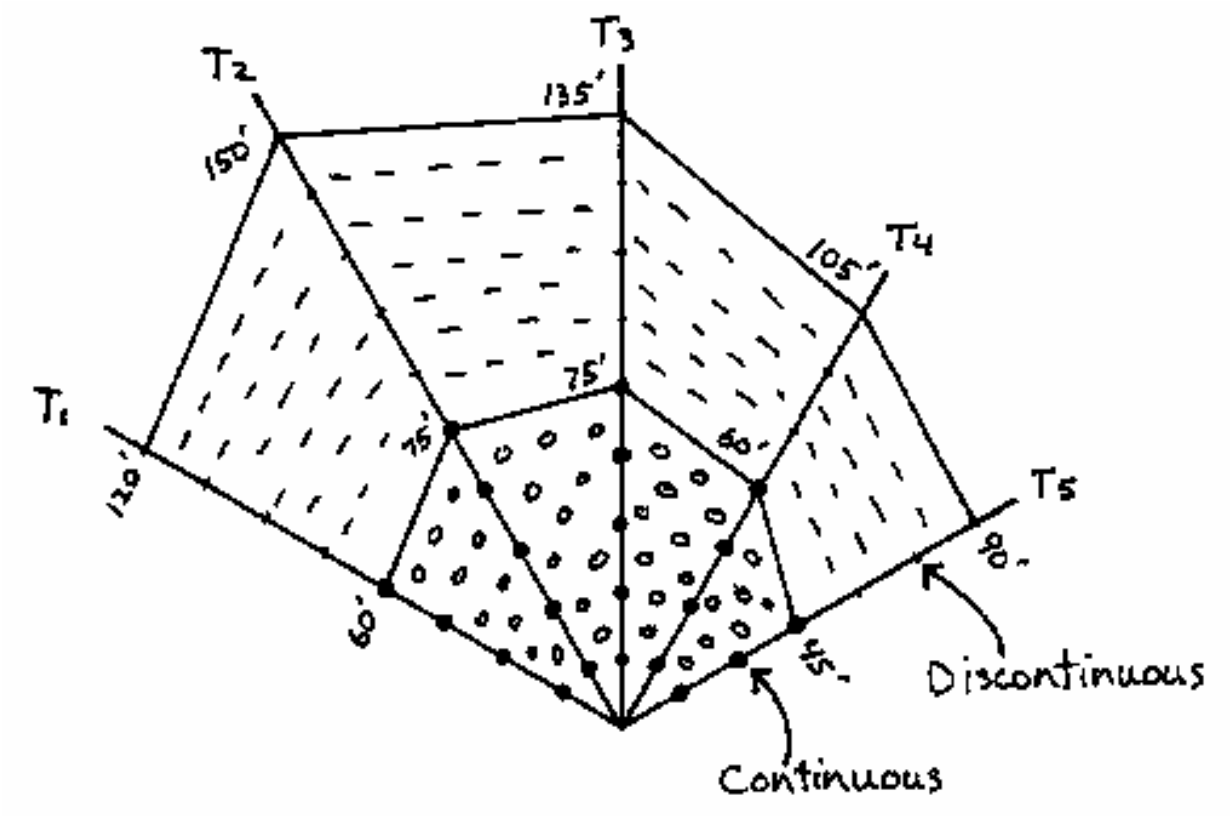

Figure 1

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

The discontinuous-cover area is calculated as the sum of the four total-area triangles, minus the continuous-cover 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 continuous and discontinuous cover of deposited seafood processing waste must be measured and added together to calculate the total area of deposited seafood processing waste.

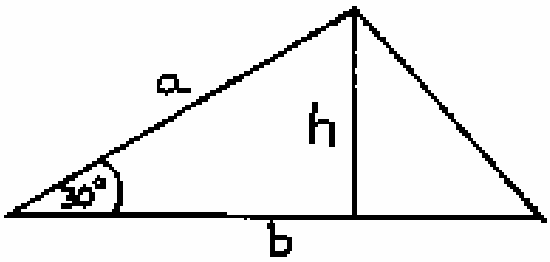

Figure 2

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 ft2 - 4,331 ft2 = 11,139 ft2

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

Continuous cover: 4,331 ft2 / 43,560 ft^2/acre = 0.10 acre

Discontinuous cover: 11,139 ft2 / 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.