

ITEM 42
MANAGER'S REPORT NO. 45
COUNCIL MEETING July 12/71

42. Re: Regulating of Oil Refinery Expansion.

The following is a copy of the report dated July 7, 1971, requested by Council from the Planning Director.

None of the suggested controls have been examined in detail by the Municipal Solicitor, so some of them may not be legally within the power of a municipality to impose and some of them may have practical limitations. They are offered as possible discussion points only.

No specific recommendation has been made by the Planning Director or the Manager on this subject as, until Council gives further direction, it is not possible to reach a firm conclusion as to what combination of controls, if any, should be considered.

There is little doubt that serious consideration should be given to the comments of the Planning Director in connection with "Performance and Aesthetic Control". It is recommended that the Director be requested to prepare some quantitative standards in this respect, keeping in mind that air and water pollution are under Provincial jurisdiction.

* * * * *

PLANNING DEPARTMENT
7 JULY, 1971

MR. MELVIN J. SHELLEY,
MUNICIPAL MANAGER.

DEAR SIR:

RE: REGULATING OF OIL REFINERY EXPANSION

At its meeting of 21 June 1971, Council requested this department report on amendments to the Zoning By-law which could limit the expansion capabilities of oil refineries, this request arising from a concern for the effect on the environment that could result from uncontrolled plant expansion. More specifically, this involves land use conflict and the related problems associated with emissions to the atmosphere, water effluents, unsightliness, noise levels and possibly fire or explosion hazards to surrounding regions.

Our present by-laws have no provision to limit capacity, per se, but has some provision for quality control. Section 403.2(1) states:

"Nothing shall be done which is or will become an annoyance or nuisance to the surrounding areas by reason of unsightliness, the emission of odours, dust, liquid effluent, fumes, smoke, vibration, noise or glare, nor shall anything be done which creates or causes a health, fire or explosion hazard, electrical interference or undue traffic congestion."

These terms are very subjective in nature, and do not quantify at what levels the above mentioned "annoyance or nuisance to the surrounding areas" becomes unacceptable. The current public dialogue is perhaps a good indication of the minimum tolerance limits that are prevalent.

Without, at this stage, discussing what size an oil refinery should be, or the economic and operating rational that affect the size of a refinery, the following is a brief outline of some possible courses of municipal action that could be taken to control future expansion.

Mr. Melvin J. Shelley
Municipal Manager

Re: Regulating of Oil Refinery Expansion (contd.)

ITEM 42
MANAGER'S REPORT NO. 45
COUNCIL MEETING July 12/71

A. Refinery Expansion Control

If it were felt that further expansion of refineries in Burnaby would not be in the best interests of the Municipality, control could be achieved by:

- 1) the rezoning of the refinery-held lands to create non-conformity,
- 2) the rezoning of appropriate portions of refinery-held lands to create bands that would prohibit lateral expansion in observance of setback requirements,
- 3) the rezoning of appropriate portions of flanking municipally-owned property from P3 to A2 in order to increase the refinery perimeter frontage that must observe setback requirements,
- 4) the revision of Section 403(2) of the Zoning By-law to increase the present setback requirement of 200 feet from A2, R and RM Districts to the appropriate distance,
- 5) amending the by-law to restrict the total output per day of individual refineries (with the provision that no new refineries, whether under the management of corporate subsidiaries or otherwise, be permitted to locate within Burnaby),
- 6) amending the by-law to restrict the total input of crude per day, or the total barrel storage capacity at individual refineries,
- 7) the acquisition of specific portions of refinery-held lands presently undeveloped, as foreshore additions to the park trail system to establish distinct interruptions within the evolving refinery belt on the Burrard Inlet frontage. Possible parks of this type have been proposed within the report, Urban Structure,
- 8) the acquisition of all presently undeveloped refinery-held lands, with a "lease-back" arrangement which would give absolute control to the Municipality in regards to future expansion.

Should it be judged that time for remedial and/or preventative action has arrived, it seems likely that a suitable expansion control formula could be achieved by a combination of the proposed controls as outlined above, although it should be recognized that should the Municipality impose a blanket restriction that would limit all refineries to their present output, it could, for example:

- 1) terminate the economic feasibility of Burnaby locations for the industry,
- 2) jeopardize past investments, and
- 3) invalidate reasonable expectations which were legitimately assumed at the time of investment.

B. Performance and Aesthetic Control

Regardless of whether the decision is made to limit refineries to their present output, or to permit controlled expansion under terms that would promote compatibility with surrounding regions, there are pertinent points that should be made concerning performance and quality standards.

Mr. Melvin J. Shelley
Municipal Manager

Re: Regulating of Oil Refinery Expansion (contd.)

ITEM 42

MANAGER'S REPORT NO. 45

COUNCIL MEETING July 12/71

1. Performance Control

The MacIntyre Report has stated that:

- a) emission problems are generally occurring as a result of process upsets or equipment failure,
- b) modernization programs (such as proposed for the Chevron Refinery) will result in a decrease in emission to the atmosphere as well as a general noise reduction.

These and other statements in the report would seem to indicate that the present and anticipated short range "hard" (e.g., air, water, noise) pollutant levels in the North Burnaby area do not, or would not, constitute a health or general emission problem. As a safety check to this conclusion, it has been recommended that monitoring and sampling devices be utilized to keep a constant surveillance on the emissions resulting from refineries in the area. As cited earlier, Section 403.2(1) of the Zoning By-law sets a subjective standard for the appropriate industries to follow. However, it lacks specific standards for either physical or aesthetic control, and consistent with the MacIntyre recommendation, to monitor performance levels we would recommend that specific performance standards be developed in order to better enforce the requirements of Section 403.2(1). These performance standards could periodically be made more strict as urban development and technological improvements occur.

Further controlled expansion should depend upon the development of such standards, and approval to proceed with expansion would only be given when evidence was presented that prevailing standards could be met.

2. Aesthetic Control

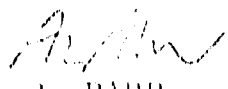
Unquestionably, the refineries situated within the Burnaby area enjoy a distinct economic advantage over those with a location more removed from urban development, but this results in an ever increasing land use conflict between refineries and higher density residential development.

Considering the total investments involved, it would not seem unreasonable to demand, for the sake of all parties, that refineries operating within our urban area, conform to a much higher standard of aesthetic control.

Possible aesthetic controls that could be inserted within the by-law to substantially upgrade the visual appearance of the refineries or storage areas that are in conflict with adjacent areas, include:

- 1) extensive screening with landscaped earth berms,
- 2) comprehensive landscaping of office and frontage areas,
- 3) the maintenance of "natural" boundaries (e.g., ravines) wherever possible,
- 4) the establishment of adequate minimum width buffers,
- 5) an adherence to an appropriate painting scheme which emphasizes various elements of the plant while playing down others.

Respectfully submitted,


A. J. PARR
Planning Director

JSB:ca
c.c. Chief Public Health Inspector - 11
Chief Licence Inspector - 11
J. S. Belhouse - 11