

ITEM 9
MANAGER'S REPORT NO. 48
COUNCIL MEETING 1982 08 23

RE: REPORT OF THE RAILWAY TRANSPORT COMMITTEE ON:

- a) RAILROAD TRANSPORT OF DANGEROUS GOODS IN THE GREATER VANCOUVER AREA; AND
- b) OPERATIONS AT SPECIFIC SITES INCLUDING TRANS MOUNTAIN OIL PIPELINE LTD'S WESTRIDGE TERMINAL

ACTING MUNICIPAL MANAGER'S RECOMMENDATION:

1. THAT the recommendations of the Director-Fire Services be adopted.

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FIRE DEPARTMENT
1982 AUGUST 13.

TO: MUNICIPAL MANAGER
FROM: DIRECTOR - FIRE SERVICES

SUBJECT: REPORT OF THE RAILWAY TRANSPORT COMMITTEE ON:
a) RAILROAD TRANSPORT OF DANGEROUS GOODS IN THE GREATER VANCOUVER AREA; AND
b) OPERATIONS AT SPECIFIC SITES INCLUDING TRANS MOUNTAIN OIL PIPELINE LTD'S. WESTRIDGE TERMINAL

RECOMMENDATIONS:

1. THAT with respect to Trans Mountain Oil Pipeline Ltd's. Westridge Terminal:
 - a) The overhead pipe lines crossing the CP main tracks be placed underground;
 - b) A *Jordan guard rail be installed on the main tracks adjacent to the two spur lines;
 - c) The current speed limit of 20 mph be retained if a Jordan Guard rail is installed, but if not installed, that the speed limit be reduced to 10 mph;
 - d) If such changes cannot be completed by 1983 December 31, the Canadian Transport Commission consider ordering the discontinuance of rail service to the plant as proposed in the Railway Transport Committee's report; and
2. THAT Council endorse the preparation of a Transportation Plan relative to the movement of hazardous materials subject to the understanding that potential funding assistance be pursued in accordance with terms as contained in the Rail Relocation and Crossing Act.

* An extra track rail running parallel with the rails in service to maintain the cars in an upright position if derailed.

Terminology: CPR = Jordan Rail
CNR = Guard Rail

A. SUMMARY

119

The Regional Manager for the Canadian Transport Commission (CTC) forwarded to this Municipality a copy of a report entitled "Railroad Transport of Dangerous Goods in the Greater Vancouver Region", and requested that any comments pertaining to the content be referred to the Railway Transport Committee which was struck by the CTC to review, among other things, the implications of railway transportation in our area. The report, a copy of which is available for viewing in the Manager's Department, provides an assessment of local rail handling of hazardous materials from an overall perspective, and serves as a focal point for discussion and comment. Formal adoption of specific orders and recommendations by the Commission is expected after all appropriate bodies have concluded their deliberations.

The report states that Trans Mountain Oil Pipe Line Company should take certain actions to enhance the safety of its liquified petroleum gas operation at Westridge Terminal. No other Burnaby operations were mentioned and this Council report will therefore address itself to only this specific site and operation, and in a broader sense, to implications of a regional nature.

The Burnaby Major Emergency Planning Committee, which is comprised of representatives from Police, Fire, Engineering, Health and the Manager's Office (and in this ad hoc review a resource person from Planning), studied the CTC report, inspected the Westridge site and met on two occasions to prepare the recommendations that appear in this report for Council.

B. LIQUIFIED PETROLEUM GAS FACILITY
TRANS MOUNTAIN OIL PIPE LINE COMPANY'S WESTRIDGE TERMINAL
BURRARD INLET

Trans Mountain Oil Pipe Line Ltd. owns and operates a marine terminal on Burrard Inlet at Westridge in Burnaby (Attachment "A"). This facility was originally designed for loading tankers with crude oil but was converted to LPG in 1965. The first oversea shipment of this product was made one year later. At this time shipments are made approximately once each month to Japan.

This facility, which contains two double-walled insulated tanks each of 175,000 barrels of liquified propane capacity, is located south of the Canadian Pacific main line. These tanks are connected by a series of pipes, mounted on an overhead rack (Attachment "B") which during pumping operations carry liquid propane from these tanks at the rate of approximately 350,000 gallons per hour, over the CP tracks to an ocean-going tanker loading berth located on the waterfront.

In addition to supporting the piping to the tanker loading facilities, the pipe rack extends to the railway tank car unloading area which comprises two spur lines adjacent to the main tracks at a distance of 53 feet 6 inches, center line to center line. These spur lines are each designed to accommodate a seven-car-spot unloading rack with pumping facilities equipped to handle seven cars per eight-hour shift (25,000 gallons per car). This means for sixteen hours per day, propane tank cars are being unloaded in close proximity to the main rail track which, as noted, is located approximately 53'6" away. So at any given time there may be 14 cars present on the spur lines with a combined capacity of 350,000 gallons of LPG, unloading through the pipe rack into two storage tanks located across the main CP lines, these having a total capacity in excess of 12 million gallons of LPG.

It is with the foregoing knowledge and information, and notwithstanding the safety record of Trans Mountain Oil Pipe Line's Westridge Terminal, that the corrective actions as contained in the recommendations are submitted to Council for approval.

C. COMMENTS ON THE RECOMMENDATIONS

With respect to the Westridge Terminal, there is some similarity between the recommendations in this report and the recommendations in the Railway Transport Committee report. The main differences are that this report to Council more strongly expresses the need for the overhead pipelines to be relocated underground, and further, that a reduction in the train speed from 20 to 10 MPH would not be necessary if a Jordan Guard Rail were installed on the main tracks adjacent to the spur lines. For comparison purposes, following are the two recommendations in the Committee report on Westridge Terminal:

"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 of rail service to the plant.

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 above are completed, at which time an application for review will be entertained."

Council is also requested to endorse the Committee's following recommendation which, if adopted by the CTC, would result in benefits to Burnaby and all other municipalities in the lower mainland:


"That consideration be given to the preparation of a Transportation Plan relative to the movement of hazardous materials with particular reference to the framework provided by The Railway Relocation and Crossing Act as a vehicle for the development of a transportation corridor with appropriate supporting facilities."

The latter recommendation is particularly appropriate in view of the constant and considerable volumes of hazardous goods that enter our region by rail, e.g., during a six month period in 1981, 11,020 carloads were recorded in the metropolitan area (including 3,589 liquified petroleum gas and 124 explosives and related hazardous products). Of that total, 6,425 carloads arrived via the CP Rail Coquitlam Yard and 4,141 moved into CN Rails Thornton Yard near the Port Mann bridge.

CONCLUSION

The Railway Transport Committee's report provides a valuable overview as to the large quantities of dangerous goods being transported within the Lower Mainland, resulting from which are explicit recommendations. These recommendations, if enacted, will reduce significantly the potential dangers to the citizens of Burnaby and the adjacent communities from the transportation by railroad of dangerous goods.

By way of further information, the movement of dangerous goods is expected to become better controlled and safer for all concerned as the result of actions by the senior governments and, on the local level, the GVRD municipalities. With respect to the former, the Federal Government's Bill C-18 is expected to become law in the near future. When enacted, this comprehensive regulation will cover the handling and movement of dangerous goods by all modes of transportation throughout Canada (among the requirements are placarding of conveyances and appointment of inspectors). Further to this, representatives from all municipalities in the GVRD in September will begin deliberations on how to best deal with the matter on an intermunicipal basis.


T. G. Mairn
DIRECTOR - FIRE SERVICES

TGN:bp
Attachments (2)

C.C. R.C.M.P.
Planning & Building Inspection Department
Engineering Department
Health Department
Administrative and Community Services Department

ITEM	9
MANAGER'S REPORT NO.	48
COUNCIL MEETING	1982 08 23

121

ATTACHMENT "A"
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3.3 SERVICES TO MAJOR INDUSTRIES

Trans Mountain Oil Pipeline Company vicinity Mile 121
Cascade Subdivision, CP Rail, Burnaby

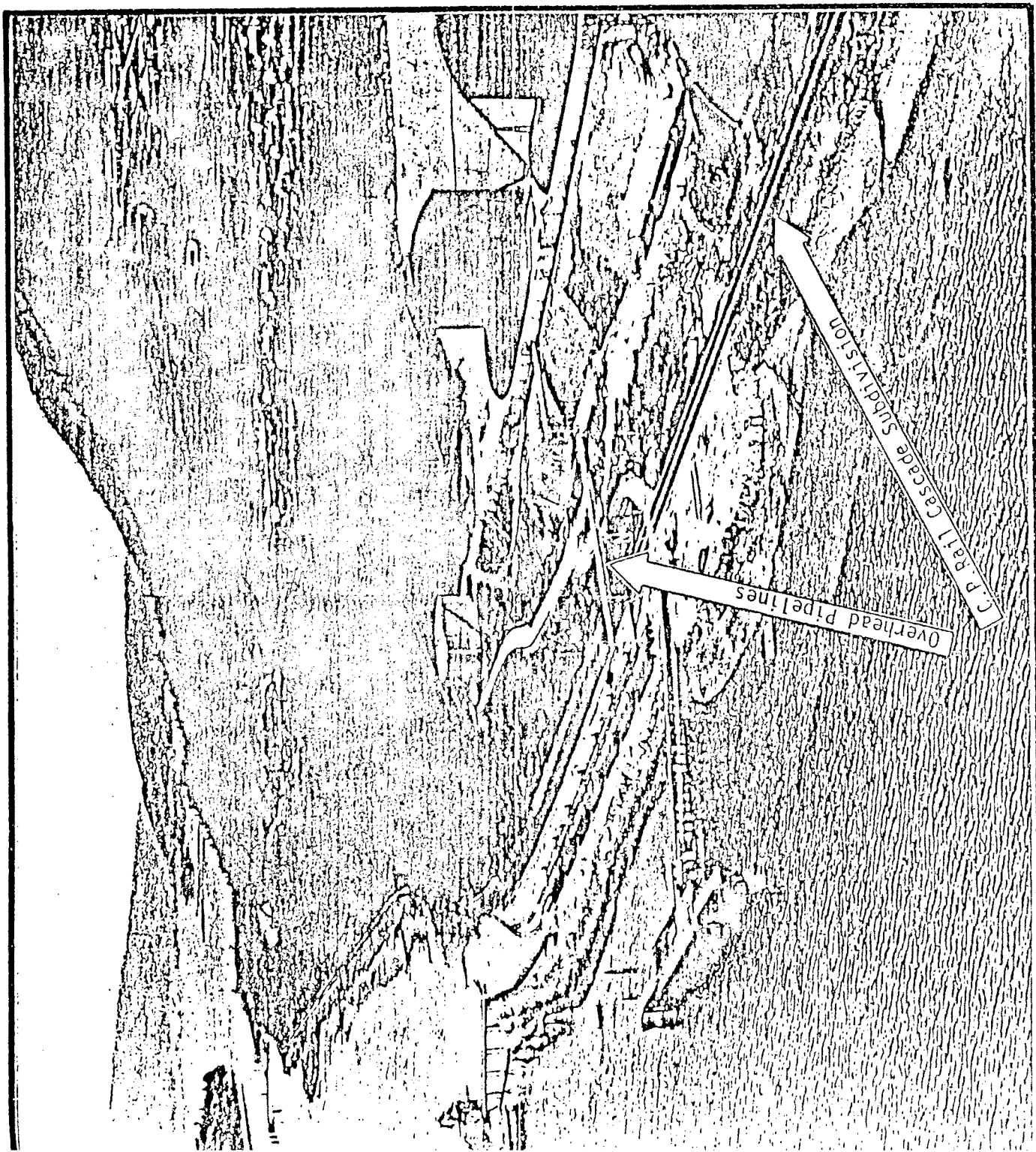


Figure 12: Westridge Terminal - Liquefied Petroleum Gas export facility on Burrard Inlet, Burnaby, B.C.

ITEM

9

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ATTACHMENT "B"

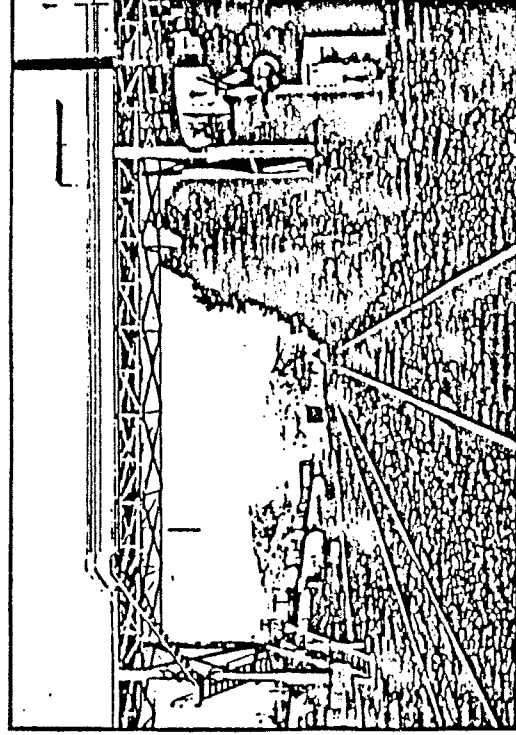
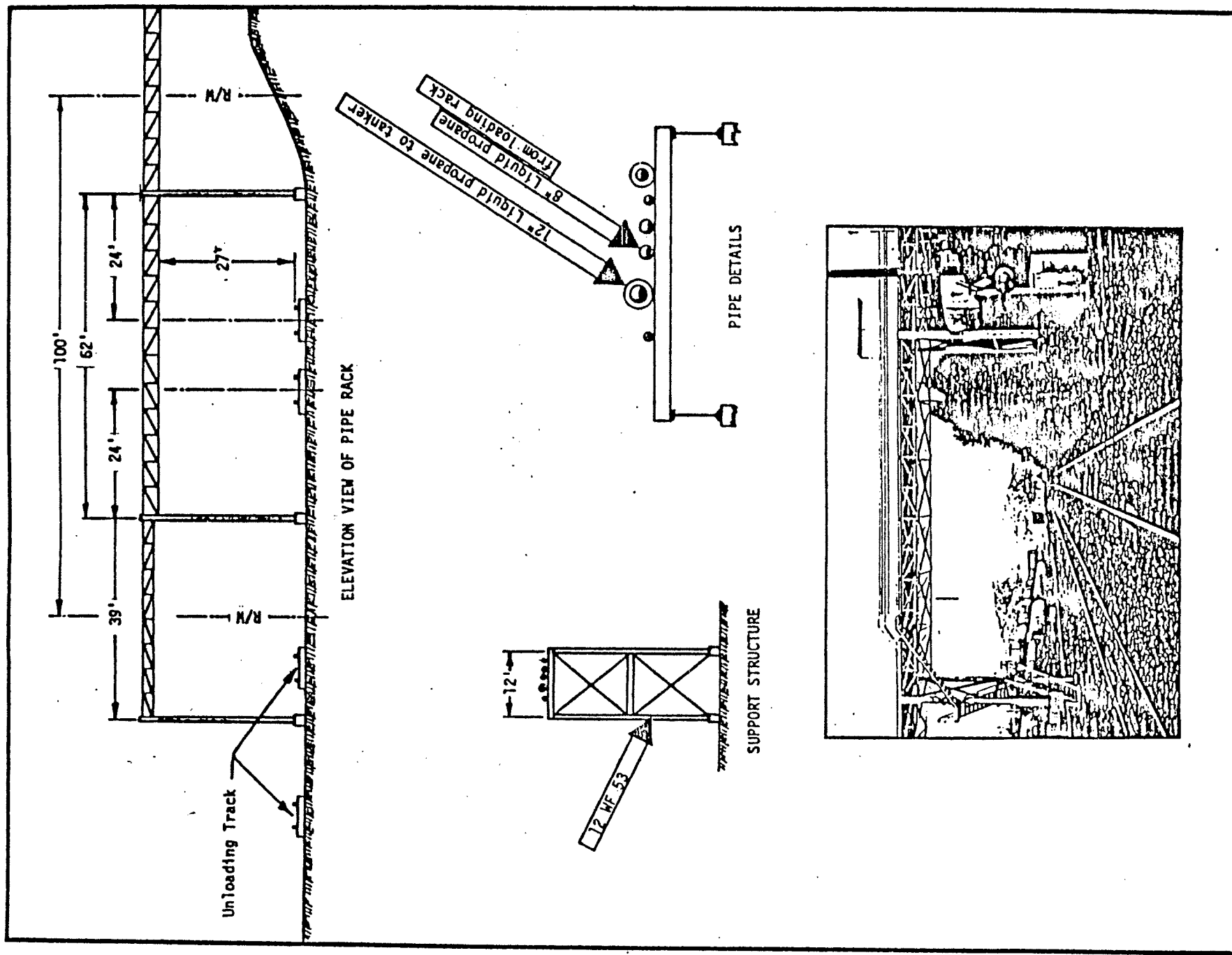


Figure 14 Details of Westridge Terminal pipe rack

