

ITEM 31

MANAGER'S REPORT NO. 92

COUNCIL MEETING Dec. 10/73

31. Re: Proposed Chevron Refinery Expansion Program

The following report from the Director of Planning contains clarification on two aspects of the proposal by Chevron Canada Limited to modernize its petroleum refinery facilities in North Burnaby.

RECOMMENDATIONS:

THAT copies of this report be sent to those individuals and organizations which have expressed interest in the matter; and

THAT it be agreed that Chevron Canada Limited will pay any costs involved in the retention of a consultant to analyze and check monitor data to verify compliance with the appropriate standards during any "interim period" which might develop.

* * * * *

PLANNING DEPARTMENT
DECEMBER 7, 1973

SUBJECT: PROPOSED CHEVRON REFINERY EXPANSION PROGRAM
MASTER PLAN

BACKGROUND

On November 26 a report accompanying Chevron Canada Limited's expansion proposal was presented to the Municipal Council for consideration. Discussion on the topic was deferred until the meeting of December 10 to allow time for thorough examination of the material by the members of Council, and in the interim, pertinent background material has been made available to individuals and citizen groups in the area who have expressed interest.

The following information pertains to two specific aspects of the matter under consideration on which further clarification might be helpful.

A. Oil Spill Protection and Procedures

Your staff have requested explicit information from the oil company concerning measures and practices designed to prevent oil spills from sources both on the land and from marine loading operations, and concerning contingency procedures and equipment or materials maintained to deal with possible emergencies. In view of the terrain and the susceptibility of adjacent Burrard Inlet waters to damage from such upsets, this is felt to be a matter of grave concern and a high degree of protection to ensure against such tragedy must be observed.

The attached correspondence dated December 5, 1973 has been received from Mr. T. S. Bremner, Vice-President and Refinery Manager in response to our enquiry. The contents express the Company's concern regarding the matter, and outline the physical safeguards proposed as part of the expansion project together with procedures presently in effect and contingency plans to deal with spills at the Chevron Refinery, including reference to the Burrard Inlet Oil Spill Co-Operative Plan.

Summarized briefly, the surface runoff water in Areas I and II, and hence any spilled oil or product, is impounded by a system of earthen berms and channels which divert the liquid to collection points. From these points, the material is processed through a two-stage de-oiling system before discharge to the Inlet. The section entitled "Water Quality" in Chevron's proposal elaborates on the process and the new equipment to be installed, and describes the proposed 30,000 barrel fore-shore basin intended as a final point for removal of traces of oil in the discharge from Area I as well as the pipeline interceptor/holding pond/sensor system proposed to safeguard against damage from pipeline leaks in the Confederation Park Area.

The correspondence also deals with the regulations which are complied with during transfer of oil products at the company wharf. As noted in the expansion proposal, the Company no longer operates coastal tankers, but rather uses barges for marine transport; hence there is no ballast water problem. A copy of the prescribed procedures is attached for reference.

The Oil Spill Contingency Plans are outlined briefly in Mr. Bremner's letter. The attachment to which reference is made runs to some 48 pages, including both Instruction #300 (Chevron Burnaby Refinery Oil Spill Contingency Plan) and Instruction #301 (Burrard Inlet Oil Spill Co-Operative). Owing to the length of the material, it has been reproduced as an attachment only to the Council members' copies of this report; however, copies can be made available to members of the public on request at the Planning Department. The information describes in detail the established procedures, the roles and responsibilities of specific refinery personnel in dealing with a spill situation, the materials and equipment kept on hand at the refinery, and the outside resources that are available (both private companies and the other participating members of the Oil Spill Co-Operative -- Gulf Oil Canada Limited, Imperial Oil Enterprises Limited, Shell Canada Limited, and Texaco Canada Limited).

From the information provided by the Company, it is evident that physical measures exist and are proposed to be improved in the expansion program, for preventing land-based spills from reaching tidewater, and that procedures have been established for dealing with emergency situations.

B. Status of 'Local' Environmental Control Regulations and Monitoring

Some explanatory notes on the present status of the air and water quality standards for petroleum refineries being prepared by the Provincial and Federal Governments are given for the information of Council.

The Pollution Control Branch in Victoria has submitted to the Pollution Control Board for adoption what it expects to be the final draft of its "Provincial Petroleum and Chemical Industry Objectives". Senior personnel in the agency indicated that adoption or final amendment and adoption by the Board is expected imminently, possibly within a matter of weeks. The Greater Vancouver Regional District is to be the permitting and enforcement authority, and it is still expected that compliance with Level "B" standards will be required in the case of the Chevron refinery. Under these proposed standards for air and water quality, the Company will be expected to conduct a monitoring program using methods approved by the Pollution Control Branch, and to provide complete test data and flow measurements to the permitting authority on a regular periodic basis (four or six times yearly). The Branch maintains a staff of inspectors and equipment and is to verify the submitted data on a spot check basis to ensure continuing compliance with the terms of the permit as issued.

The Federal regulations concerning liquid effluents from refineries have now been established and published (Canada Gazette, November 3, 1973). These standards take the form of regulations as they affect new refineries, and guidelines as they are applied to existing plants. The Chevron Burnaby refinery will be expected to satisfy the latter, and the Company has agreed in its submission to make provision in its expansion for treatment facilities "in order that the refinery liquid effluent will meet senior government requirements prior to final discharge to... Burrard Inlet" if effluents are in fact discharged to that body of water. Again, the Department of the Environment will require periodic data reports to be submitted by the Company to verify compliance, and these data will be checked periodically by Government monitoring at the plant.

At present, Federal regulations respecting air quality standard appear to be some time from completion, and no definite information is available.

At the moment, there are indications that the Provincial controls concerning water quality will be generally more stringent than the Federal guidelines, and hence will take precedence. Control will be effected through the permit system as indicated above.

Concerning air quality standards, it is not known at this time whether the Provincial objectives in specific will be higher than the Bay Area Air Pollution Control District standards, or the reverse. In any event, it will be recalled that Chevron is committed to meet the local or Bay Area standards, whichever is the more restrictive. In order to ensure that a suitable monitoring program is carried out during a possible interim period which might occur if the expanded plant, subject to approval, were to be "on stream" prior to the monitoring services of the regulating agencies becoming operational, it is recommended that the Company be required to make provision for bearing the cost of retaining a competent consultant to analyze and check data to ensure compliance. We understand that the B.C. Research Council and at least one local engineering/analysis firm are equipped and experienced to handle this type of commission.

RECOMMENDATION

It is recommended that:

- a) the foregoing be received by Council for information,
- b) copies of this report be sent to those individuals and organizations which have expressed interest in the matter, and
- c) that it be agreed that Chevron Canada Limited will pay any costs involved in the retention of a consultant to analyze and check monitor data to verify compliance with the appropriate standards during any "interim period" which might develop.

Respectfully submitted,


A. L. Parr,
DIRECTOR OF PLANNING.

AP
DGS:cm

Attach.

Chevron



T.S. Bremner
Vice-President & Refinery Manager

Chevron Canada Ltd.

Head Office: 355 Burrard Street, Vancouver 1, B.C.
Refinery: 355 North Willingdon Avenue, Burnaby 2, B.C.

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COUNCIL MEETING Dec. 10/73

December 5, 1973

File: 300.212

Mr. A. L. Parr
Director of Planning
The Corporation of the District of Burnaby
Municipal Hall
4949 Canada Way
Burnaby 2, B. C.

Dear Sir:

Re: Proposed Burnaby Refinery Expansion

We wish to acknowledge your letter of November 28, 1973, respecting precautionary measures and contingency plans available to safeguard against possible oil spill mishaps at the Burnaby Refinery.

Perhaps the best way to treat this subject is to briefly summarize the material contained in our presentation submitted to Council on November 26, 1973, review the matter of the loading and unloading of marine vessels at our wharf, and comment on the salient points of current oil spill contingency plans.

(A) Expansion and Modernization Presentation

The matter of oil spills or leaks is covered in the "Water Section" of our Presentation.

Specifically we propose -

- installation of underground drain tile on the north side of the pipeway that connects the two sections of the refinery (Area 1 being the tank farm and Area 2 the process section.)
- construction of a holding pond containing an infra-red oil sensor in a portion of the 5.7 acre parcel immediately east of Willingdon Avenue.

Should a leak ever develop in the pipeway, these facilities would place us in an excellent position to control the situation and minimize any risk of oil spreading into Burrard Inlet.

... 2.

Mr. A. L. Parr

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- construction of a basin on the foreshore of Burrard Inlet immediately to the west to our wharf.

This basin will be a safeguard against the discharge of oily water into Burrard Inlet in the event of an upset in our two stage deoiling system. In addition, it will provide a secondary line of defence against the possibility of oil entering Burrard Inlet from the upland. Our first line of defence of course is the earthen berm fire walls that are now in place in the tank farm. Such facilities form an integral part of tank installations.

This summarizes both the present and proposed measures designed to minimize the event of an oil spill or leak at the refinery.

(B) Loading and Unloading of Marine Vessels

Attached is a copy of Company Form No. Mfg. 5017 pertaining to Oil Pollution Prevention Regulations issued pursuant to the Canada Shipping Act. These regulations are complied with during transfer of products at our wharf. Either the Ship's Officer in Charge or Bargeman as well as either the Shore Supervisor or First Operator sign the form to verify compliance with the prescribed procedures.

Nine of the ten coastal barges receiving product at our dock are equipped with spill plates to guard against spillage into Burrard Inlet. The plate consists of a steel shield approximately 18" high affixed to the perimeter of each barge. The remaining barge will be also equipped with this protection by the end of the year.

(C) Oil Spills Contingency Plans

(1) Attached Refinery Instruction #300 comprising some 27 pages is the oil spill contingency plan in effect at the refinery. Its purpose is -

- (i) To establish an organization for the containment and clean up of an oil spill.
- (ii) List company equipment available and its location.
- (iii) List sources of rental equipment, supplies and contractors.

A complete inventory of equipment and materials available at the refinery together with the names, telephone numbers of outside emergency service contracts forms an integral part of the plan. Our equipment includes a 25 ft. Sea truck powered barge, 2200 ft. of boom, skimmer, etc.

A continuing on-the-job training program is an integral part of this Plan.

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Mr. A. L. Parr

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- (2) Attached Refinery Instruction #301 is a copy of the Burrard Inlet Oil Spill Co-Operative Plan. The purpose of this plan is to provide an inventory of oil spill equipment available at refineries and marketing terminals on Burrard Inlet and list of contact personnel.

We trust this explanation together with the above attachments will document both our concern and courses of action on this important subject.

Yours truly,


T. S. BREMNER

Attach.

OIL POLLUTION PREVENTION - CANADA SHIPPING ACT

Every tanker and loading or unloading facility in Canada must comply with the Canada Shipping Act - Oil Pollution Prevention Regulations dated September 21st, 1971.

The owner of the loading or unloading facility must appoint a person to be in charge of that facility as shore supervisor, who, together with the officer in charge of the operation on board ship, must ensure that:

- a) Blank flanges are TIGHTLY fitted to all cargo and bunker manifolds not in use.
- b) All overboard discharges are tightly closed and sealed.
- c) All deck scuppers are tightly plugged on all decks where a cargo or bunker spill could occur.
- d) Drip trays and an adequate supply of saw dust are in position at the manifold and hose connections.
- e) The flexible hoses in use are adequately supported and protected against damage from ship movement.

The shore supervisor and ship's officer in charge of the operation shall establish between them the procedure to be followed and the limitations to be imposed with regard to:

- a) The Signals for Standby to Start; Start; Reduce the Flow Rate; Standby to Stop; Stopping; Emergency Stopping.
- b) The maximum allowable pressure and flow rate.
- c) The time required to stop.
- d) The tank topping period.
- e) Giving at least 15 minutes notice of intention to stop.

The shore supervisor and ship's officer in charge will ensure that their own respective facilities are adequately and suitably manned with personnel fully familiar with the preceding requirements and procedures who will ensure compliance with such requirements and procedures throughout the transfer operation, and who will further ensure that:

- a) The vessel remains properly moored alongside.
- b) Valves are not closed against the liquid flow pressure.
- c) The transfer rate is reduced when topping tanks.
- d) Close attention is paid to the liquid level in the tanks.
- e) The operation stops if a leak develops.
- f) No tank cleaning or gas freeing operations are carried out.
- g) No ballast is pumped overboard.

Nothing in the above shall, in the event of any emergency related to this transfer operation, prevent:

- a) The Master of the ship
- b) The Officer in charge of the transfer operation for the ship or
- c) The person in charge of the transfer operation at the
i) loading facility, or ii) the unloading facility

from taking the most effective action that, in his opinion, is necessary to rectify or minimize the condition that caused the emergency.

The preceding regulations, conditions and procedures being met and understood, my facility is ready for the transfer to begin.

Signature _____ Ship's Officer in Charge or Bargeman Signature _____ Shore Supervisor or First Operator

This form to be retained and filed in the Refinery Office.

SHIP _____ PORT _____ STANOVAN _____ DATE _____ MFG 5017-12/72-500

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1. Provide a copy of the attached form with each GO-244 for marine shipment.
2. Prior to commencement of loading or unloading the Area 1 First Operator will review items listed on the attached form personally and will assure himself that the Serviceman and Bargeman understand all aspects of the transfer to be made. Refer to Operating Standards as follows:
 - 3012 Stanovan Dock
 - 3100 Loading & Discharging Bulk Cargoes
 - 3102 Sampling Vessels and Barges
 - 3103 Use of Cargo Hoses
 - 3171 Handling Bulk Cargo Imports
3. Obtain the signature of the Bargeman and Serviceman prior to commencement of loading.
4. Do not commence loading or unloading until First Operator is satisfied that all equipment is in readiness.
5. Ensure that all overboard discharge points are plugged.
6. Ensure that adequate visibility of the liquid level in vessel tanks is possible. This may require movement of equipment carried on the deck of some Barges.

BY-LAW CORRESPONDENCE

DECEMBER 10, 1973

Consideration and Third Reading:

BURNABY ZONING BY-LAW 1965, AMENDMENT BY-LAW NO. 23, 1973 (#6330)

THE CORPORATION OF THE DISTRICT OF BURNABY

INTER-OFFICE COMMUNICATION

TO: MUNICIPAL CLERK	DEPARTMENT:	DATE: DECEMBER 7/73
FROM: PLANNING DIRECTOR	DEPARTMENT:	OUR FILE #
SUBJECT: HIGH RISE CONDOMINIUM APARTMENTS LOUGHEED HIGHWAY/SPRINGER AVENUE/BELLWOOD AVENUE RZ #66/70		YOUR FILE #

This is to advise that the prerequisites to the above rezoning are completed as follows:

1. The submission of a suitable plan of development.

A suitable plan of development has been submitted.

With regard to Council's concern about noise from traffic on the Lougheed Highway, the applicant has submitted a letter of undertaking on the use of double glazing or an approved acoustical treatment to the south Elevation of Tower #2, and has also shifted Tower #2, 32 feet farther away from the Lougheed Highway right-of-way.

On November 19, 1973, Council allowed this project to revert to the condominium guideline of 1.5 parking spaces per unit from 2.0 spaces per unit.

2. The submission of a suitable subdivision plan dedicating the rights-of-way deemed requisite and consolidating the overall net site into one lot.

The required survey plan has been submitted and will be registered shortly.

3. The deposit of monies to cover the costs of construction of roads and all other Municipal services deemed requisite.

The applicant has deposited letters of credit in the amount of \$62,500 to cover the cost of servicing this site.

4. Underground wiring and ornamental lighting shall be provided by the developer.

The applicant has submitted a letter of undertaking that underground wiring and ornamental street lighting will be provided.

5. Any general condominium guidelines approved by Council shall apply to this project.

The applicant has submitted a letter of undertaking agreeing to comply with the general condominium guidelines as approved by Council.

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BY-LAW CORRESPONDENCE

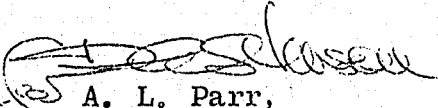
DECEMBER 10, 1973

Consideration and Third Reading:

BURNABY ZONING BY-LAW 1965, AMENDMENT BY-LAW NO. 23, 1973 (#6330)

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As the prerequisites to this rezoning are nearing completion, could you forward it to Council for consideration for Third Reading of the Bylaw, Final Adoption to follow when Point 2 is fully completed.


A. L. Parr,
DIRECTOR OF PLANNING.

KI:cm

BY-LAW CORRESPONDENCE

DECEMBER 10, 1973

Consideration and Third Reading:

BURNABY ZONING BY-LAW 1965, AMENDMENT BY-LAW NO. 23, 1973 (#6330)

PUBLIC HEARING MINUTES
AUGUST 7, 1973

(1) FROM RESIDENTIAL DISTRICT TWO (R2) TO COMPREHENSIVE DEVELOPMENT DISTRICT (CD)

Reference RZ #66/70

- (a) Lot 1 Sketch 12477, S.D. 5/6 Part, Blocks 1/4/6, D.L. 125, Plan 10278
- (b) Lot 1 Except Sketch 12477, S.D. 5E Part and 6, Blocks 1/4/6, D.L. 125, Plan 10378
- (c) Lot "A" Ex. Sk. 8843 and Except Sketch 4800, Block 5, D.L. 125, Plan 3347
- (d) Parcel 1 Explanatory Plan 8843, S.D. "A", Block 5, D.L. 125, Plan 3347

(5145 Lougheed Highway; 2023, 2043 and 2081 Springer Avenue --- Located on the Northwest corner of Springer Avenue and the Lougheed Highway)

Mr. Gerald Hamilton, Architect for Imperial Ventures Ltd., developers of the proposed project on the subject property addressed the Hearing and advised that he was present to answer any question that may arise with particular reference to parking and noise which were of concern to Council.

- (a) Parking - Mr. Hamilton appealed for reconsideration of Council's recent decision whereby the provision of two parking spaces per unit had been made a prerequisite of rezoning. He noted that present plans provide for the provision of 1.5 parking spaces per unit and produced results of an independent survey conducted in several other cities to support his claim that this ratio of parking spaces to the number of units to be constructed was sufficient to meet today's requirements. He questioned the economic viability of providing more parking spaces than actually required and wondered if the requirement for two parking spaces per unit was reasonable or necessary.

All parking is to be provided in underground facilities and the provision of the extra spaces required by Council would add an additional cost of approximately \$1,200.00 per unit to the overall cost of the project which would ultimately be passed on to the purchasers of individual units. The aim of the developer is to keep the final purchase price as low as possible.

In reply to a question by Alderman Burnham, Mr. Hamilton advised that it was anticipated that individual units would sell in the \$35,000.00 to \$45,000.00 range, depending on the height of the unit above ground level.

Under the present plan of providing 1½ parking spaces per unit, title to one parking space would be conveyed to the owner at the time of purchase of a unit and the balance would be managed by the Strata Corporation on a rental basis.

BY-LAW CORRESPONDENCE

DECEMBER 10, 1973

Consideration and Third Reading:

BURNABY ZONING BY-LAW 1965, AMENDMENT BY-LAW NO. 23, 1973 (#6330)

PUBLIC HEARING MINUTES
AUGUST 7, 1973

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P.Hrg. August 7/1973

Alderman Mercier inquired as to whether the developer would be prepared to convey title to two parking spaces to the purchaser of a unit should the present decision of Council to require two parking spaces per unit not be changed. Under this scheme, should the owner not require two parking spaces the unwanted space could be controlled by the Strata Corporation as is now planned.

Mr. Alan Davies, on behalf of the developer, agreed that this would probably be acceptable.

Replying to a question from Alderman Stusiak, Mr. Hamilton advised that the population of the proposed project would be adult oriented with family accommodation being de-emphasized.

- (b) Noise - Mr. Hamilton noted that the development would comprise of two towers, the closest of which will be located 90 feet from the Lougheed Highway and the other approximately twice as far from the Highway. It is the tower closest to the Highway which is the cause of concern. He noted that if it had been possible to face the windows of the tower East and West the problem would be largely negated. However, it had been found that for aesthetic reasons, such as view, etc., it was more practical for the windows to face in a North-South direction. As one method of reducing the noise factor, it was planned to slant the front of all balconies to provide a buffer. Mr. Hamilton also noted that from a report submitted by Acoustical Engineering Ltd., the noise level at ground grade could be substantially reduced by the use of berms and fences.

Alderman Gordon noted that the noise levels on the upper floors did not appear to have received consideration and requested information as to whether the use of double glazing had been fully considered.

Mr. Hamilton replied that the question of double glazing had received first consideration. However, due to the expense involved and the fact that any advantage would be lost through open balcony doors and windows, no plans for double glazing had been included at this time.

Alderman Stusiak suggested that with the high cost of energy required for heating, etc., the provision of double glazing could probably result in considerable savings in operating expenses.

Alderman Lewarne stated that double glazing had been used to great advantage in the recent construction of a Senior Citizens' High Rise in North Burnaby.

Mr. Hamilton stated that in view of the comments made at the Public Hearing, the developer will seriously consider the use of double glazing on the South facade of the tower located closest to the Lougheed Highway.

BY-LAW CORRESPONDENCE

DECEMBER 10, 1973

Consideration and Third Reading:

BURNABY ZONING BY-LAW 1965, AMENDMENT BY-LAW NO. 23, 1973 (#6330)

COUNCIL MEETING MINUTES

AUGUST 13, 1973

Reference RZ #66/70

- (a) Lot 1, Sk. 12477, S.D. 5/6 Part, Blks. 1/4/6, D.L. 125, Plan 10378
- (b) Lot 1 Except Sketch 12477, S.D. 5E Part and 6, Blks. 1/4/6, D.L. 125, Plan 10378
- (c) Lot "A" Except Sk. 8843 and Except Sketch 4800, Blk. 5, D.L. 125, Plan 3347
- (d) Pcl. 1 Ex. Pl. 8843, S.D. "A", Blk. 5, D.L. 125, Plan 3347

5145 Lougheed Highway; 2023, 2043 and 2081 Springer Avenue

FROM RESIDENTIAL DISTRICT TWO (R2) TO COMPREHENSIVE DEVELOPMENT DISTRICT (CD)

MOVED BY ALDERMAN LAWSON, SECONDED BY ALDERMAN MERCIER:

"That further action on this rezoning proposal be deferred until the Planning Department submits a report relating to parking requirements for apartment developments."

IN FAVOUR -- ALDERMEN LAWSON,
MERCIER AND STUSIAK

AGAINST -- ALDERMEN LEWARNE, MCLEAN,
BURNHAM AND GORDON

MOTION LOST

MOVED BY ALDERMAN GORDON, SECONDED BY ALDERMAN MCLEAN:

"That the Committee now rise and report progress on the By-Law."

CARRIED

AGAINST -- ALDERMEN LAWSON, MERCIER
AND STUSIAK

THE COUNCIL RECONVENED

MOVED BY ALDERMAN GORDON, SECONDED BY ALDERMAN MCLEAN:

"That the report of the Committee be now adopted."

CARRIED

AGAINST -- ALDERMEN LAWSON, MERCIER
AND STUSIAK

MOVED BY ALDERMAN GORDON, SECONDED BY ALDERMAN MCLEAN:

"That "BURNABY ZONING BY-LAW 1965, AMENDMENT BY-LAW NO. 23, 1973" be now read two times."

CARRIED

AGAINST -- ALDERMEN LAWSON, MERCIER
AND STUSIAK

MOVED BY ALDERMAN GORDON, SECONDED BY ALDERMAN LAWSON:

"That "BURNABY ZONING BY-LAW 1965, AMENDMENT BY-LAW NO. 24, 1973" be now introduced and that Council resolve itself into a Committee of the Whole to consider and report on the By-Law."

This By-Law provides for the proposed rezoning: