

ITEM 5  
MANAGER'S REPORT NO. 31  
COUNCIL MEETING 1984 04 24

RE: LETTER FROM MRS. P. GRAHAM WHICH APPEARED ON THE AGENDA FOR THE  
1984 APRIL 16 MEETING OF COUNCIL (ITEM 5c)  
DETERIORATING AMBIENT AIR QUALITY IN THE LOWER MAINLAND

MUNICIPAL MANAGER'S RECOMMENDATION:

1. THAT the recommendation of the Chief Public Health Inspector be adopted.

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TO: MUNICIPAL MANAGER

1984 April 17

FROM: CHIEF PUBLIC HEALTH INSPECTOR

Our file: 3-03-01

RE: LETTER TO MAYOR AND COUNCIL FROM MRS. P. GRAHAM,  
2115 WEST 8TH AVENUE, VANCOUVER, B.C., V6L 1A3, REGARDING  
DETERIORATING AMBIENT AIR QUALITY IN THE LOWER MAINLAND

RECOMMENDATION:

1. THAT a copy of this report be forwarded to Mrs. P. Graham,  
2115 West 8th Avenue, Vancouver, B.C., V6L 1A3.

SUMMARY:

Following is a report outlining the municipal ambient air quality and the concerns on measurements of ozone. The Greater Vancouver Regional District has recently formed the "Lower Mainland Oxidant Committee", composed of Federal, Provincial and G.V.R.D. staff. The objective of this Committee is to identify the contributors to the ozone problem in the Lower Mainland, and formulate short and long-term plans for remedial action.

Burnaby Health Department, Environmental Health Division staff are continuing to liaise with the Greater Vancouver Regional District on ambient air quality within this municipality and are reviewing applications for air emission permits for individual levels of contaminants and those which could contribute to measurements of ozone in the ambient air.

REPORT

Further to receipt of a letter by Mayor and Council from Mrs. P. Graham, dated 1984 April 03 regarding deteriorating air quality in the Lower Mainland, we would advise as follows.

A. ANALYSIS OF RECENT G.V.R.D. AIR QUALITY MONITORING WITHIN BURNABY

The Federal Government's Clean Air Act and the Air Quality Objectives of the Provincial Ministry of Environment make provision for three levels of air quality objectives for major air contaminants:

Level A: Desirable

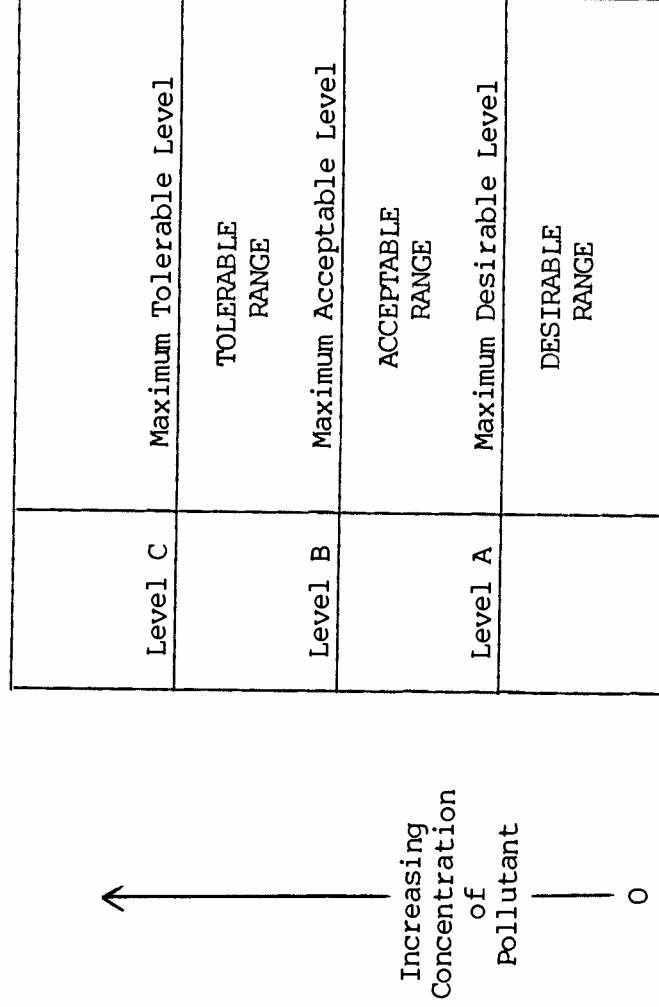
The maximum desirable level defines the ultimate goal for air quality and provides a basis for an anti-degradation policy for the unpolluted parts of the country and for the continuing development of control technology.

Level B: Acceptable

The maximum acceptable level is intended to provide adequate protection against adverse effects on soil, water, vegetation, materials, animals, visibility, personal comfort and well-being. It represents the realistic objective today for all parts of Canada.

Level C: Tolerable

The highest Federal objectives are called maximum tolerable levels and are felt to represent conditions which border upon offensive to public propriety in the lifestyle prevailing in Canada, but which lie comfortably short of an immediate danger to public health. This maximum tolerable objectives are substantially below, and should not be compared with, the alert, warning and emergency levels specified by State and Federal Governments in the United States. The Canadian Government has not established such alert, warning or emergency levels.



A recent review of the 1982 and 1983 G.V.R.D. Air Quality Sampling Data for the North Burnaby Kensington Park and Confederation Park sites reveals that for SO<sub>2</sub>, CO, NO<sub>2</sub>, and suspended particulates, the ambient air concentrations are within the Level B, maximum acceptable level.

Peak ozone concentrations in North Burnaby during summer months exceeded Level B in 1982 and, during 1983, Level A. The following chart details the number of days on which ozone has exceeded levels A and B.

1982 OZONE LEVELS - G.V.R.D AIR MONITORING

STN. VALID DAYS	VALUES OVER LEVEL 'A'		VALUES OVER LEVEL 'B'		VALUES OVER LEVEL 'C'	
	1 HOUR AVG. DAYS	TOT. DAYS	1 HOUR AVG. DAYS	TOT. DAYS	1 HOUR AVG. DAYS	TOT. DAYS
T4 338	30	9	1	1	0	0
T5 358	132	41	7	5	0	0

1983 OZONE LEVELS - G.V.R.D. AIR MONITORING

STN. VALID DAYS	VALUES OVER LEVEL 'A'		VALUES OVER LEVEL 'B'		VALUES OVER LEVEL 'C'	
	1 HOUR AVG. DAYS	TOT. DAYS	1 HOUR AVG. DAYS	TOT. DAYS	1 HOUR AVG. DAYS	TOT. DAYS
T4 261	11	3	0	0	0	0
T5 350	42	20	0	0	0	0
T9 341	322	69	38	8	2	1

NOTE: Stn. T4 - Kensington Park  
 Stn. T5 - Confederation Park  
 Stn. T9 - Rocky Point, Port Moody

The highest levels of ozone recorded within the Greater Vancouver Regional District are at the Rocky Point, Port Moody, Air Sampling Station. This site recorded an ozone level during a one-day period in the summer of 1983 which exceeded Level C.

As mentioned in the brief attached to Mrs. Graham's letter to Council, ozone is produced when hydrocarbons and oxides of nitrogen react with oxygen and sunlight. Ozone is a major component of smog. The sources for nitrogen oxides and hydrocarbons which produce the ozone are mainly the automobile and, to a minor degree, industry. Although Vancouver has the majority of automobiles, the areas to the east including North Burnaby, and particularly Port Moody and Coquitlam, experience the highest levels of ozone. This is due to prevailing sea-land breezes which carry the pollutants eastward and, during periods of inversion, prevent its dispersal.

B. CURRENT DEVELOPMENTS IN ADDRESSING THE OZONE ISSUE

The Burnaby Health Department, Environmental Health Division, is reviewing all air emission permit applications made to the Greater Vancouver Regional District from industrial/commercial sources within this municipality. The review includes the specific contaminant emission and emissions which could possibly contribute to ambient air measurements of ozone. Our review of permit applications also includes those industries in adjacent municipalities which have been identified as possible contributors to the ambient air measurements of ozone within this municipality. Should review of the applications raise concern, comments are forwarded to the Greater Vancouver Regional District for their assessment during review of the application.

Should the Greater Vancouver Regional District issue a permit to an applicant where the emission levels are of concern to this Division, a recommendation would be made to Municipal Council to forward a formal objection under the Provincial Ministry of Environment, Waste Management Act.

Recognizing the potential for peak measurements of ozone during the summer months, the Environmental Health Division has structured a daily reporting system with the Greater Vancouver Regional District for purposes of identifying ozone concentrations at the Kensington Park, Confederation Park and Rocky Point, Port Moody testing sites. Our purpose in having the daily collection of ozone readings is for immediate identification of levels which could be a risk to community health.

At this time, the Greater Vancouver Regional District, Air Quality Division, is coordinating efforts and resources of the Federal Environmental Protection Service, the Provincial Ministry of Environment and Greater Vancouver Regional District staff on a working committee, entitled "Lower Mainland Oxidant Committee".

The objective of this committee is to prepare a detailed emission inventory in relation to sources contributing to ambient air concentrations of ozone and establishing a schedule of strategies and controls in relation to short and long-term objectives.

The formation of the Lower Mainland Oxidant Committee is a much needed start in addressing contributing sources of ozone within the Lower Mainland and developing a strategy to deal with the problem.

On 1984 April 16, Municipal Council adopted a motion that "the Greater Vancouver Regional District conduct an information meeting on air quality within the Lower Mainland for elected officials and appropriate staff." At such time as this meeting is held, it would be appropriate for the Greater Vancouver Regional District to detail the terms of reference and the set deadlines for the Lower Mainland Oxidant Committee.

The Burnaby Health Department, Environmental Health Division, will continue its close liaison with the Greater Vancouver Regional District on individual industrial sources of air emissions and the ambient air quality monitoring data.

George V. Harvie

G.V. Harvie, C.P.H.I.(C)  
CHIEF PUBLIC HEALTH INSPECTOR

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cc: Director Administrative & Community Services  
Medical Health Officer