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MANAGER'S REPORT NO.	56
COUNCIL MEETING	92/09/08

TO: MUNICIPAL MANAGER 1992 SEPTEMBER 01

FROM: ACTING CHIEF PUBLIC HEALTH INSPECTOR

SUBJECT: SHELLBURN REFINERY, 201 KENSINGTON AVENUE,
PETROLEUM PRODUCT SPILL ON 1991 MAY 30.

PURPOSE: TO INFORM COUNCIL OF THE CAUSE OF THE 1991 MAY 30,
SPILL AT THE SHELLBURN REFINERY, THE OUTCOME OF THE
COURT CHARGES LAID BY ENVIRONMENT CANADA AGAINST SHELL
CANADA PRODUCTS LIMITED, AND THE IMPACT OF THE SPILL ON
THE ENVIRONMENT.

RECOMMENDATION:

1. THAT this report be received for information purposes.

REPORT

1.0 INTRODUCTION:

During the regular Council Meeting on 1991 July 22, Council received, for information purposes, a report from Environmental Health Services outlining the cause of the petroleum product spill on 1991 May 30, at the Shellburn Refinery.

The report prepared by Environmental Health Services staff was based on staff's observations at the site during the time of the spill. Since Shell Canada Products Limited was concerned about charges being laid against the company, no written information on the cause and impact of the spill and the mechanisms to prevent this in the future were made available to Environmental Health Services staff.

Subsequent to this, Environment Canada laid charges against Shell Canada Products Limited for violation of Section 36(3) of the Fisheries Act. Shell Canada was found guilty of the charge and was fined the amount of \$65,000.00. The full details of the events before and after the spill were made available during the trial and in the Reasons for Judgment document prepared by the presiding judge.

2.0 REVIEW OF PETROLEUM PRODUCT SPILL ON 1991 MAY 30:

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The following information is based on staff's observations at the spill site with the inclusion of information from the details presented during the trial.

The refinery was shut down for a period of time for maintenance purposes and no oil product was being produced. The maintenance plan included removal of coke build up in the splitter unit. This involves the use of a temporary steam air decoking line which is removed or sealed after the cleaning process is completed.

On this event, however, the pipe was not sealed off when the unit was started up again at approximately 00:00 h. This resulted in an overflow of 420 barrels or 16,000 imperial gallons of petroleum product during a period of approximately two hours.

The Shell Canada Environmental Control Coordinator, Mr. Dave Peters, was advised at 02:30 h and the Coast Guard and Burrard Clean were notified by 03:00 h. A clean-up was started between 04:30 h and 05:00 h. The spill was isolated to the Shellburn dock area and was kept to the south shore area of Burrard Inlet.

The subsequent investigation revealed that:

- a) Before starting up the unit, the temporary pipe used for maintenance purposes was not sealed or removed.
- b) Although the system was checked prior to start-up, the disconnection of the pipe was not carried out.
- c) Failure of the operators in the monitoring room to scrutinize the pressure closely resulted in a delay in detecting the leak.
- d) Since the pipe connection was temporary, there was no berm present to contain any spill over.

The product that was spilled is known as "Scot Mix" and is deleterious to fish even at low concentrations. Although there are numerous types of fish found in Burrard Inlet, no oiled or dead fish were found. Recent consultations with officials at the Provincial Ministry of Environment and Environment Canada have revealed that the mitigative measures employed by Shellburn and Burrard Clean helped reduce the environmental impact of the spill such that it was found to be minimal. In addition, the beach area was cleaned up by Shell to the satisfaction of the above agencies and Environmental Health Services.

3.0 ACTIONS TAKEN BY SHELL CANADA SUBSEQUENT TO THE 1992 MAY 30 SPILL:

Discussions with Shell Canada officials, and confirmed by Environment Canada staff, revealed the following actions are being undertaken by Shell subsequent to the noted spill:

The Steam/Air Decoking Blow Down Drum was removed and relocated inside a permanent spill catchment area.

UPDATE OF SPILL AT
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The three inch diameter Steam/Air Decoking Pipe which ran underneath the roadway, connecting the Splitter Charge Unit to the Decoking Blow Down Drum has both ends capped with metal flanges.

The growth of natural vegetation has been encouraged in the area where the network of collector ditches were constructed to accumulate the oily water from the spill in the marsh area and drain into a bermed area, to maximize bank soil stability.

A temporary two stage underflow weir constructed at the base of the creek during the spill has been removed.

The creek bed was washed thoroughly to remove any residual hydrocarbons present. The creek is isolated from the refinery operating areas and is to be left in its natural state.

Shell personnel are required to conduct thorough written plant wide inspections as a part of their Loss Control Program. These inspections include all aspects of its operations as well as prevention of any potential uncontrolled discharge to the Inlet.

As a component of a Refinery Wide Waste Management/Clean-Up Program, a full-time position of Waste Management Coordinator has been established by Shell.

A comprehensive review of streamlining the Refinery's Emergency Program/Incident Command System Program has been undertaken.

4.0 CONCLUSION:

The spill at Shellburn Refinery on 1991 May 30, was rapidly contained and cleaned up. Charges laid by Environment Canada against Shell Canada for violation of Section 36(3) of the Fisheries Act resulted in Shell Canada being fined \$65,000.

Shell Canada has undertaken numerous actions subsequent to the noted spill to ensure that it does not occur again. These actions, amongst others, include a review of their thoroughness in inspectional procedures of their operations.

Recent discussions with Environment Canada and the Ministry of Environment have revealed that while there are numerous types of fish found in the Inlet, no oiled or dead fish were found as a result of the spill. In addition, the beach area was cleaned up by Shell to the satisfaction of the above agencies and the Environmental Health Services.



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

KS:KCJ:dd

cc: Medical Health Officer
Director Administrative & Community Services
Municipal Solicitor

