

# Incident INCI015834 for Irving Oil Whitegate Refinery Limited Licence (P0266-03)

## Notification No: INCI015834

Submitted: 16/01/2019 14:22

### Licensee Details

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**First Name:**

Debbie

**Surname:**

Keilthy

**Address 1:**

Irving Oil Whitegate Refinery

**Address 2:**

Whitegate

**Town:**

**County:**

**Phone:**

0214622814

**Alternate phone:**

### Details

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**Description of Incident:**

*As per Schedule B.2 of P0266-03, a daily sample of WWTP emission point SW1 was taken on 03 Jan 2019 at approx. 09:00am and was submitted to an offsite laboratory for analysis. The results of this analysis were received on 15 Jan and showed a high result for Total Nitrogen. The result returned was 45.6mg/L versus a limit of 25g/L. All other results were compliant. Total flow at SW1 in the 24hrs preceding the sample was 406.1m<sup>3</sup> and therefore the mass emission for Nitrogen was 18.52kg, this is compliant with the mass emission limit of 60kg.*

**Incident Category:**

Category 1

**Approximate Start of Incident:**

02/01/2019 09:00

**First Noticed:**

15/01/2019 09:10

**Still Ongoing:**

Yes

**New or Recurring Incident:**

New

**Incident Nature:**

Breach of ELV

**Impact of Incident on Environment:**

None

**Uncontrolled Release to Receptors:**

Water

**Details of any Vulnerable Receptors:**

None

**Likely Cause:**

Other (add details)

It is believed at this time that the result is false as it is significantly higher than results seen historically, and does not line up with in-house analyses of routine plant performance monitoring samples or the retention sample from 03 Jan.

**Emission Parameters**

Parameter	Value	Date	Method
Total Nitrogen (mg/l)	45.600000000	03/01/2019 09:00	Composite

**Incident Location**

**Discharge Point:**

Yes

P0266-SW-1

**Communication**

**Informed by Telephone:** Yes

**Informed Date:** 15/01/2019 10:50

**Informed Staff Member:** Martin O'Reilly

**Informed Contact Details:** 0214875540

**Other Communications:**

**Additional Details**

**Activity in Process at time of incident:**

Feed forward to the WWTP had been shut-down at ~ 14:00 on 02 Jan until ~11:00 on 04 Jan due to a blockage at the biological reactors. High hydrocarbon loading at the API Separator Pond was also noted, which requires increased chemical addition at the DAF. Waste water was diverted to the emergency tank TK-U13 during this time. As the sample taken on 03 Jan was a composite of the previous 24hrs, a limited volume of material will have been collected, which is not representative of typical operation.

**Corrective Actions Taken:**

Action	Name	Date
The contract laboratory was contacted to confirm the result. They stated that the original sample had been retested as part of their standard procedures for an exceedance, and the result had given the same result (results were 45.25g/L and 45.62g/L)		15/01/2019 11:00
The retention sample was tested on-site for ammonia (IOW currently do not have the capability to test for total Nitrogen). This gave a result of 3.6mg/L (tested twice). Historical results were reviewed, and it was seen that ammonia typically makes up ~70% of the total nitrogen, therefore with a result of 3.6mg/L for ammonia, the total nitrogen would be expected to be ~5mg/L, or up to a maximum of 9mg/L		15/01/2019 10:20

Action	Name	Date
<p>Historical results also show total nitrogen to be consistently &lt;30mg/L, even when high ammonia levels were detected.</p> <p>All TN results since mid-Dec were &lt;20mg/L. The highest result seen in 2017 was 27.5mg/L which coincided with elevated Ammonia</p>		15/01/2019 10:30
<p>The WWTP inlet ammonia concentration, analysed daily on site as part of plant performance monitoring, was checked and showed the incoming ammonia on over the previous 5 days had been &lt;20mg/L.</p>		15/01/2019 10:30
<p>Refinery operations were reviewed, and no high volume, high nitrogen load sent to the WWTP could be identified.</p>		16/01/2019 14:00
<p>WWTP Operations were reviewed: Feed forward to the WWTP had been shut-down at ~ 14:00 on 02 Jan until ~11:00 on 04 Jan due to a blockage at the biological reactors. High hydrocarbon loading at the API Separator Pond was also noted, which requires increased chemical addition at the DAF. Waste water from the API separator was diverted to the emergency tank TK-U13 during this time.</p>		16/01/2019 14:00

**Preventive Actions to be Taken:**

Action	Target Date
<p>A portion of the retention sample stored on-site has been sent to the off-site laboratory for repeat analysis. Results are expected before 25 Jan. It is hoped this will support the assertion that the result is false.</p>	25/01/2019 00:00
<p>A further review of the issues seen at the WWTP on 02-04 Jan will be completed to determine if the high nitrogen can be attributed to this. However, similar operational issues have arisen previously with no impact on outfall nitrogen. Neither of the chemicals added at the DAF contain nitrogen.</p>	25/01/2019 00:00
<p>An update will be submitted to the Agency by 25 Jan.</p>	25/01/2019 00:00
<p>Results of analyses of the daily samples of SW1 for the days following this incident are yet to be received from the contract laboratory. These are expected on or before 18 Jan. Any further exceedances will be immediately reported to the agency as part of this incident.</p>	18/01/2019 00:00

**Likelihood of Recurrence:** Low

**Other Relevant Information**