

**ALASKA DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION**

**Standard [OPERATING] Permit Condition XI – SO<sub>2</sub>  
Emissions From Liquid [OIL FIRED] Fuel-Burning  
Equipment**

**Permit Condition for Air Quality Permits  
Adopted by Reference in 18 AAC 50.346**

**April 1, 2002**

**REVISED {*adoption date of regulations*} [AUGUST 25, 2004]**

# **Standard [Operating ]Permit Condition XI – SO<sub>2</sub> Emissions from Liquid [OIL FIRED ]Fuel-Burning Equipment**

**Emissions [EMISSION] Unit or Stationary Source Categories This Condition Applies to:**  
Any **emissions unit capable of burning** [FUEL BURNING EQUIPMENT USING] liquid fuel.

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

**Circumstances where emissions [EMISSION] 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** [EQUIPMENT] 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** [EQUIPMENT] 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.** [IN ACCORDANCE WITH 18 AAC 50.055(C), THE] **The Permittee** [PERMITTEE] shall not cause or allow sulfur compound emissions, expressed as SO<sub>2</sub>, from **EU ID(s)** <insert **EU ID numbers** [IDENTIFICATION OF EMISSION UNITS]> 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 Oil<sup>1</sup> (EU ID(s) <insert EU ID numbers>)**

2. **Sulfur Compound Emissions Monitoring and Recordkeeping** [RECORD KEEPING]. **The Permittee shall comply with the following:**

2.1 The **Permittee** [PERMITTEE] shall do one of the following for each shipment of

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<sup>1</sup> **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.**

fuel:

- a. **If** [IF] the fuel grade requires a sulfur content [LESS THAN] 0.5 **percent**[%] by weight (**wt% $S_{fuel}$** ) **or less**, keep receipts that specify fuel grade and amount; or
  - b. **If** [IF] the fuel grade does not require a sulfur content [LESS THAN] 0.5 **wt% $S_{fuel}$  or less** [% BY WEIGHT], keep receipts that specify fuel grade and amount, and
    - (i) test the fuel for sulfur content; or
    - (ii) 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.
- 2.2 Fuel testing under **Condition 2.1** [CONDITION XI.2.1] 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)** [OR ANOTHER METHOD APPROVED IN WRITING BY THE DEPARTMENT].
- 2.3 If a load of fuel contains greater than 0.75 **wt% $S_{fuel}$**  [% SULFUR BY WEIGHT], the **Permittee** [PERMITTEE] shall calculate SO<sub>2</sub> emissions in **parts per million (ppm)** [PPM] using either **the SO<sub>2</sub> material balance calculation in** [CONDITION] *<insert cross reference to **section number for SPC*** [STANDARD PERMIT CONDITION] *XII - SO<sub>2</sub> 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** [PERMITTEE] shall report **as follows:**[IN ACCORDANCE WITH THIS CONDITION XI.3.]

- 3.1 If SO<sub>2</sub> emissions [ARE] calculated under **Condition 2.3** [CONDITION XI.2.3] [TO] exceed 500 ppm, the **Permittee** [PERMITTEE] shall report [UNDER] **in accordance with Condition** [CONDITION] *<insert cross reference to **SPC*** [STANDARD PERMIT CONDITION] *III - Excess Emissions* [EXCESS EMISSIONS] and **Permit Deviation Reports** [PERMIT DEVIATION REPORTS]>. When reporting under this condition [XI.3.1], include the calculation under Condition **2.3**[CONDITION *<insert cross reference to Standard Permit Condition XII - SO<sub>2</sub> material balance calculation*>].

- 3.2 The **Permittee** [PERMITTEE] shall include in the **operating** report

required by **Condition** [CONDITION] <insert cross reference to **SPC** [STANDARD PERMIT CONDITION] VII - **Operating Reports** [OPERATING REPORTS]> **for each month covered by the report:**

- a. a list of the fuel grades received at the stationary source during the reporting period;
- b. for any **fuel** [GRADE] with a maximum fuel sulfur **content** greater than 0.5 **wt%<sub>fuel</sub>** [% SULFUR], the fuel sulfur **content** of **the** [each] shipment; and
- c. for fuel with a sulfur content greater than 0.75 **wt%<sub>fuel</sub>** [%], the calculated SO<sub>2</sub> emissions in **ppm** [PPM].

[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[ – North Slope – Monitoring, Record Keeping, and Reporting].** For liquid fuel from a North Slope topping plant, the **Permittee** [PERMITTEE] shall obtain from the topping plant the results of a monthly fuel sulfur analysis.

4.1 The **Permittee** [PERMITTEE] shall include in the **operating** report required by **Condition** [CONDITION] <insert cross reference to **SPC** [STANDARD PERMIT CONDITION] VII - **Operating Reports** [OPERATING REPORTS]> a list of the sulfur content measured for each month covered by the report.

4.2 The **Permittee** [PERMITTEE] shall report under **Condition** [CONDITION] <insert cross reference to **SPC** [STANDARD PERMIT CONDITION] III - **Excess Emissions** [EXCESS EMISSIONS] and **Permit Deviation Reports** [PERMIT DEVIATION REPORTS]> if the sulfur content for any month exceeds 0.75 **wt%<sub>fuel</sub>** [%].

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

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

[THE FOLLOWING APPLIES TO THIS STANDARD PERMIT CONDITION:

THE DEPARTMENT WILL INCLUDE CONDITION XI.4 ONLY IN THE PERMIT FOR A NORTH SLOPE FACILITY THAT RECEIVES FUEL FROM ONE OF THE NORTH SLOPE TOPPING PLANTS.]