



O. Reg. 88/22: Air Pollution – Discharge of Sulphur Dioxide from Petroleum Facilities

Section 34 Quarterly Report – Q1 2024 Revision 1

Nanticoke Refinery, Imperial Oil

October 1, 2024

This quarterly report, which covers the January to March 2024 reporting period for the Imperial Oil Nanticoke Refinery, was prepared in accordance with section 34 of O. Reg 88/22. Imperial Oil is making this report available to the public in accordance with subsection 41(1) paragraph 1 of O. Reg 88/22.

As per subsection 34(2) of O. Reg 88/22 the following information is required.

1. *The date and time period of any contravention of sections 8 to 16.*

Sections 8 to 16 are not yet applicable.

2. *A summary of any measures identified under paragraph 6 of section 32 that were implemented at the facility during the quarter, their implementation dates and an assessment of their effectiveness.*

Paragraph 6 of section 32 is not yet applicable.

3. *The information required under paragraphs 1 to 3 of section 38.*

Paragraphs 1 to 3 of section 38 are not yet applicable.

4. *The records required under paragraphs 3 and 5 of section 39.*

The concentration of sulphur dioxide was not determined to exceed the values identified in paragraph 3 of section 39.

5. *The information required under paragraphs 1 and 3 of subsection 40 (2).*

The date and time of when the concentration of sulphur dioxide (SO₂) was determined to exceed the values identified in paragraph 1 of subsection 40(2) at Walpole (STN22904) are provided in Table 1.

Table 1: Date and Time of When the SO₂ Concentration was Determined to Exceed the Values Identified in Paragraph 1 of subsection 40(2) at Walpole (STN22904)

Paragraph 1 subsection 40(2) Values (parts per billion by volume of SO ₂)	Averaging Period	Date	Time
120	1 hour	January 22, 2024	21:15
200	5 minute	January 22, 2024	22:10
200	5 minute	January 22, 2024	22:15
120	1 hour	January 22, 2024	22:15
200	5 minute	January 22, 2024	22:25
200	5 minute	January 22, 2024	22:35

The discharge of SO₂ from the Nanticoke Refinery contributed to the SO₂ concentrations referred to in paragraph 1 of subsection 40(2). During the periods identified in Table 1, the Nanticoke Refinery was in an upset operating condition due to an unplanned

shutdown of the Amine Recovery Unit (ARU). Imperial Oil completed a root cause analysis for this unplanned event and based on the findings replaced the level controller on the ARU condensate pot. The implementation of this action is expected to prevent or reduce such contributions in the future.