



Greater Vancouver Regional District
4330 Kingsway, Burnaby, British Columbia, Canada V5H 4G8

Policy and Planning Department
Telephone (604) 432-6375
Fax (604) 436-6970

PERMIT

(Under the provisions of the GVRD Air Quality Management Bylaw No. 937, 1999)

CHEMICAL LIME COMPANY OF CANADA INC.

IS AUTHORIZED TO DISCHARGE AIR CONTAMINANTS

FROM A LIME PRODUCTS PLANT

LOCATED AT 20303 - 102B AVENUE, LANGLEY BC V3A 4P8

This permit has been issued under the terms and conditions prescribed in the attached Schedules A, B, C, D, E, F, G & H for emission sources and works existing or planned on May 28, 2004

DISTRICT DIRECTOR
PERMIT NUMBER GVA0432

INDEX OF SCHEDULES

Schedule A.....Site Plan

Schedule B.....General Requirements

Schedule C.....Emission Monitoring, Sampling and Reporting Requirements

Schedule D.....Emission Sources and Discharge Points

Schedule E.....Authorized Rates of Discharge

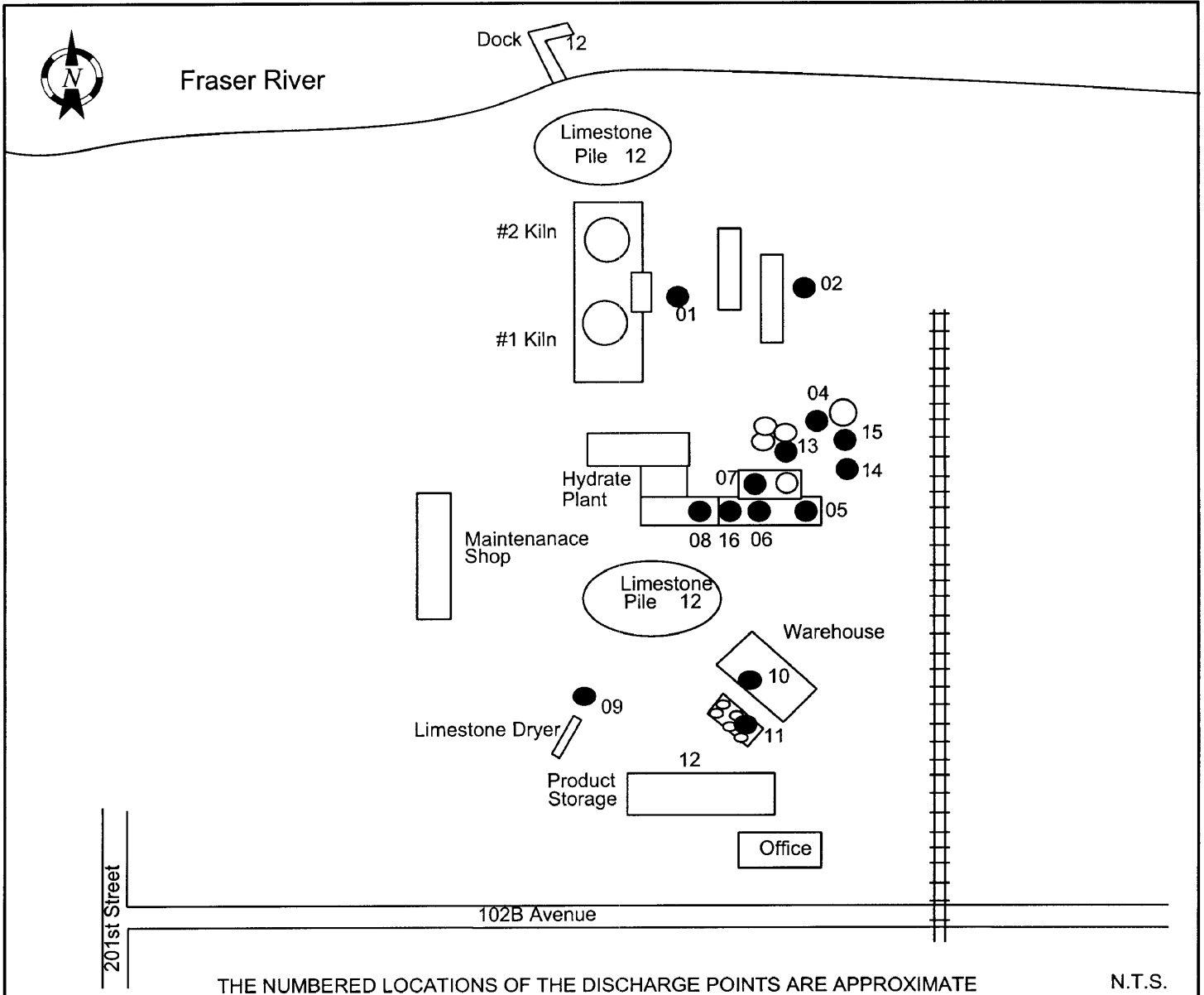
Schedule F.....Authorized Discharge Criteria

Schedule G.....Authorized Works and Procedures

Schedule H.....Record of Permit Issuance Dates

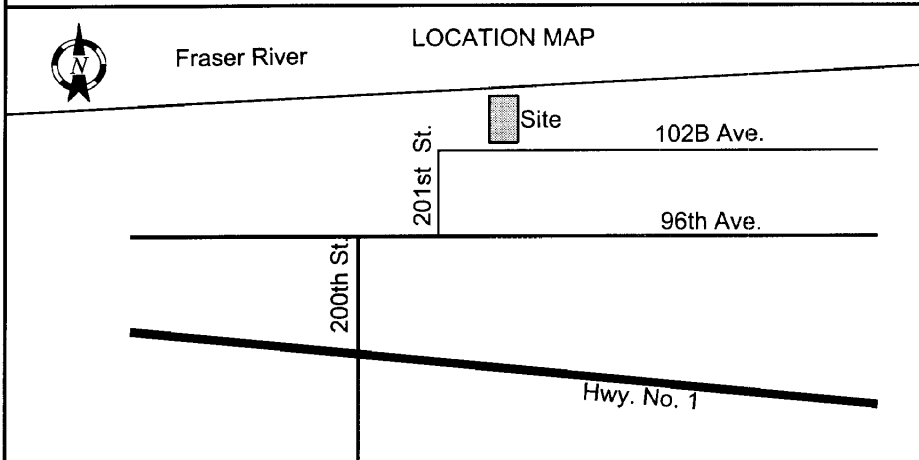
GREATER VANCOUVER REGIONAL DISTRICT

**SCHEDULE A - Page 1
to PERMIT GVA0432**



THE NUMBERED LOCATIONS OF THE DISCHARGE POINTS ARE APPROXIMATE

N.T.S.



May 28, 2004

[Signature]
DISTRICT DIRECTOR

Schedule A to Permit No. GVA0432

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**SCHEDULE B - Page 1
to PERMIT GVA0432**

A AMENDMENTS

The terms and conditions of this Permit may be amended, as authorized by applicable legislation.

B MAINTENANCE AND OPERATION OF WORKS

Works and procedures, which this Permit authorizes to control the discharge of air contaminants, shall be employed during all operating periods of the related facilities. The Permittee shall regularly inspect and maintain all such works in good repair.

C EMERGENCY PROCEDURES

An emergency or other condition may prevent the continuous utilization of the above authorized works and procedures, or may result in a discharge of air contaminants which is not authorized by this Permit. If such a situation occurs, the Permittee shall report the circumstances of this event to the Greater Vancouver Regional District, Policy and Planning Department at 604-436-6777 (24 hours), at the first available opportunity.

No discharge that has bypassed control works is authorized unless the District Director's approval has been obtained. In the event of an emergency, bypassing facilities may be used for such periods as are necessary to effect a shutdown of the related processes.

D AIR CONDITIONING, HEATING AND VENTILATION SYSTEMS

Air contaminants discharged from any natural gas-fired air conditioning, heating or ventilation systems for buildings located at the discharge site are not specified in this Permit. These works shall be maintained and operated in a manner prescribed by the manufacturer to ensure good combustion of the fuel with minimum discharge of air contaminants. Notwithstanding the above, the District Director may at her/his discretion stipulate limits for emission of contaminants from these sources in the Permit at a future date under provisions of the Bylaw.

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E GENERAL SITE RESTRICTIONS

No air contaminant(s) from any single source, or combination of sources shall pass the boundary of the property, described in Section I of this Schedule B, such that the District Director determines that pollution has occurred.

F INTERNAL COMBUSTION ENGINES

Air contaminants discharged from any natural gas, propane, gasoline, diesel, or other fossil fuel fired internal combustion engines operated at the discharge site may not be specifically authorized in this Permit. These works shall be maintained and operated in a manner prescribed by the manufacturer to ensure good combustion of the fuel and to minimize emissions such that the requirements of Section E of this Schedule B are not exceeded. The District Director may at her/his discretion stipulate further limits for emission of contaminants from these sources in the Permit at a future date under provisions of the Bylaw.

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G ENGINEERING UNITS

The engineering units specified in this Permit are in accordance with the Metric System of measure. Approximate equivalent values for the British System can be calculated using the following conversion factors.

$\text{mg/m}^3 \times 0.000437 = \text{gr/cf}$
 $\text{m}^3/\text{min} \times 35.3 = \text{cf/min}$
 $\text{kg/m}^3 \times 0.0624 = \text{lbs/cf}$
 $\text{kg/L} \times 10.0 = \text{lbs/gal}$
 $\text{mg/m}^3 \times 24.0/\text{M} = \text{ppm (by volume)}$
 $\text{GJ/h} \times 0.9478 = \text{MMBTU/h}$

where

m³ = cubic metre
min = minute
mg = milligram
cf = cubic feet
s = second
lb = pound
kg = kilogram
gal = gallon
L = litre
M = molecular weight
gr = grain
ppm = parts per million
GJ = GigaJoule
MMBTU = Million British Thermal Unit
h = hour

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**SCHEDULE B - Page 4
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H STANDARD CONDITIONS AND DEFINITIONS

Except where otherwise indicated, the following standard conditions and definitions apply to this Permit.

1. The Restrictions in the attached Schedules are maximum limits.
2. Gaseous volumes are corrected to dry conditions of 20° Celsius & 760mm Hg.
3. Particulate matter from combustion sources is corrected to 12% Carbon Dioxide.
4. Opacity is measured at the point of maximum density, nearest the discharge point.
5. Opacity measurements exclude the effect of condensed, uncombined water droplets.
6. Definitions in the Waste Management Act and GVRD Air Quality Management Bylaw current at the time the facility commences operation apply to terminology used in this Permit.
7. Threshold Limit Values (TLV) refer to the Time Weighted Average (TWA) exposure limits for substances specified in the American Conference of Governmental Industrial Hygienists Threshold Limit Values handbook for the year 2004.
8. Any production, storage, transportation, handling, treatment, processing or ownership of a special waste must comply with the requirements of the Waste Management Act, Special Waste Regulation.

I DESCRIPTION OF DISCHARGE SITE

The land from which the air contaminants are discharged is described as "Municipality of Langley, Parcel Identifier 006-803-733, Lot 3. Except: Part dedicated Road Plan 77549; District Lot 50, Group 2 New Westminster District Plan 1115".

"Legal Notations:

Hereto is annexed easement H124459 over Part (Plan 41707) of Lots 8, 9, 10, 12 Plan 1115 and Lot 37 Plan 37678 except: Part on Plan 41495".

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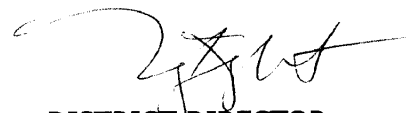
SCHEDULE C - Page 1 to PERMIT GVA0432

This Schedule describes emission monitoring, sampling and reporting requirements.

The Permittee shall conduct the following monitoring and sampling program on the discharges and submit the results to the District Director. The need for increased or decreased monitoring may be reviewed periodically by the District Director.

| EMISSION NUMBER | DUE DATES | REQUIREMENTS |
|--|--|---|
| 01, 02, 09 | See requirements | The quantity of natural gas burned referred to in Schedule F of this Permit shall be continuously monitored and recorded using methods approved by the District Director. This continuous record is to be maintained and made available for inspection by Policy and Planning staff for a minimum period of three years. |
| 01, 10, 11, 13, 14, 15, 02, 04, 05, 06, 07, 08, 09, 16 | March 31, 2005 and annually thereafter | Written report detailing the total number of hours and days operated during the preceding calendar year. Records are to be maintained in a written bound log or other format approved by the District Director, and made available for inspection, by Policy and Planning staff for a minimum period of three years. |
| 01, 10, 11, 13, 14, 15, 02, 04, 05, 06, 07, 08, 09, 16 | See requirements | The operating period referred to in Schedule E of this Permit shall be continuously monitored and recorded using methods that have received prior approval by the District Director. This continuous record is to be maintained and made available for inspection by Policy and Planning staff for a minimum period of three years. |
| 01, 10, 11, 13, 14, 15, 02, 04, 06, 07, 08, 09, 16 | March 31, 2005 and annually thereafter | Written report indicating inspection frequency, bag condition and action taken or proposed to solve any problems detected for the baghouses described in Schedule G of this Permit. |
| 01, 11, 15, 02, 06, 09 | December 31, 2004 and annually thereafter | The measured discharge rate and concentration of particulate matter in the emission(s). Note: Testing of 06 is required only if the High Surface Area Hydrate System is operated. |

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**SCHEDULE C - Page 2
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| EMISSION NUMBER | DUE DATES | REQUIREMENTS |
|------------------------|--|---|
| 05 | March 31, 2005 and annually thereafter | Written report indicating inspection frequency, scrubber condition and action taken or proposed to solve any problems detected for the scrubber described in Schedule G of this Permit. |
| General | March 31, 2005 and annually thereafter | Written report detailing the types and amounts of principal products produced and principal raw materials used in the preceding calendar year. |
| General | March 31, 2005 and annually thereafter | Written report detailing the types and amounts of fuel burned in the preceding calendar year. |

Unless otherwise approved by the District Director prior to any sampling or analysis, all emission measurements shall be performed by an independent agency in accordance with those procedures described in applicable source test codes and laboratory manuals which have been published by the British Columbia Ministry of Water, Land and Air Protection, as they may be amended from time to time. Any variance from these procedures must receive prior approval from the District Director. Monitoring results shall be reported in the metric units which are used in this Permit to specify the authorized discharge criteria. These submissions shall include the production rate at the time of the test, and all field data and calculations. In addition, the Permittee shall provide the Greater Vancouver Regional District, Policy and Planning Department, with a minimum of 3 working days advance notice before any emission measurements required by this Monitoring and Sampling Program are carried out.

Ambient air sampling and monitoring shall be undertaken by the Permittee, when required by the District Director.



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**SCHEDULE D - Page 1
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The authorized emission sources and discharge points located approximately as shown on Schedule A are:

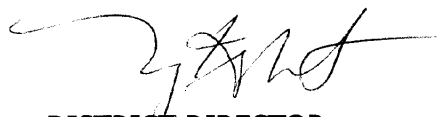
| EMISSION NUMBER | EMISSION SOURCE | DISCHARGE POINT |
|------------------------|---|------------------------|
| 01 | No. 1 lime kiln & lime cooler | Stack(s) |
| 02 | No. 2 lime kiln & lime cooler | Stack(s) |
| 04 | Quicklime storage, handling & loadout facilities | Stack(s) |
| 05 | Lime hydrator | Stack(s) |
| 06 | Classified hydrate system | Stack(s) |
| 07 | Standard hydrate silo | Stack(s) |
| 08 | Hydrate products bagging, handling and loadout facilities | Stack(s) |
| 09 | Agricultural limestone drying system | Stack(s) |
| 10 | Agricultural lime bagging operation | Stack(s) |
| 11 | Dried limestone handling and loadout facilities | Stack(s) |
| 12 | Raw materials receiving, conveying and stockpiling | Other |
| 13 | Quicklime pneumatic conveying | Vent(s) |
| 14 | Kiln dust pneumatic conveying | Vent(s) |
| 15 | Quicklime screening, silos and handling facilities | Stack(s) |
| 16 | Hydrate products bagging | Baghouse Exhaust(s) |

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**SCHEDULE E - Page 1
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The authorized rates of discharge for the emission sources described in Schedule D are:

| EMISSION NUMBER | MAXIMUM AUTHORIZED RATE OF DISCHARGE | | | NOTES & ADDITIONAL REQUIREMENTS |
|----------------------------|---|-------------------------------|--------------------------------|--|
| | FLOW m3/min | DURATION hours/day | FREQUENCY days/week | |
| 01 | 1,500 | 24 | 7 | The combined aggregate usage of the #1 and #2 kilns shall not exceed 14830 hours per year. |
| 02 | 1,500 | 24 | 7 | The combined aggregate usage of the #1 and #2 kilns shall not exceed 14830 hours per year. |
| 04 | 250 | 24 | 7 | |
| 05 | 65 | 24 | 7 | Maximum 4000 hours/year. |
| 06 | 400 | 24 | 7 | Maximum 4000 hours/year. |
| 07 | 65 | 24 | 7 | Maximum 4000 hours/year. |
| 08 | 50 | 24 | 7 | Maximum 4000 hours/year. |
| 09 | 600 | 24 | 7 | |
| 10 | 70 | 8 | 5 | |
| 11 | 250 | 24 | 7 | |
| 12 | See Notes | 24 | 7 | The authorized discharge is that resulting from raw materials handling operations. |
| 13 | 50 | 24 | 7 | |
| 14 | 50 | 24 | 7 | |
| 15 | 325 | 24 | 7 | |
| 16 | 50 | 24 | 7 | |



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**SCHEDULE F - PAGE 1
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The authorized maximum discharge criteria for emission sources described in Schedule D are:

| EMISSION NUMBER | PARAMETER | RESTRICTION | NOTES |
|--|---------------------|-----------------------|--|
| 12 | Particulate Matter | See Notes | None past the plant boundary such that the District Director determines that pollution has occurred |
| 05 | Particulate Matter | 120 mg/m ³ | |
| 01, 02, 04, 06, 07, 08, 09, 10, 11, 13, 14, 15, 16 | Particulate Matter | 50 mg/m ³ | |
| 01, 02, 04, 05, 06, 07, 08, 09, 10, 11, 13, 14, 15, 16 | Opacity | 10% | Based on six minute average. |
| 01, 02 | Combustion Products | See notes | Typical products of natural gas combustion at a combined maximum firing rate of 75.0 Gigajoules/hour. |
| 09 | Combustion Products | See notes | Typical products of natural gas combustion at a maximum firing rate of 17.9 Gigajoules/hour. Total volume of natural gas burned is not to exceed 1.500 million m ³ per calendar year and is not to exceed 170,000 m ³ in any calendar month. |



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**SCHEDULE G - Page 1
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The authorized works and procedures to control the discharge of air contaminants from the emission sources described in Schedule D are indicated below. The District Director may require that further works be installed, if the existing works, in her/his opinion, do not provide an acceptable level of emission control. New works or alterations to existing works must be approved, in principle, by the District Director.

Where the District Director has specified that additional works are required, the maximum discharge criteria described in Schedule F of this Permit are applicable as specified by the Completion Date(s) listed below. Prior to the specified date(s) the existing control works and procedures must be maintained in good operating condition and operated in a manner to minimize emissions.

| EMISSION NUMBER | COMPLETION DATE | DESCRIPTION OF WORKS/PROCEDURES |
|---|------------------------|---|
| 12 | Completed | Receiving hoppers, piles, transfer points. Good operating practices. |
| 01, 02, 04, 06, 07, 08, 09, 10, 11, 13, 14, 15, 16 | Completed | The existing baghouses and related appurtenances, together with good operating practices. |
| 05 | Completed | The existing wet scrubber and related appurtenances, together with good operating practices. |



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**SCHEDULE H - Page 1
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RECORD OF PERMIT ISSUANCE

| DATE | ACTION | SECTIONS AFFECTED |
|-------------------|---------------|---|
| November 30, 1992 | ISSUANCE | Face, Schedules A, B, C, D, E, F, G & H |
| December 18, 1992 | AMENDMENT | Face, Schedules A, B, C, D, E, F, G & H |
| March 15, 1994 | AMENDMENT | Face, Schedules A, B, C, D, E, F, G & H |
| July 15, 1994 | AMENDMENT | Face, Schedules A, B, C, D, E, F, G & H |
| March 29, 1996 | AMENDMENT | Face, Schedules A, B, C, D, E, F, G & H |
| December 15, 2000 | AMENDMENT | Face, Schedules A, B, C, D, E, F, G & H |
| May 28, 2004 | AMENDMENT | Face, Schedules A, B, C, D, E, F, G & H |

May 28, 2004


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