

ITEM 13
MANAGER'S REPORT NO. 34
COUNCIL MEETING 1983 05 09

RE: CANADIAN TRANSPORT COMMISSION HEARING ON RAILROAD TRANSPORT OF DANGEROUS GOODS
OPERATIONS AT TRANS MOUNTAIN OIL PIPELINE CO. LTD'S WESTRIDGE TERMINAL

ACTING MUNICIPAL MANAGER'S RECOMMENDATION:

1. THAT this report be received for information purposes.

REPORT

A. BACKGROUND INFORMATION

In August and September of 1982, staff reports to Council advised that the Vancouver office of the Canadian Transport Commission (CTC) had prepared a report entitled "Railroad Transport of Dangerous Goods in the Greater Vancouver Region", and that this report made a series of recommendations involving safety at a number of locations in the Greater Vancouver area. This report specifically recommended Trans Mountain Oil Pipe Line Company to take certain actions to enhance the safety of its liquified petroleum gas operation at Westridge Terminal. These recommendations and a preamble, which are found on pages 71 and 72 of the CTC report, are attached to this report for convenient reference). Council's position was that Trans Mountain should be allowed to make a presentation to the CTC at the hearing which was being held by this body in Hull, Quebec, and for the CTC to make the final decision on proposed improvements which fall within its jurisdictional authority.

Further to the above, the Burnaby Fire Department and Provincial Fire Commissioner's office have requested from Trans Mountain a commitment to implement the following three safety improvements at Westridge: (a) construction of a roadway for emergency vehicles to augment the existing single narrow lane that now serves as both access and egress; (b) installation of a security fence along the water side of the site and (c) installation of a water deluge (sprinkler type) fixed pipe extinguisher system over the entire length of the rack where tank cars are unloaded. These are local issues that can be dealt with in their entirety by the firm and the Municipality, i.e., the CTC does not become involved with matters of this nature.

B. Current Status

Following is a chronological summary of major events that have taken place:

- On 1982 September 23, Mr. D. Trevor Durrant, a spokesman for Trans Mountain, met with the Burnaby Major Emergency Planning Committee. He explained that while it is possible to put the overhead piperack underground, it would not be practicable from his company's point of view because of the cost involved ("ballpark" estimate in the amount of \$500,000) and because certain technical problems would be encountered (e.g., a culvert or other type of housing for enclosure of the pipes underground would fall below the water table). He alternatively recommended the following methods of protecting the pipelines in their existing overhead location:
 - At no cost to the Municipality of Burnaby, and within 60 to 90 days following approval of the CTC, to install:
 - An appropriate number of steel-reinforced concrete columns that will extend about eight feet above the ground level between the two vertical span supports and adjacent tracks; and
 - Approximately 1,200 feet of Jordan Guard Rail on each of the main tracks at locations that are deemed appropriate by the CP Railway and the Burnaby Fire Department (Jordan Guard Rail is a rail that runs parallel with train rails to maintain cars in an upright position if a derailment occurs).

Mr. Durrant's stated position on the overhead piperack was that the above measures, together with the maintenance of a 20 mph speed limit for all trains that pass through the Westridge property, will provide the necessary standard of safety at a reasonable cost.

With respect to improvements involving access to the site, fencing and extinguishing system, Mr. Trevor Durrant personally felt that these were reasonable requirements, but pointed out that implementation requires his management's approval.

- On 1982 October 27, Mr. Durrant personally presented his company's position on the overhead piperack to the CTC in Hull.
- On 1982 December 16, staff wrote to Mr. Durrant to request clarification on the timing with which his company intended to resolve the three local issues. Mr. Durrant advised that Trans Mountain wishes to defer implementation until after the CTC has rendered a decision on the company's proposal to protect the overhead pipe rack with a Jordan rail and impact resistant columns.

(It should be noted that the company's position is primarily based on the proposition that the Westridge Terminal may not be able to continue operating competitively if the cost of improvements cannot be recovered in the marketplace. In other words, the position is that a commitment cannot be made on the local issues until the CTC hearing has concluded at which time the company will know (a) what the total cost for all requirements will be, and (b) if it can absorb this total cost and still keep the Terminal operating profitably.

In April, 1983, a CTC bridge and structures engineer was in Vancouver on business, and while here, met with officials of the company to discuss the impact of the company's proposal to install concrete columns and a Jordan rail. At approximately the same time, a CTC economist was assigned the task of evaluating the proposal from an economic point of view. This individual was also recently in Vancouver but confined his visit to discussions with CTC staff in the Vancouver Regional office. The engineer and economist will soon be reporting their findings to the Commission in Hull.

The bridge and structures engineer has, on several other occasions, conferred by telephone with the company's consulting structural engineers on various features of the proposed design.

CONCLUSION

It appears that progress is being achieved although in a slower manner than we would like. The CTC has obviously embarked on a thorough review of the entire matter, and is apparently prepared to extend its deliberations for as long as it needs to ensure that all relevant information is obtained and examined. The company has stated that before it can make a commitment, it must know what the total cost will be for all the work, and that if all the work can be done without impairing the viability of the Westridge Terminal operation, it will proceed to do the work as promptly as possible. In any event, the CTC hearing is continuing and is expected to be concluded within the next four or five weeks. When it is concluded, we will assess what action, if any, should be taken by the Municipality regarding the roadway, security fencing and water monitoring/extinguisher system.

A further report will be submitted to Council as soon as the hearing in Hull is concluded.

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EXCERPT FROM A REPORT ENTITLED "RAILROAD TRANSPORT OF DANGEROUS GOODS IN THE GREATER VANCOUVER REGION"

"4.3 Trans Mountain Oil Pipeline Company
Westridge Terminal - Mile 121 Cascade Subdivision, CP Rail

Located on Burrard Inlet, this facility is bisected by CP Rail's double-track Cascade Subdivision. Liquefied Petroleum Gas is unloaded from tank cars on the water side of the track and pumped over the railway to storage facilities built on the hillside above. Once each month LPG is pumped back over the tracks to a large ocean-going vessel for export to Japan.

The hazards which are perceived to exist at this location are not so much related to population density, although it is estimated some 1,000 to 2,000 people reside within a 2000 ft. radius of the facility, rather the concerns relate to:

- (a) the magnitude of the quantities involved. The ocean tanker loads 8 million gallons in a 24 hour period. The overhead pipeline on such occasions is accommodating 350,000 gallons per hour;
- (b) the kinds of exposure involved - 16 hours per day LPG is being pumped in lines which are in an exposed position;
- (c) Proximity to rail operations. Overhead lines are supported on trusswork located immediately adjacent to the main track. Tank cars unloading is also being undertaken on a more or less continuous basis adjacent to the same main tracks.

The following recommendations are therefore suggested with respect to the Westridge Terminal:

Recommendation 9

Trans Mountain Oil Pipeline Company be requested to indicate why the supporting structures for the overhead LPG pipelines at Westridge cannot be eliminated within 50 feet of the centre line of the two existing main tracks. (If, after such modification the lines remain overhead, existing vertical clearances to be maintained). It is suggested that if such changes cannot be completed by December 31, 1983, the Committee consider ordering the discontinuance or rail service to the plant.

Recommendation 10 That CP Rail be ordered to impose a further reduction in train speed at the above noted location. Speed to be restricted to 10 miles-per-hour until such time as the modifications noted in recommendation (9) above are completed, at which time an application for review will be entertained."

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NOTE:

The above-mentioned report was prepared by the Pacific Regional Office of the Canadian Transport Commission.

