

CITY OF BURNABY

ENVIRONMENT COMMITTEE

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HIS WORSHIP, THE MAYOR  
AND COUNCILLORS

**RE: ENVIRONMENT CANADA'S PROPOSED NOTICE REGARDING CEPA  
TOXIC SUBSTANCES (JUNE 07, 2003)**

**RECOMMENDATIONS:**

1. **THAT** Council forward a letter to Honourable Joyce Murray, Minister of Water, Land and Air Protection and Honourable David Anderson, Minister of Environment expressing the following concerns:
  - The need to harmonize the proposed federal approach with existing provincial regulations.
  - Setting arbitrary management objectives that do not consider important factors such as local conditions, mixing zones and the assimilative capacity of the receiving environment.
  - Potentially high cost to build ammonia reduction facilities.
  
2. **THAT** a copy of this report be forwarded to the GVRD, Union of B.C. Municipalities, the Federation of Canadian Municipalities, local MP's and MLA's.

REPORT

The Environment Committee, at its Open meeting held on 2004 January 13, received and adopted the *attached* report in response to Environment Canada's proposed Notice regarding Preparation of Pollution Prevention Plans for Ammonia Dissolved in Water, Inorganic Chloramines and Chlorinated Wastewater Effluents. The Committee expressed general support for the environmental framework that the CEPA legislation provides. The Committee noted, however, that the proposed federal approach presents several concerns to local and regional governments. The Committee concluded by advising that Environment Canada should review the proposal with full consideration for local receiving conditions, harmonizing federal and provincial regulations and financial ramifications.

Respectfully submitted,

Councillor D. Johnston  
Chair

Councillor P. Calendino  
Vice Chair

Councillor C. Redman  
Member

COPY - CITY MANAGER  
- DIRECTOR PLANNING & BUILDING  
- DIRECTOR ENGINEERING

**TO:** CHAIR AND MEMBERS  
ENVIRONMENT COMMITTEE

**DATE:** 2004 01 07

**FROM:** DIRECTOR ENGINEERING

**FILE:** 33200-04

**SUBJECT:** ENVIRONMENT CANADA'S PROPOSED NOTICE REGARDING CEPA  
TOXIC SUBSTANCES (JUNE 07, 2003)

**PURPOSE:** To provide the Committee with comments on Environment Canada's proposed Notice regarding Preparation of Pollution Prevention Plans for Ammonia Dissolved in Water, Inorganic Chloramines and Chlorinated Wastewater Effluents.

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**RECOMMENDATION:**

1. **THAT** the Committee recommend to Council to:
  - a) Write to Honourable Joyce Murray, Minister of Water, Land and Air Protection and Honourable David Anderson, Minister of Environment expressing the following concerns:
    - The need to harmonize the proposed federal approach with existing provincial regulations.
    - Setting arbitrary management objectives that do not consider important factors such as local conditions, mixing zones and the assimilative capacity of the receiving environment.
    - Potentially high cost to build ammonia reduction facilities.
  - b) Forward a copy of this report to the GVRD, Union of B.C. Municipalities, the Federation of Canadian Municipalities, local MP's and MLA's.

**REPORT**

**1.0 INTRODUCTION**

At the December 09, 2003 Environment Committee meeting, the Committee reviewed a correspondence from the Greater Vancouver Regional District seeking support in advising the Provincial and Federal government of municipal concerns with respect to Environment Canada's Notice regarding CEPA Toxic Substances.

Arising from the discussion, the Committee requested staff to review the issue and prepare a report. The following report provides comments on Environment Canada's proposed June 07, 2003 Notice regarding Preparation of Pollution Prevention Plans for Ammonia Dissolved in Water, Inorganic Chloramines and Chlorinated Wastewater Effluents.

**2.0 PROPOSED NOTICE REGARDING PREPARATION OF POLLUTION PREVENTION PLANS FOR AMMONIA DISSOLVED IN WATER, INORGANIC CHLORAMINES AND CHLORINATED WASTE WATER EFFLUENTS**

In June 2001, the federal Minister of Environment and the Minister of Health published their recommendation that ammonia, inorganic chloramines, nonylphenols and textile mill effluents be added to schedule 1 of Canadian Environmental Protection Act (CEPA) list of toxic substances. Chlorinated municipal effluent was added to the list in 1999.

In June 07, 2003 issue of the *Canadian Gazette* Part 1, a Notice was issued under Part 4 of CEPA 1999 regarding preparation of pollution prevention plans for ammonia dissolved in water, inorganic chloramines and chlorinated waste water effluents. A 60 day comment period was provided. After receiving and considering comments on this Proposed Notice, the Minister of Environment intends to publish the Final Notice in the *Canadian Gazette* Part 1 by December 2004.

The Final Notice will apply to persons who, in addition to other criteria, own a wastewater collection system or wastewater treatment system which collects or treats liquid or waterborne sewage, industrial wastes, commercial or institutional wastes, where the annual average effluent release from that system to surface water is greater than or equal to 5,000 cubic metres per day and where any of the following three conditions noted in part are met:

- ▶ the concentration of total chlorine residual in the release exceeded 0.02 mg/L at any time in 2004;
- ▶ the concentration of ammonia nitrogen in the effluent exceeded 16 mg/L at anytime during the period of June 01, 2003, to September 30, 2004.
- ▶ the pH of the surface water upstream of the effluent release point exceeded 7.5 at any time during the period of June 01, 2004, to September 30, 2004.

There are specific trigger levels identified for wastewater collection and treatment systems and if they apply, a pollution prevention plan must be prepared. Municipalities are to determine the appropriate content of their own plan but the plan must meet all the requirement of what will be the Final Notice. The plan must consider seven factors, the most significant appear to be:

- ▶ The risk management objectives that define what the Minister expects persons to achieve, which for ammonia states "reduce to the fullest extent the amount of ammonia in the effluent..."
- ▶ Implementing a monitoring program in the receiving environment in relation to water quality guidelines for reactive chlorine (0.0005 mg/L) for protection of freshwater and marine life, and un-ionized ammonia (0.019 mg/L) for protection of freshwater life. Due to the limited ammonia toxicity data on marine organisms, there was insufficient information to derive a guideline and as a result, no marine guideline has been recommended.

### Comments

Specific comments relating to the subject issue are noted as follows:

1. *The need to harmonize federal and provincial management strategies and provide a "one window" approach for municipalities.*

Having to meet regulatory requirement for the same substance for both senior levels of government will create duplication, considerably more administrative work for the local and regional governments and lead to potential further ambiguity regarding the real needs to ensure the protection of the receiving environment.

2. *Setting arbitrary objectives that do not consider local conditions, mixing zones, and the assimilative capacity of the receiving environment.*

The findings of Environment Canada's risk assessment, documented in the report titled "Priority Substance List Assessment Report - Ammonia in Aquatic Environment " states in part (Section 3.4) that since the toxicity of ammonia is dependent on many site specific variables, options to reduce exposure to ammonia from municipal wastewater systems should be examined on a site-specific basis. If a City or region has a water body with a large dilution capacity, then ammonia control may not be necessary, or perhaps an improved dilution system may be required. These findings are not reflected in the current Proposed Notice.

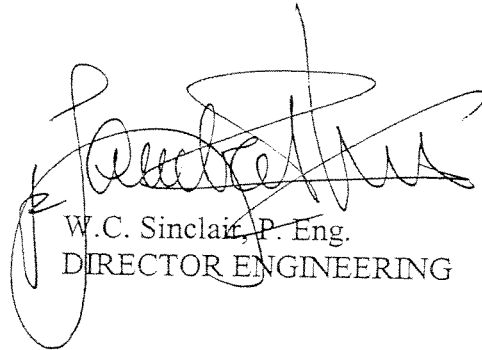
3. *The high cost to build ammonia reduction facilities even if there are no environmental benefits to be gained and funds may need to be diverted from more important environmental priorities.*

The GVRD has indicated that according to their previous engineering investigations, the capital investment required to reduce ammonia from Annacis and Lulu sewage treatment plant "to the fullest extent" as noted in the Proposed Notice would be in the order of \$110 million.

In addition, it is to be noted that while the tests done by the GVRD on ammonia levels in combined sewage overflows (CSO's) indicate that they do not exceed 16 mg/L, the City would have to view potential implications and costs associated with CSO's.

3.0 CONCLUSION

Staff are in general support of the environmental framework that the CEPA legislation provides. However, the proposed federal approach presents several concerns to local and regional governments and Environment Canada should review the proposal with full consideration for local receiving conditions, harmonizing federal and provincial regulations and financial ramifications.



W.C. Sinclair, P. Eng.  
DIRECTOR ENGINEERING

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cc: City Manager  
Director Planning and Building

