

ITEM 11
MANAGER'S REPORT NO. 34
COUNCIL MEETING 88/05/09

RE: REQUEST FROM CITY OF VANCOUVER FOR APPROVAL TO INCINERATE MARINE WASTES
AT BURNABY (G.V.R.D.) REFUSE INCINERATION PLANT

MUNICIPAL MANAGER' RECOMMENDATION:

1. THAT the recommendations of the Director Engineering be adopted.

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TO: MUNICIPAL MANAGER 1988 MAY 03
FROM: DIRECTOR ENGINEERING

SUBJECT: REQUEST FROM CITY OF VANCOUVER FOR APPROVAL TO
INCINERATE MARINE WASTES AT BURNABY (G.V.R.D.)
REFUSE INCINERATION PLANT

RECOMMENDATIONS:

1. THAT Council advise His Worship Mayor Gordon Campbell, City of Vancouver, that it does not approve of the use of the Burnaby (G.V.R.D.) Refuse Incineration Plant to incinerate marine wastes.
2. THAT copies of this report be sent to:
 - (a) Mr. M.J. O'Connor
Regional Manager
Greater Vancouver Regional District
4330 Kingsway
Burnaby, B.C.
V5H 4G8
 - (b) Alan G. Price
President
Aqua Clean Ships Ltd.
2319 Commissioner Street
Vancouver, B.C.
V5L 1A4

S U M M A R Y

This report explores a number of considerations which need to be taken into account when examining the request to accept marine wastes at the Burnaby Refuse Incineration Plant (R.I.P.) and concludes that there are presently too many unknown answers to the several questions which are considered to be pertinent and pre-requisite to giving Burnaby's approval of the proposal.

R E P O R T

On 1988 April 18, Council received a letter from His Worship Mayor Gordon Campbell, requesting Council's concurrence with their request of the Greater Vancouver Regional District to

(Cont'd.)

accept international marine waste at the Burnaby (G.V.R.D.) R.I.P.. Although it is very important to address the basic question of the desirability of allowing the actual incineration of international marine wastes in the Burnaby R.I.P. located in Burnaby's Big Bend Area, there are several other components that would be involved in the entire operation which also need to be carefully considered. These are:

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1. The physical makeup of marine waste.
2. The classification of marine waste and attendant jurisdictional considerations.
3. The designation, cleaning, and disinfection of transporting vehicles.
4. The designation of acceptable highway routes.
5. The impact of incineration of marine wastes on the environment and on the incinerator itself.

These considerations will be addressed in the same order in which they are listed above.

1. MARINE WASTES MAKEUP

Burnaby's Chief Public Health Inspector reports:

"There are no studies available which give a breakdown of the constituents of the refuse but due to its wide variety of components (which may include anything from dry cleaning residue and print shop waste to kitchen garbage) normal landfilling techniques are contraindicated. There is no distinction as to the classification of this waste; however, because of its mixed nature, it is treated as "special" waste."

In addition to its inherent mixed nature, we have been advised that marine wastes often contain a significantly higher moisture content than do the normal "land" wastes that are handled by our refuse service. This attribute can manifest itself in problems of two types, i.e.:

- (a) More difficult incineration of the higher liquid content waste, resulting in displacement from the incinerator of an even greater volume of regular "land waste".
- (b) More difficult containment of refuse with a higher liquid content and the attendant concerns about increased escape capabilities of pollutant-carrying liquid.

The known physical aspects, then, of marine wastes makeup is that they may contain a wide and largely inseparable variety of specific wastes and that they tend to have a higher liquid content than the same amount of "land wastes".

Each one of these two major attributes of marine wastes is of sufficient importance in its own right so as to be a major factor in a decision on using the Burnaby R.I.P. for disposal of marine wastes. In other words, for example, even if it were possible and practicable to separate out the majority of the wet portion of marine wastes, the attribute of the wide variety of components in marine wastes alone is a factor of major concern.

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2. Marine Waste Classification Jurisdictional Consideration

In Canada, Agriculture Canada Food Production and Inspection Branch monitor the disposal routine of international waste using the Animal Disease and Protection Act and the Plant Quarantine Act.

These acts and subsequent regulations govern the collection, transfer, loading and unloading of international waste. Provincial transportation of special waste is governed by Waste Management Branch. It was confirmed however that there is no consideration given to international waste as defined by the Act. While precautions are recommended, there is no legislation requiring same.

In the Port of Seattle, the United States Department of Agriculture (USDA) is responsible for the supervision of galley wastes because of the possibility of contamination to plant and animal food products.

Wayne Fontenelle, Maritime Supervisor USDA, was contacted and explained that waste removal was strongly discouraged for international vessels. Deep sea dumping is the preferred method of disposal. If removal is required in the port, the procedures follow a strict set of guidelines which include:

- Use of a bonded hauler.
- Sealed, lined trucks to ensure water tight transportation.
- Disinfection of the truck at the site of disposal.
- Incineration or deep land filling.

The local health authority has minor involvement dealing only with the inspection of the hauling vehicles.

We are able to draw the conclusion that because of the international nature of freighters and cruise ships, a wide variety of governmental agencies are concerned with the removal, transportation, and disposal of waste originating from these vessels. Certainly in the case at hand, we have the involvement or at least potential involvement of the Federal, Provincial, Regional, and local governments.

3. Transporting Vehicles

Regardless of which company or agency were to transport marine wastes to the Burnaby R.I.P., it would be essential that the trucks be of a type and quality capable of being made leak-proof. Likewise, the cleaning and disinfection of the trucks is of concern as to the responsible jurisdiction, the actual location of the cleaning operation, and disposition of the effluent from the cleaning operation.

It should be of some concern to Burnaby that Agriculture Canada, who are thought to be the ones who would be responsible for cleaning and disinfection, would be doing so within the framework of only the Animal Disease and Protection Act and the Plant Quarantine Act. The efforts of Agriculture Canada in this regard would probably be satisfactory in the specific areas being addressed but do they go far enough to alleviate local concerns in possible areas other than animals or plants?

4. Highway Routes

There is very little choice in designating the routes that

would be used in gaining access to the Burnaby R.I.P.. These would be:

Marine Way - Boundary Road to 10th Avenue/Marshland (Provincial Arterial Highway).

10th Avenue/Marshland - Marine Way to Wiggins Street.

Wiggins Street - Marshland to Thorn Avenue.

Thorn Avenue - Wiggins Street west to Burnaby R.I.P.

The return route would be in the reverse order of that listed above.

Although our concerns about possible leakage or spillage of marine wastes cover the areas encompassing all of the routes specified above, concerns about Marine Way are particularly acute because:

- (a) It is a Provincial Arterial Highway.
- (b) It has high volumes of traffic (approximately 38,000 per day total).
- (c) It has higher maximum allowable speeds.
- (d) It is located closer to the built-up areas and to the lands designated for agricultural purposes.

Even if possible leakage problems are minimized through at least partial removal of a high liquid content in marine wastes, concern remains high about spillage resulting from causes such as motor vehicle accidents and mechanical failures.

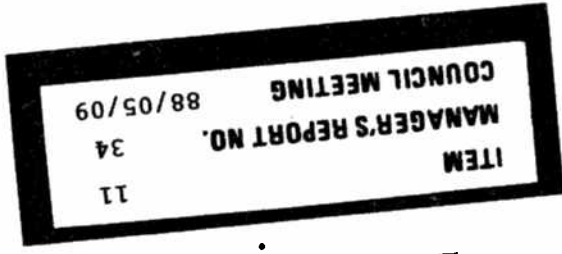
5. Impact on Environment and Incinerator

Because the range embracing the constituent specific wastes which can be found within the general category of marine wastes is so broad, it is very difficult to assess the impact on the environment of incinerating marine wastes at the Burnaby R.I.P.. Although mention has been made that the more undesirable constituent wastes would be separated out and not disposed of at the Burnaby R.I.P., we have been advised that separation would be difficult, or almost impossible, to achieve.

Although it has been estimated that the marine wastes produced during the peak of the cruise ship season would use about 3% of the capacity of the Burnaby R.I.P., this could possibly account for a somewhat greater percentage than the 3% in terms of impact on the incinerator when taking into account that marine wastes tend to include a greater liquid content than an equivalent amount of "land wastes". The displacement of this amount of "land wastes" from the incinerator by marine wastes would transform into a re-assignment of the "land wastes" so displaced to another facility, i.e., a landfill and/or the resource recovery plant.

C O N C L U S I O N

A number of issues and questions pertinent to making a decision on whether or not to support Vancouver's request to allow incineration of marine wastes in the Burnaby R.I.P. have been addressed in this report. Many of the questions go substantially unanswered because there is simply not enough knowledge about marine wastes, particularly as to details of their physical composition. Without having more information at hand, approval should not be given at this time.



Mayor Campbell, in the final paragraph of his letter states:

"I can understand Burnaby's reluctance to accept any additional wastes at the G.V.R.D. incinerator until that facility is fully proven with standard domestic wastes."

and

"I believe that the proposed interim use of Burnaby incinerator virtually eliminates the present pollution problem with minimum risk to the District of Burnaby."

Mayor Campbell's two statements, when taken in tandem, strike at the very heart of Burnaby's concerns and that is that the R.I.P. is still under "trial" as well as being under close public scrutiny. An important trial period is not the time during which Burnaby citizens should be subjected to even "minimum risk" which could possibly be associated with introduction of a new form of solid waste into the Burnaby R.I.P..

The Burnaby R.I.P. is in a crucial period of its life and every effort should be made to avoid compromising the outcome in any way.

EEO:dp


DIRECTOR ENGINEERING

cc: Chief Public Health Inspector
Director Administrative and Community Services

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