

**State of Alaska - Air Operating Permit Program  
Owner Requested Limit  
Preliminary – April 27, 2016**

**STATIONARY SOURCE  
IDENTIFICATION:**

**AQ1262ORL01  
Rescinds AQ1262PL201**

<b>Stationary Source:</b>	<b>Silver Bay Seafoods - Valdez</b>
<b>Owner:</b>	<b>Silver Bay Seafoods</b>
<b>Operator:</b>	Rocky Caldero
<b>Stationary Source Address:</b>	209 N Harbor Drive
<b>City, State, Zip:</b>	Valdez, AK 99686
<b>Location:</b>	Latitude: 61.1252488 Longitude -146.343274
<b>Stationary Source Contact:</b>	Amy VanOstenbridge
<b>Phone Number:</b>	<a href="mailto:amy.vanostenbridge@silverbayseafoods.com">amy.vanostenbridge@silverbayseafoods.com</a>

The above-named owner/operator has submitted a complete request for an owner requested limit (ORL) under 18 AAC 50.225(b) for the **Silver Bay Seafoods - Valdez**. The Alaska Department of Environmental Conservation (Department) approves the ORL to restrict the stationary source's potential to emit (PTE). The ORL allows **Silver Bay Seafoods** to avoid the requirements for a minor permit. The Department certifies that the ORL is effective as of the date noted below.

In accordance with 18 AAC 50.225(f), the owner/operator has agreed to the conditions listed in this ORL.

The owner/operator may revise the terms or conditions of this approval under 18 AAC 50.225 (h)(1) by submitting a request under 18 AAC 50.225(b). The owner/operator may request the Department revoke the limit in accordance with 18 AAC 50.225(h)(2). This limit remains in effect until the Department approves a new limit or revokes it.

I understand and agree to the terms and conditions of this approval.

\_\_\_\_\_  
**Owner or Operator**

\_\_\_\_\_  
**Printed Name**

\_\_\_\_\_  
**Title**

Department approval:

\_\_\_\_\_  
**John F. Kuterbach, Program Manager  
Air Permit Program**

\_\_\_\_\_  
**Owner Requested Limit Effective Date**

**Conditions:**

**Minor Permit Avoidance Limits for NOx:**

1. **NOx Limits:** The Permittee shall avoid the requirements of a minor permit for NOx by limiting emissions from EU IDs 1 through 7 to no more than 39.9 tons per year.
2. **Operational Limits:** The Permittee shall limit the total MW-hrs from EU IDs 1 through 7 to no more than 5,655 MW-hrs in any 12 consecutive months with the following equation:

$$\text{MW - hrs} = \text{X} + 0.15 \text{ Y}$$

Where: X represents the MW-hrs generated by EU IDs 1 through 6 in a 12-consecutive month period, and

Y represents the MW-hrs generated by EU ID 7 (SCR-controlled) in a 12-consecutive month period.

2.1 Monitor as follows:

- a. Install and operate for each of EU IDs 1 through 7, a dedicated kilowatt production meter with an accuracy of +/- 1 %;
- b. Monitor and record the total daily kilowatt-hours of production for each of EU IDs 1 through 7.
- c. Before the end of each month, record the monthly power produced from each of EU IDs 1 through 7.
- d. Before the end of each month, calculate and record the combined power produced for the past 12 consecutive months for EU IDs 1 through 7 using a 0.15 multiplier for EU ID 7 (SCR-controlled), as set out by the equation in Condition 2.

2.2 Report as follows:

- a. Report in the operating report described in Condition 5, for each month covered by that report, the combined power produced for the past 12 consecutive months for EU IDs 1 through 7 using the multiplier for EU ID 7 as set out by the equation in Condition 2.
- b. Report as excess emissions as described in Condition 6, any time the limit in Condition 2 is exceeded.

3. **Selective Catalytic Reduction (SCR) Requirements.** Install, operate, and maintain a dedicated NOx control SCR system for EU IDs 7 and comply with the following:

3.1 During commissioning<sup>1</sup> of EU ID 7, the Permittee may operate without SCR activated for a maximum of 72 hours;

- a. Monitor and record as follows:
  - (i) Record the startup and shutdown times for EU ID 7 during commissioning,

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<sup>1</sup> Commissioning is the period of time after the initial startup of the emission unit and throughout testing of the engine system/equipment performance during the startup period. The period includes fine tuning of SCR/engine controls and possible run-in period of the engines.

without SCR activated.

- (ii) Calculate and record the total number of hours EU ID 7 operates during commissioning, without SCR activated.
- (iii) Report as excess emissions as described in Condition 6, any time the limit in Condition 3.1 is exceeded.

3.2 The SCR control system shall have a NO<sub>x</sub> removal / destruction efficiency of at least 85 percent as follows;

a. Monitor and record, hourly:

- (i) The temperature of the flue gas leaving the combined control equipment shall be no less than 536° F and no more than 997° F,<sup>2</sup> except during startup and shutdown.
- (ii) The pressure drop across the control equipment shall be no less than 10 inches of water and no more than 20 inches of water,<sup>2</sup> except during startup and shutdown.

3.3 Keep on site the necessary manufacturer-recommended spare parts (spray nozzles, lance, pumps, seals, switches, sensors, and solenoids), catalysts, and operation manual for the control equipment.

3.4 In case of equipment malfunction, implement manufacturer-recommended corrective actions and record:

- a. Complete description of the corrective action; and
- b. Date(s) of the corrective action.

3.5 Keep records of:

- a. All control equipment system repairs;
- b. Hourly operating parameters established in Condition 3.2a, dates and times each control equipment is started up or shut down; and
- c. System alarm logs including time and date of occurrence.

3.6 Report under Condition 6, all:

- a. Control equipment malfunctions and associated corrective actions;
- b. Operating parameters that are outside the ranges in Condition 3.2a; and
- c. Periods (starting with ending hour) during which a control equipment was not operating within the ranges established in Condition 3.2a while its associated generator was operating.

4. **Recordkeeping Requirements.** Unless otherwise specified in this authorization, keep all records required by this ORL for at least five years from the date of collection.

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<sup>2</sup> SCR temperature range of flue gas and pressure drop range across control equipment provided by Silver Bay Seafood's design engineering firm, Aggreko Process Services.

5. **Annual Operating Reports.** Submit one certified copy, of an **annual operating report** for the stationary source to the Department, Air Permits Program, 610 University Avenue, Fairbanks, Alaska 99709-3643 by February 1 for the preceding calendar year. Certify the report as specified in 18 AAC 50.205 by having the responsible official sign after the following statement, “*Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.*” Attach copies of all excess emission and deviation forms submitted to Department during the reporting period pursuant to Condition 6.
  
6. **Excess Emissions and Deviation Reports.** Report all emissions or operations that exceed or deviate from the requirements of this ORL limit as follows:
  - 6.1 In accordance with 18 AAC 50.240(c), as soon as possible after the event commences or is discovered, report emissions that present a potential threat to human health or safety and excess emissions believed to be unavoidable.
  - 6.2 Report all other excess emissions and deviations:
    - a. within 30 days of the end of the month in which the emissions or deviation occurs, except as provided in Condition 6.2b; and
    - b. if a continuous or recurring excess emission is not corrected within 48 hours of discovery, report within 72 hours of discovery unless the Department provides written permission to report under condition 6.2a.
  - 6.3 When reporting excess emissions and deviations use the Department’s notification form, located in Attachment A of this ORL and online at <http://www.dec.state.ak.us/air/ap/docs/eeform.pdf> , or provide all information called for by that form.
  - 6.4 If requested by the Department, provide a more detailed written report as requested to follow up an excess emissions report.

**Statement of Avoided Requirement:**

Consistent with the definition of “potential to emit” listed in AS 46.14.990(22), the capacity of the stationary source to emit an air pollutant is verifiable through the monitoring, recordkeeping, and reporting contained in this approval. By limiting the potential to emit of EU IDs 1 through 7 the owner/operator is avoiding the requirement to obtain a minor permit under AS 46.14.130(c) and 18 AAC 50.502(c)(1).

**Table 1 – EU inventory subject to limits**

EU ID	Unit Name	Unit Description	Model Date	Nominal Rating/Size
1	Cummins Diesel Generator	Model QSK50-G4 NR2	2011	1,479 hp
2	Cummins Diesel Generator	Model QSK50-G4 NR2	2011	1,479 hp
3	Cummins Diesel Generator	Model QSK50-G4 NR2	2011	1,479 hp
4	Cummins Diesel Generator	Model QSK50-G4 NR2	2011	1,479 hp
5	Cummins Diesel Generator	Model QSK50-G4 NR2	2011	1,479 hp
6	Cummins Diesel Generator	Model QSK50-G4 NR2	2011	1,479 hp
7	Cummins Diesel Generator with SCR	Model QSK50-G4 NR2	2011	1,479 hp

**Table 2 – Stationary source PTE**

EU ID	Unit ID Description	Operating Limits	Emission Factor Units	NO <sub>x</sub>		CO		VOC		PM-2.5/PM-10		SO <sub>2</sub>
				EF	PTE (tpy)	EF	PTE (tpy)	EF	PTE (tpy)	EF	PTE (tpy)	PTE (tpy)
1 - 6	Generator Engines	39.9 Tons Per Year	g/kW-hr	6.40	36.97	4.38	25.27	1.50	8.67	0.25	1.44	0.04
7	Generator Engine w/ SCR		g/kW-hr	0.96	2.10	4.38	9.56	1.50	3.28	0.25	0.55	0.01
<b>Total Potential to Emit (tons per year)</b>					<b>39.07</b>		<b>34.83</b>		<b>11.96</b>		<b>1.99</b>	<b>0.05</b>

**Item Description**

- A One season occurs during a 12-month consecutive period. The seasonal power demand is based on the seasonal operation of the Valdez facility and the facility’s power demands.
- B The 39.07 tpy NO<sub>x</sub> PTE is based on maximum annual hours of operation is the total power (kWh/season) divided by the maximum total engine rating (kW). This number is representative of the theoretical maximum hours of operation in the case of all 7 generators running at full capacity simultaneously, and this value should not act as an operation limit. The 6.4 g/kW-hr emission factor is based on an average of the source tested genset provided by Silver Bay Seafoods in February 2016 (with a safety factor built in).
- C All 6 operating generators, and the 1 back-up generator, are the same make and model, each with a maximum power of 1,479 hp (Continuous operation). The maximum engine rating of 10,353 hp includes all 7 generators.
- D All 6 operating generators, and the 1 back-up generator, are the same make and model, each with a maximum power of 1,130 kW. The maximum engine rating of 7,910 kW includes all 7 generators.
- E CO and VOC emissions are provided for informational purposes only.

**Attachment A. ADEC Notification Form**

<b>Silver Bay Seafoods - Valdez</b>	<b>AQ1262ORL01</b>
<b>Stationary Source Name</b>	<b>Air Quality ORL Number</b>

<b>Silver Bay Seafoods</b>
<b>Company Name</b>

**When did you discover the Excess Emissions/Permit Deviation?**

Date:        /        /        Time:        :

**When did the event/deviation?**

Begin: Date:        /        /        Time:        :        (please use 24hr clock)  
 End:    Date:        /        /        Time:        :        (please use 24hr clock)

**What was the duration of the event/deviation:**        :        (hrs:min) or        days  
 (total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

**Reason for notification:** (please check only 1 box and go to the corresponding section)

- Excess Emissions Complete Section 1 and Certify
- Deviation from permit conditions complete Section 2 and certify
- Deviation from COBC, CO, or Settlement Agreement Complete Section 2 and certify

**Section 1. Excess Emissions**

(a) Was the exceedance         Intermittent        or         Continuous

(b) Cause of Event (Check one that applies):

- Start Up/Shut Down         Natural Cause (weather/earthquake/flood)
- Control Equipment Failure         Scheduled Maintenance/Equipment Adjustments
- Bad fuel/coal/gas         Upset Condition         Other

(c) Description

Describe briefly what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance.

(d) Emission unit(s) Involved:

Identify the emission units involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

<u>EU ID</u>	<u>Emission Unit Name</u>	<u>Permit Condition Exceeded/Limit/Potential Exceedance</u>

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(e) Type of Incident (please check only one):

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Opacity %             | <input type="checkbox"/> Venting (gas/scf)         | <input type="checkbox"/> Control Equipment Down |
| <input type="checkbox"/> Fugitive Emissions    | <input type="checkbox"/> Emission Limit Exceeded   | <input type="checkbox"/> Record Keeping Failure |
| <input type="checkbox"/> Marine Vessel Opacity | <input type="checkbox"/> Failure to monitor/report | <input type="checkbox"/> Flaring                |
| <input type="checkbox"/> Other:                |  |   |

(f) Unavoidable Emissions:

- Do you intend to assert that these excess emissions were unavoidable?  YES  NO
- Do you intend to assert the affirmative defense of 18 AAC 50.235?  YES  NO

Certify Report (go to end of form)

## Section 2. Permit Deviations

(a) Permit Deviation Type (check one only) (check boxes correspond with sections in permit)

- Emission Unit Specific
- General Source Test/Monitoring Requirements
- Recordkeeping/Reporting/Compliance Certification
- Standard Conditions Not Included in Permit
- Generally Applicable Requirements
- Reporting/Monitoring for Diesel Engines
- Insignificant Emission Unit
- Stationary Source-Wide
- Other Section: (title of section and section # of your permit)

(b) Emission unit(s) Involved:

Identify the emission unit involved in the event, using the same identification number and name as in the permit. List the corresponding Permit condition and the deviation.

<u>EU ID</u>	<u>Emission Unit Name</u>	<u>Permit Condition /Potential Deviation</u>

(c) Description of Potential Deviation: Describe briefly, what happened and the cause. Include the parameters/operating conditions and the potential deviation.

(d) Corrective Actions: Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence.

Certification:

**Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.**

Printed Name: \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

Signature: \_\_\_\_\_ Phone number \_\_\_\_\_

**NOTE:** *This document must be certified in accordance with 18 AAC 50.345(j)*

**To Submit this report:**

1. Fax this form to: 907-451-2187

Or

2. Email to: [DEC.AQ.Airreports@alaska.gov](mailto:DEC.AQ.Airreports@alaska.gov)  
*if faxed or emailed,*

Or

3. Mail to: ADEC  
Air Permits Program  
610 University Avenue  
Fairbanks, AK 99709-3643

Or

4. Phone notifications: 907-451-5173.  
*Phone notifications require written follow up report.*

Or

5. Submission of information contained in this report can be made electronically at the following website:

<http://dec.alaska.gov/applications/air/airtoolsweb>

*If submitted online, report must be submitted by an authorized E-Signer for the Stationary Source.*

Signature: \_\_\_\_\_ Date \_\_\_\_\_