



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

General
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Air Quality and Source Control Department - Tel (604) 436-6700 Fax (604) 436-6707

PERMIT

(Under the provisions of the GVRD Air Quality Management Bylaw No. 725)

FORINTEK CANADA CORP.

IS AUTHORIZED TO DISCHARGE AIR CONTAMINANTS
FROM A SCIENTIFIC & TECHNICAL LABORATORY
LOCATED AT 2665 EAST MALL, VANCOUVER, B.C. V6T 1W5

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 March 11, 1994


ASSISTANT AIR QUALITY DIRECTOR

PERMIT NUMBER GVA0481

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Schedule D Emission Sources and Discharge Points

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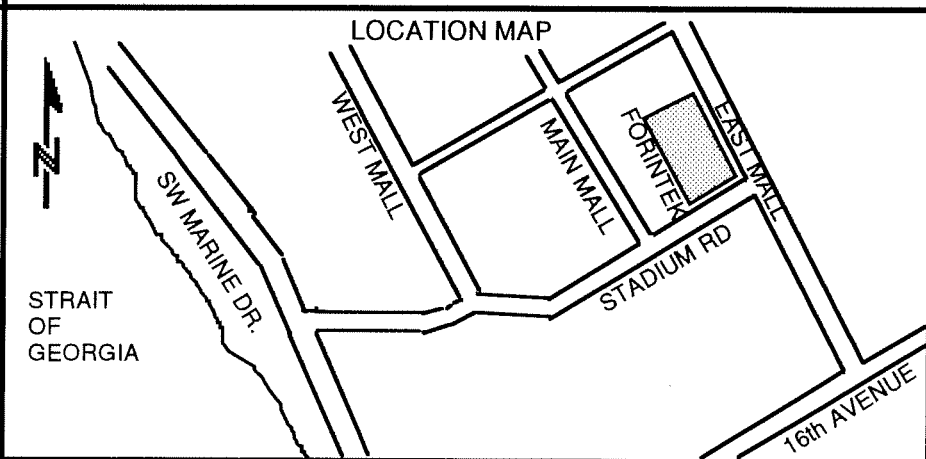
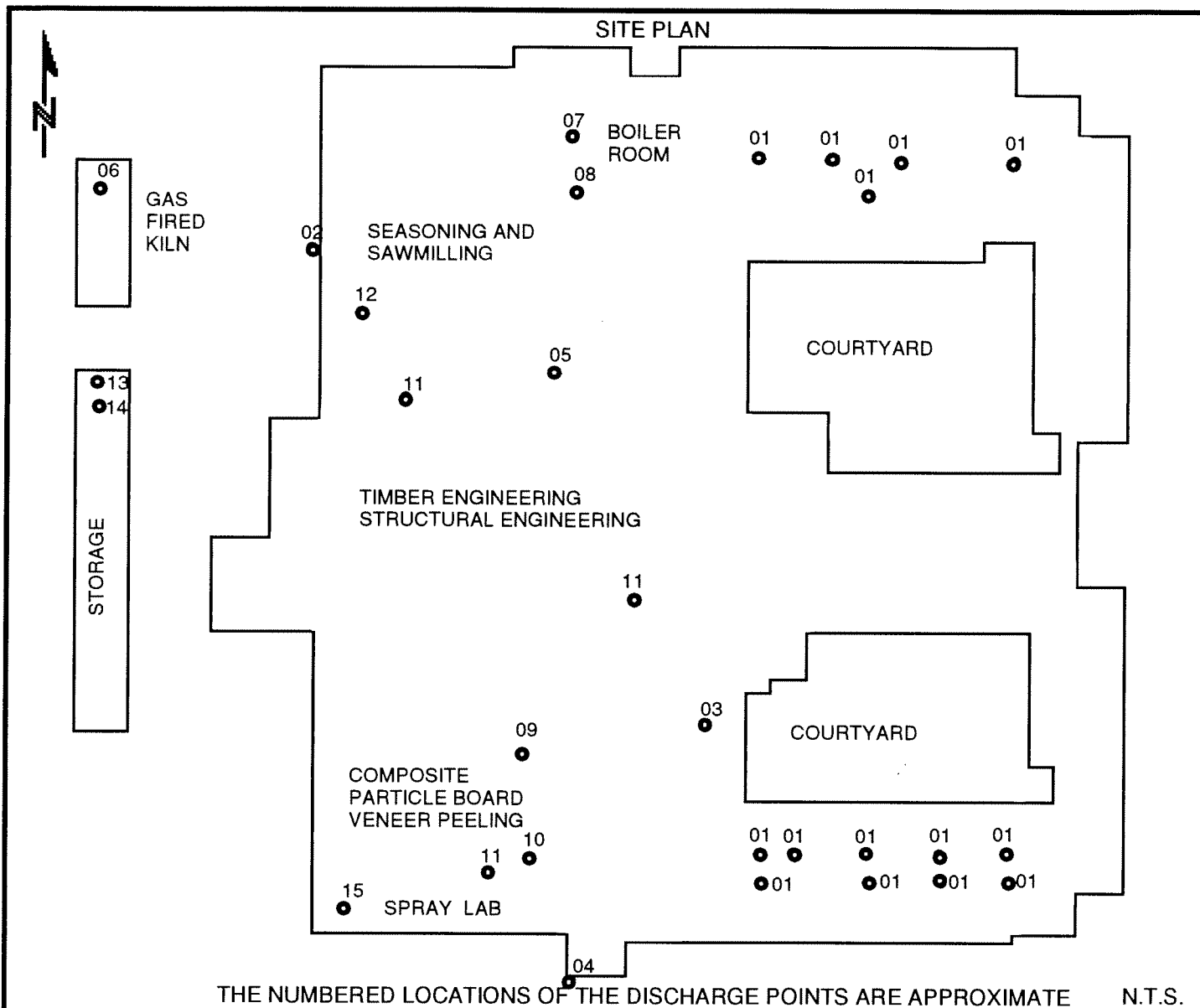
Schedule H Record of Permit Issuance Dates



Greater Vancouver Regional District

4330 KINGSWAY, BURNABY, BRITISH COLUMBIA, V5H 4G8 TELEPHONE 436-6777

GVRD AIR QUALITY MANAGEMENT BYLAW No. 725



March 11, 1994

ASSISTANT AIR QUALITY DIRECTOR

SCHEDULE A TO PERMIT NO. GVA0481

SCHEDULE B - PAGE 1
PERMIT No. GVA0481

A. OBJECTIVES AND AMENDMENTS

Ambient air quality guidelines and objectives are prescribed under provisions of applicable legislation. If the level of air quality as prescribed by these criteria is exceeded, the conditions of this Permit may be revised, in order that the desired air quality can be maintained. This Permit may also be amended for other reasons, 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, Air Quality and Source Control Department at 436-6777 (24 hours), at the first available opportunity.

No discharge that has bypassed control works is authorized unless the Air Quality 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 Air Quality Director may at 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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SCHEDULE B - PAGE 2
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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 H of this Schedule B, such that the Air Quality Director determines that air pollution has occurred.

F. 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.

mg/m ³ x 0.000437	=	gr/cf
m ³ /min x 35.3	=	cf/min
kg/m ³ x 0.0624	=	lbs/cf
kg/L x 10.0	=	lbs/gal
mg/m ³ x 24.0/M	=	ppm (by volume)
GJ/h x 0.9478	=	MMBTU/h

where

m ³	=	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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G. 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 No. 725 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 years 1993 - 1994.
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.

H. DESCRIPTION OF DISCHARGE SITE

The land from which the air contaminants are discharged is described as "Parcel Identifier 015-940-357 District Lot 4805, Except: Portions in Plan 9301 and Statutory Right of Way Plan 20570".

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SCHEDULE C - PAGE 1
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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 Air Quality Director. The need for increased or decreased monitoring may be reviewed periodically by the Air Quality Director.

EMISSION NUMBER	DUE DATE(S)	REQUIREMENT(S)
General	March 31, 1994 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, 1994 and annually thereafter	Written report detailing the types and amounts of fuel burned in the preceding calendar year.
General	March 31, 1994 and annually thereafter	Written report detailing the types, amounts and end use of organic solvents and organic solvent - containing materials used in the preceding calendar year.

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

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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	14 Fume Hoods	14 Stacks
02	Dust Control #1 (Carpenter Shop)	Baghouse Exhaust
03	Dust Control #2 (Power Tools)	Baghouse Exhaust
04	Dust Control #3	Baghouse Exhaust
05	Machine Shop Exhaust	Stack
06	Kiln	Stack
07	Steam Boiler #1	Stack
08	Steam Boiler #2	Stack
09	Steam Press Exhaust Fan	Stack
10	Retort Exhaust Fan	Stack
11	Welding Station #1, #2, #3	Three Stacks
12	Paint Spray Booth	Stack
13	Chemical Storage Room	Wall Vent
14	Flammable Chemical Storage Room	Wall Vent
15	Electrostatic/Non-Electrostatic Spray Coating System	Stack

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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 m ³ /min	DURATION hours/day	FREQUENCY days/week	
01	433	24	7	
02	183	8	5	
03	71	8	5	
04	35	8	5	
05	28	8	5	
06	5	24	5	
07	8	8	5	
08	8	8	5	
09	121	8	5	
10	53	8	5	
11	45	8	5	
12	200	8	5	
13	6	24	7	
14	6	24	7	
15	170	8	5	

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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
01, 09, 10 & 12	Chemical Contaminants	See notes	The maximum allowable emission concentration (EC) for each emitted chemical contaminant with a Threshold Limit Value (TLV) is such that the sum of the individual EC/TLV ratios for all such contaminants in any single emission source is less than 10.
06	Combustion Products	See notes	Typical products of combustion of natural gas to a maximum 0.9478 GJ/h (1.0 MMBTU/h).
07 & 08	Combustion Products	See notes	Typical products of combustion of natural gas to a maximum of 1.587 GJ/h (1.674 MMBTU/h) each.
02, 03 & 04	Particulate matter	50 mg/m ³	
05	Particulate matter	120 mg/m ³	
01, 09, 10, 11, 12, 13 & 14	Odour	See notes	None past the plant boundary such that the Air Quality Director determines that air pollution has occurred.
15	Antisapstain Chemicals	7 mg/sec	Only antisapstain chemicals, as defined in the Antisapstain Chemical Waste Control Regulation, or Antisapstain Chemicals that have been registered by Agriculture Canada and have received prior written authorization from the Air Quality Director are authorized for use.

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SCHEDULE F - PAGE 2
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EMISSION NUMBER	PARAMETER	RESTRICTION	NOTES
02, 03, 04,	Opacity	10 percent	May be exceeded for a total of 3 min/hr to a maximum of 30 percent.
05 & 11	Opacity	10 percent	
11	Particulate Matter	50 mg/m ³	As welding fumes.

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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 Air Quality Director may require that further works be installed, if the existing works, in 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 Air Quality Director.

Where the Air Quality 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
01	Completed	Good operating practices.
02	Completed	Baghouse and related appurtenances, together with good operating practices.
03	Completed	Baghouse and related appurtenances, together with good operating practices.
04	Completed	Baghouse and related appurtenances, together with good operating practices.
05	Completed	Good operating practices.
06	Completed	Firing of the kiln with natural gas, using good combustion practices and operating procedures.
07	Completed	Firing of the boiler with natural gas, using good combustion practices and operating procedures.
08	Completed	Firing of the boiler with natural gas, using good combustion practices and operating procedures.
09	Completed	Good operating practices.
10	Completed	Good operating practices.

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EMISSION NUMBER	COMPLETION DATE	DESCRIPTION OF WORKS/PROCEDURES
11	Completed	Good operating practices.
12	Completed	Paper filtration and related appurtenances, together with good operating practices.
13	Completed	Good operating practices.
14	Completed	Good operating practices.
15	Completed	Mist eliminator 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
March 11, 1994	Issuance	Face, Schedules A, B, C, D, E, F, G & H

March 11, 1994


ASSISTANT AIR QUALITY DIRECTOR