

ITEM 5
MANAGER'S REPORT NO. 50
COUNCIL MEETING 92/07/27

TO: MUNICIPAL MANAGER 1992 JULY 22

FROM: ACTING CHIEF PUBLIC HEALTH INSPECTOR

SUBJECT: ODOUR AND NOISE COMPLAINTS - SHELLBURN REFINERY

PURPOSE: TO INFORM COUNCIL OF RECENT COMPLAINTS OF NOISE
AND ODOURS FROM THE SHELLBURN REFINERY
201 KENSINGTON AVENUE, BURNABY

RECOMMENDATION:

1. THAT this report be received for information purposes.

REPORT

1.0 INTRODUCTION:

At the regular Council Meeting held on 1992 June 29, Council requested staff investigate recent complaints from several Westridge area residents of noise and odours emanating from the Shellburn Refinery site. This report will summarize refinery activities in late 1992 June which were likely responsible for these complaints.

2.0 OPERATIONAL CHANGES AT THE REFINERY:

Staff contacted Mr. Dave Peters, Coordinator Quality and Environmental Control, Shellburn Refinery, who provided the following information relating to refinery operation and any recent complaints that may have been received.

During the week of 1992 June 21 the crude processing unit was not in operation. Under normal conditions, the "light end" products such as ethane, methane and propane are sent to the gas recovery processing unit and the crude unit for further processing. However since the crude unit was not operating, the "light end" products could not be processed as fuel gas and were therefore vented to the flare. The increased amount of product going to the flare initiated the operation of the secondary flare fan which caused some additional noise. A shut down of the secondary flare fan to reduce or eliminate any additional noise would have resulted in incomplete combustion of the flare products and concerns regarding odour. The crude unit was brought back into operation during the week of 1992 July 01. It is staff's opinion that any odour complaints that were received were likely due to overloading of the flare.

In addition, Mr. Peters stated that the Ministry of Environment, Lands, and Parks is requiring that refineries produce low vapour pressure gasoline during the summer months in an effort to reduce automobile pollutants in the lower mainland of B.C. This requirement is contained in the B.C. Gasoline Vapour Pressure Regulation. Refining of such a product produces more butane as a by-product. The butane is used to generate steam to drive the boiler turbine pumps. The boiler turbine pumps are noisier than other electrical pumps used at the site.

In order to minimize disturbance to the neighbouring residents, Shell staff use the flare at night to burn the butane and during the daytime hours use butane to generate steam to drive the turbine pumps.

Shell has been operating under normal conditions since the first week of 1992 July. However, the increased production of butane and the above-noted process to manage this product will continue throughout the summer. According to Mr. Peters, all refineries are experiencing the same problem.

In reviewing our complaint records it was noted that staff received three complaints regarding noise and odour during the week of 1992 June 21. The odour complaints were referred to the G.V.R.D. Air Pollution Control Section. The G.V.R.D. reports that they had no records of unusual odour incidents recently from the refinery and complaints received during the period in question were limited to the three we referred to them. Noise readings have indicated that the Shellburn Refinery is in compliance with the Burnaby Noise or Sound Abatement Bylaw. However in view of the change in refinery operation with respect to increased butane production, a thorough property line noise survey, utilizing our Community Noise Analyzer capable of taking continuous overnight noise readings, will be completed within the next month.

3.0 CONCLUSION:

The odour complaints received during the week of 1992 June 21 were likely related to the temporary shutdown of the crude processing unit and the possible overloading of the flare. The noise complaints received during the same period were likely related to the use of a secondary flare fan during the crude unit shutdown and the daytime use for the summer months of butane to power the boiler turbine pumps. A detailed property line noise survey, which will include nighttime readings, will be completed within the next month to confirm the Shellburn Refinery's continuing compliance with the Burnaby Noise or Sound Abatement Bylaw.

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cc: Medical Health Officer
Director Administrative &
Community Services



K.C. Johnston, C.P.H.I.(C)
ACTING CHIEF PUBLIC HEALTH INSPECTOR