

**ALASKA DEPARTMENT OF ENVIRONMENTAL
CONSERVATION**

**Standard Permit Condition XI – SO₂ Emissions From
Liquid Fuel-Burning Equipment**

Permit Condition for Air Quality Permits

Adopted by Reference in 18 AAC 50.346

April 1, 2002

Revised July 22, 2020

Standard Permit Condition XI – SO₂ Emissions from Liquid Fuel-Burning Equipment

Emissions Unit or Stationary Source Categories This Condition Applies to: Any emissions unit capable of burning liquid fuel.

The Department will use Standard Permit Condition (SPC) XI in any operating permit unless the Department determines that emissions unit- or stationary source-specific conditions more adequately meet the requirements of 18 AAC 50.

Circumstances where emissions unit- or stationary source-specific conditions more adequately meet 18 AAC 50 include:

1. if an alternate monitoring plan for sulfur compound emissions has been approved for the emissions unit under a New Source Performance Standard;
2. at a petroleum refinery;
3. if an alternative monitoring plan for sulfur compound emissions is approved for the emissions unit under a construction permit.

The following applies to this standard permit condition:

The Department will include Condition 4 only in the permit for a North Slope facility that receives fuel from one of the North Slope topping plants.

Permit Wording:

Sulfur Compound Emissions Standard

1. **Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from EU ID(s) <insert EU ID numbers> to exceed 500 ppm averaged over three hours.

[18 AAC 50.040(j)(4), 50.055(c), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(1)]

Sulfur Compound Monitoring, Recordkeeping and Reporting (MR&R)

Fuel Oil¹ (EU ID(s) <insert EU ID numbers>)

2. **Sulfur Compound Emissions Monitoring and Recordkeeping.** The Permittee shall monitor and keep records, as follows:
 - 2.1 Comply with either Condition 2.1a or Condition 2.1b:

¹ Oil means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil, as defined in 40 C.F.R. 60.41b.

- a. For each shipment of fuel:
 - (i) If the fuel grade requires a sulfur content 0.5 percent by weight (wt% S_{fuel}) or less, keep receipts that specify fuel grade and amount; or
 - (ii) If the fuel grade does not require a sulfur content 0.5 wt% S_{fuel} or less, keep receipts that specify fuel grade and amount, and
 - (A) test the fuel for sulfur content; or
 - (B) obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent; or
 - b. Test the sulfur content of the fuel in each storage tank that supplies fuel to EU ID(s) *<insert EU ID numbers>* at least monthly.
- 2.2 Fuel testing under Condition 2.1a or Condition 2.1b must follow an appropriate method listed in 18 AAC 50.035 (b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).
- 2.3 If a shipment of fuel contains greater than 0.75 wt% S_{fuel} or if the results of a fuel sulfur content test indicate that the fuel contains greater than 0.75 wt% S_{fuel} , the Permittee shall calculate SO₂ emissions in parts per million (ppm) using either the SO₂ material balance calculation in *<insert cross reference to section number for SPC XII - SO₂ material balance calculation>* or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a)(3).

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]

[40 C.F.R. 71.6(a)(3)(i) & (ii)]

3. Sulfur Compound Emissions Reporting. The Permittee shall report as follows:

- 3.1 If SO₂ emissions calculated under Condition 2.3 exceed 500 ppm, the Permittee shall report in accordance with Condition *<insert cross reference to SPC III - Excess Emissions and Permit Deviation Reports>*. When reporting under this condition, include the calculation under Condition 2.3.
- 3.2 The Permittee shall include in the operating report required by Condition *<insert cross reference to SPC VII - Operating Reports>* for each month covered by the report:
 - a. a list of the fuel grades received at the stationary source;
 - b. for any fuel received with a fuel sulfur content greater than 0.5 wt% S_{fuel} , the fuel sulfur content of the shipment;
 - c. the results of all fuel sulfur analyses conducted under Condition 2.1a or Condition 2.1b and documentation of the method(s) used to complete the analyses; and
 - d. for any fuel received with a sulfur content greater than 0.75 wt% S_{fuel} , the

SO₂ emissions in ppm calculated under Condition 2.3.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]

[40 C.F.R. 71.6(a)(3)(iii)]

North Slope Liquid Fuel (EU ID(s) <insert EU ID numbers>)

4. Sulfur Compound Emissions MR&R. For liquid fuel from a North Slope topping plant, the Permittee shall comply with the following:

- 4.1 Obtain from the topping plant the results of a monthly fuel sulfur analysis;
- 4.2 Include in the operating report required by Condition *<insert cross reference to SPC VII - Operating Reports>* a list of the sulfur content measured for each month covered by the report; and
- 4.3 Report under Condition *<insert cross reference to SPC III - Excess Emissions and Permit Deviation Reports>* if the sulfur content for any month exceeds 0.75 wt% S_{fuel}.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]

[40 C.F.R. 71.6(a)(3)(i) - (iii)]