



Policy & Planning Department
Tel. 604 432-6375 Fax 604 436-6707

AMENDING DOCUMENT

Under the provisions of the
Greater Vancouver Regional District Air Quality Management Bylaw No. 937, 1999,

AIR QUALITY MANAGEMENT PERMIT NUMBER GVA0426
issued June 8, 2001 and last amended July 4, 2003

in the name of Air Canada
located at 6001 Grant McConachie Way, Richmond, BC

is amended, subject to the terms and conditions listed below:

Effective Date: SEP 23 2005

Schedule C, Emission Number 29, Due Date(s): Delete text "September 30, 2001 and annually thereafter" and replace with new text "September 30, 2006 and annually thereafter."

Schedule H, Record of Permit Issuance: Add new text under the following headings:

Date	Action	Sections Affected
SEP 23 2005	Amended	Schedule C

All other terms and conditions prescribed in Permit GVA0426 remain unchanged.

SEP 23 2005
Amendment Date:

DISTRICT DIRECTOR



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

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

AMENDMENT
to
Permit No. GVA0426

Issued under the provisions of the
GVRD Air Quality Management Bylaw No. 937, 1999

to

Air Canada
6001 Grant McConachie Way
Richmond, BC

Effective July 4, 2003, Permit GVA0426 is amended as follows:

Schedule C

The requirement to measure the discharge rate and concentration of hexavalent and total chromium at emission source No. 29 has been suspended for 2003.

All other terms and conditions of Permit GVA0426 remain in effect.

Issued June 8, 2001
Last Amended July 4, 2003


ASSISTANT DISTRICT DIRECTOR



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 Air Quality Management Bylaw No. 937, 1999)

AIR CANADA

IS AUTHORIZED TO DISCHARGE AIR CONTAMINANTS
FROM AN AIRCRAFT OVERHAUL & MAINTENANCE FACILITY
LOCATED AT 6001 GRANT McCONACHIE WAY,
RICHMOND, B.C. V7B 1K3

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 June 8, 2001.


ASSISTANT DISTRICT DIRECTOR

PERMIT NUMBER GVA0426

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

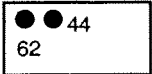
Schedule F Authorized Discharge Criteria

Schedule G Authorized Works and Procedures

Schedule H Record of Permit Issuance Dates

SITE PLAN

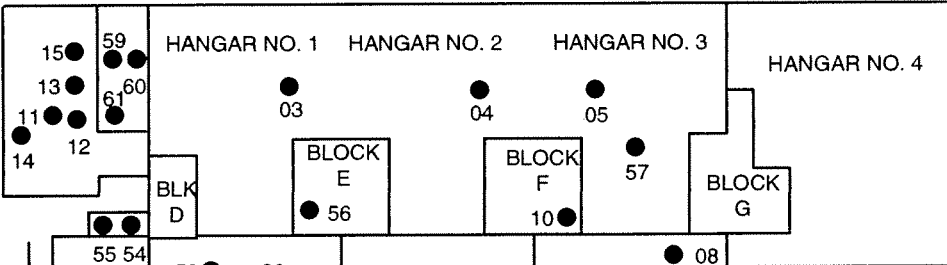
WASTE TREATMENT PLANT



PAINT SPRAY BOOTH



BLOCK B



CHEMICAL STORAGE

BLOCK M

BLOCK H

BLOCK J

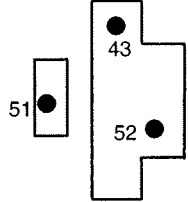
BLOCK K

BLOCK L

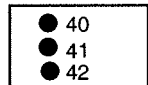
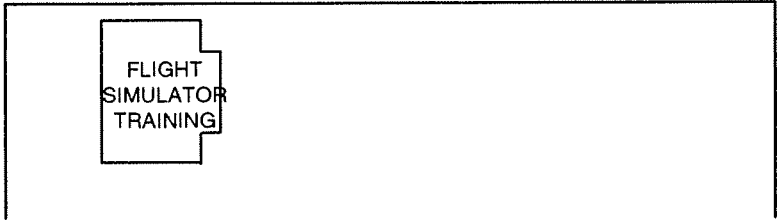
FLIGHT KITCHEN

PLATING SHOP

JET ENGINE TEST CELLS



DRIVEWAY



UTILITIES

THE NUMBERED LOCATIONS OF THE DISCHARGE POINTS ARE APPROXIMATE N.T.S.

LOCATION MAP



NORTH SERVICE RD.

GRANT McCONACHIE WAY

MILLER RD.

SEA ISLAND

ARTHUR LAING BRIDGE

June 8, 2001

ASSISTANT DISTRICT DIRECTOR

SCHEDULE B - PAGE 1
to PERMIT GVA0426

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, Policy and Planning Department at 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 his discretion stipulate limits for emission of contaminants from these sources in the Permit at a future date under provisions of the Bylaw.

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE B - PAGE 2
to PERMIT GVA0426

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 his discretion stipulate further limits for emission of contaminants from these sources in the Permit at a future date under provisions of the Bylaw.

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.

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

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE B - PAGE 3
to PERMIT GVA0426

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. Unless otherwise specified gaseous volumes are corrected to dry conditions of 20° Celsius & 760mm Hg.
3. Unless otherwise specified particulate matter from combustion sources is corrected to 12% CO₂.
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 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 2000.
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 "that part of Lot 19, Section 24, Block 5 North, Range 7 West, Plan, and part of Lot 17, Section 19, Block 5 North, Range 6 West, and of Section 24, Block 5 North, Range 7 West, New Westminster District, Registered Plan 28490, all as shown on heavy outline on sketch plan BC1701(B)".

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE C - PAGE 1
to PERMIT GVA0426

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 DATE(S)	REQUIREMENT(S)
General	March 31, 2002 and annually thereafter	Written report detailing the types and amounts of fuel burned in the preceding calendar year.
General	March 31, 2002 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.
29	September 30, 2001 and annually thereafter	The measured discharge rate and concentration of hexavalent and total chromium in the emission.

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 the most recent amendment of the "GVRD Stationary Emission Testing Requirements" manual issued on November 1994.

The Permittee shall provide the Greater Vancouver Regional District, Policy and Planning Department with a minimum of three days advance notification before emission measurements are conducted for the purpose of complying with Permit requirements. All field data and calculations collected for all testing conducted in accordance with such compliance determination must be submitted to 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.

Any variance from these procedures must receive prior approval from the District Director.

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

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE D - PAGE 1
to PERMIT GVA0426

The authorized emission sources and discharge points located approximately as shown on Schedule A are:

EMISSION NUMBER	EMISSION SOURCE	DISCHARGE POINT
01	Varsol booth in the accessory shop (Fan GF-43)	Wall vent
02	Varsol booth in the accessory shop (Fan GF-44)	Wall vent
03	Ventilation of aircraft fuel tanks in Bay 1 (Fan GF-110)	Stack
04	Ventilation of aircraft fuel tanks in Bay 2 (Fan GF-111)	Stack
05	Ventilation of aircraft fuel tanks in Bay 3 (Fan GF-113)	Stack
06	Proceco typhoon spray washer and trichloroethylene vapour degreaser in the air frame cleaning shop (Fan GF-30)	Roof vent
08	Proceco wheel washer and varsol booth in the air frame cleaning shop (Fan GF-47)	Stack
09	Metallurgical laboratory fume hood in the Welding Shop (Fan NF-801)	Stack
10	Varsol spray booth in the hangar tool and equipment shop	Stack

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE D - PAGE 2
to PERMIT GVA0426

EMISSION NUMBER	EMISSION SOURCE	DISCHARGE POINT
11	Paint room in the building maintenance shop (Fan GF-18)	Stack
12	Paint storage and mix room in the building maintenance shop (Fan GF-17)	Stack
13	Paint booth and paint mixing room in the automotive garage shop (Fan GF-16)	Stack
14	Welding booth in the automotive garage shop	Stack
15	Battery charging area in the automotive garage shop (Fan GF-15)	Stack
16	Binks varsol spray booth in the jet engine cleaning shop (Fan N-2)	Stack
17	Binks varsol spray booth in the jet engine cleaning shop (Fan N-3)	Stack
18	Cleaning tanks in the jet engine cleaning shop (Fan F-3)	Stack
19	Varsol booth in the jet engine overhaul shop (Fan GF-107)	Stack
22	Epoxy hood for Engine Shop (Fan F3-7C)	Wall vent

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE D - PAGE 3
to PERMIT GVA0426

EMISSION NUMBER	EMISSION SOURCE	DISCHARGE POINT
24	Alkali fume collection system in the plating shop (Fan F3-24)	Stack
25	Acid fume collection system in the plating shop (Fan EF-4)	Stack
26	CDA sandblasting unit in the plating shop	Stack
27	Organic chemical storage (Fan EF-10)	Stack
28	Trichloroethylene vapour degreaser in the plating shop (Fan EF-10)	Stack
29	Chromic acid plating baths in the plating shop (Fan EF-1)	Scrubber exhaust
31	Laboratory fume hood in the plating shop (Fan GF-104)	Stack
32	Coates electric heat treating oven in the plating shop (Fan N-9)	Stack
33	Varsol spray booth in the radio shop cleaning room (Fan GF-49)	Wall vent
34	Five welding booths and metal fabrication shop in the welding shop (Fan GF-51)	Stack
35	Devilbis plasma spray booth and Binks plasma spray booth in the welding shop (Fan: Plasma Fan)	Stack

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE D - PAGE 4
to PERMIT GVA0426

EMISSION NUMBER	EMISSION SOURCE	DISCHARGE POINT
37	Resins hood in the plastics shop (Fan GF-39)	Wall vent
38	Resin curing oven in the plastics shop (Fan GF-40)	Wall vent
39	Plastiformer, curing oven and resins stripping bench in plastics shop (Fan GF-106)	Roof vent
40	400 H.P. Cleaver Brooks firetube boiler (A)	Stack
41	400 H.P. Cleaver Brooks firetube boiler (B)	Stack
42	400 H.P. Cleaver Brooks firetube boiler (C)	Stack
43	Jet engine test cell	Stack
44	Laboratory fume hood in the waste treatment plant	Stack
47	Plating shop boiler – Cleaver Brooks CBE 700-125	Stack
48	NDT testing in engine overhaul shop (Fan GF-62)	Stack
49	Two fume hoods in fuel nozzle test cell (Fan GF-29)	Stack
50	Varsol cleaning booth in Instrument Shop (Fan GF-49)	Stack

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE D - PAGE 5
to PERMIT GVA0426

EMISSION NUMBER	EMISSION SOURCE	DISCHARGE POINT
51	Auxiliary jet test cell	Stack
52	Jet test cell varsol booth (Fan NF-802)	Stack
53	Clean Room - Composite/Plastic Shop (GF-106)	Stack
54	Cleaver Brooks fire tube boiler No. 6	Stack
55	Cleaver Brooks fire tube boiler No. 7	Stack
56	Toilet Shop (Fan GF-24)	Stack
57	Aircraft fuel tanks in 737 Dock (Fan NF-804)	Stack
58	Brake shop fume hood (Fan GF-30)	Stack
59	Paint shop truck booth (Fan PT-EF-1)	Stack
60	Paint shop car booth (Fan PT-EF-2)	Stack
61	Paint shop mixing room (Fan PT-EF-3)	Stack
62	Chemical Waste Treatment Plant Process (Fan NF-803)	Stack
63	Two flight kitchen Bryan boilers	Two stacks

June 8, 2001

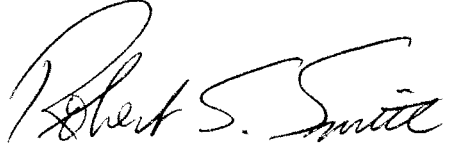

ASSISTANT DISTRICT DIRECTOR

**SCHEDULE E - PAGE 1
to PERMIT GVA0426**

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	91	18	5	
02	54	24	7	
03	56	4	7	
04	52	4	7	
05	68	4	7	
06	100	8	7	
08	85	8	7	
09	15	8	7	
10	60	2	7	
11	23	24	7	
12	23	24	7	
13	425	18	5	
14	69	24	7	
15	322	24	7	
16	54	16	7	
17	49	16	7	
18	915	24	7	
19	205	8	7	

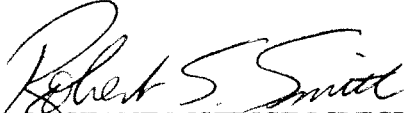
June 8, 2001


 ASSISTANT DISTRICT DIRECTOR

SCHEDULE E - PAGE 2
to PERMIT GVA0426

EMISSION NUMBER	MAXIMUM AUTHORIZED RATE OF DISCHARGE			NOTES & ADDITIONAL REQUIREMENTS
	FLOW m ³ /min	DURATION hours/day	FREQUENCY days/week	
22	340	16	7	
24	340	24	7	
25	554	24	7	
26	46	24	7	
27	3	24	7	
28	5	24	7	
29	310	24	7	
31	12	8	5	
32	8	24	7	
33	27	17	7	
34	218	15	5	
35	566	16	7	
37	54	15	7	
38	18	15	7	
39	329	24	7	
40	79	24	7	
41	79	24	7	
42	79	24	7	
43	78000	See notes	See notes	That required for jet engine testing

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE E - PAGE 3
to PERMIT GVA0426

EMISSION NUMBER	MAXIMUM AUTHORIZED RATE OF DISCHARGE			NOTES & ADDITIONAL REQUIREMENTS
	FLOW m ³ /min	DURATION hours/day	FREQUENCY days/week	
44	24	24	7	
47	24	24	7	
48	45	24	7	
49	100	16	7	
50	27	17	7	
51	600	See notes	See notes	That required for jet engine testing
52	77	8	7	
53	80	16	7	
54	8	24	7	
55	8	24	7	
56	94	24	7	
57	12	4	7	
58	20	8	7	
59	340	16	7	
60	453	16	7	
61	51	16	7	
62	7	24	7	
63	7	24	7	

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE F - PAGE 1
to PERMIT GVA0426

The authorized maximum discharge criteria for emission sources described in Schedule D are:

EMISSION NUMBER	PARAMETER	RESTRICTION	NOTES
01 - 06, 08 - 13, 16 - 19, 22, 24, 25, 27, 28, 31 - 35, 37 - 39, 44, 48 - 50, 52, 53, 56 - 62	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.
29	Chromium (VI) Compounds	0.5 mg/m ³	Expressed as Cr.
40, 41, 42,	Combustion Products	See notes	Typical products of natural gas combustion at a maximum firing rate of 17.62 GJ/h (16.7 MMBTU/h) each.
47	Combustion Products	See notes	Typical products of natural gas combustion at a maximum firing rate of 5.52 GJ/h (5.23 MMBTU/h).
43, 51	Combustion Products	See notes	Typical products of jet fuel combustion.
54 & 55	Combustion Products	See notes	Typical products of natural gas combustion at a maximum firing rate of 1.77 GJ/h for each unit.
63	Combustion Products	See notes	Typical products of natural gas combustion at a maximum firing rate of 1.58 GJ/h (1.5MMBTU/h) for each boiler.

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE F - PAGE 2
to PERMIT GVA0426

EMISSION NUMBER	PARAMETER	RESTRICTION	NOTES
01 - 06, 09 - 13, 18, 19, 22, 24, 25, 27, 28, 31 - 33, 37 -39, 44, 48 - 50, 52, 53, 56 - 62	Odour	See notes	None past the plant boundary such that the District Director determines that pollution has occurred.
13, 14, 34, 35, 59, 60 & 62	Opacity	10 Percent	
40, 41, 42	Opacity	10 Percent	May be exceeded 3 min/hr. during fuel oil standby firing only.
26	Opacity	10 Percent	May be exceeded 3 min/hr. to maximum 30 percent.
26	Particulate Matter	50 mg/m ³	
14, 34	Particulate Matter	50 mg/m ³	As welding fumes.
09, 32, 35,	Particulate Matter	120 mg/m ³	
40, 41, 42	Particulate Matter	150 mg/m ³	During fuel oil standby firing only.
15	Sulphuric Acid	10 mg/m ³	
40, 41, 42	Sulphur Oxides	800 mg/m ³	Expressed as SO ₂ . During fuel oil standby firing only.

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE G - PAGE 1
to PERMIT GVA0426

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 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
01, 02, 08, 10, 13, 16, 17, 19	Completed	Mesh filters and related appurtenances, together with good operating practices.
03 - 06, 09, 11, 12, 14, 15, 18, 22, 24, 25, 27, 28, 31 - 34, 37 - 39, 44, 48 - 50, 52, 53, 56 - 58 & 61	Completed	Good operating practices.
35	Completed	Water curtain and baffle plate in plenum together with good operating practices.
26	Completed	Baghouse and related appurtenances, together with good operating practices.
29	Completed	Allanco chromic acid eliminator (Model ALC G-275 2500 CB) and related appurtenances, together with good operating practices.
40, 41, 42	Completed	The firing of the boilers with natural gas, (#2 fuel oil standby) using good combustion practices and operating procedures.
43 & 51	Completed	The firing of the engines and auxiliary engines with jet fuel, using good combustion practices and operating procedures.

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE G - PAGE 2
to PERMIT GVA0426

EMISSION NUMBER	COMPLETION DATE	DESCRIPTION OF WORKS/PROCEDURES
54, 55 & 63	Completed	The firing of the boilers with natural gas, using good combustion practices and operating procedures.
59 & 60	Completed	Filters and related appurtenances, together with good operating practices.
62	Completed	The packed tower scrubber and related appurtenances, together with good operating practices.
47	June 30, 2000	The firing of the boiler with natural gas, using a low NOx burner (Power Flame Model LNIC4-6-30C) and related appurtenances together with good combustion practices and operating procedures.

June 8, 2001


ASSISTANT DISTRICT DIRECTOR

SCHEDULE H - PAGE 1
to PERMIT GVA0426

RECORD OF PERMIT ISSUANCE

DATE	ACTION	SECTIONS AFFECTED
December 14, 1992	Issued	Face, Schedules A, B, C, D, E, F, G & H
September 17, 1993	Amended	Face, Schedules A, B, C, D, E, F, G & H
December 31, 1993	Amended	Face, Schedules A, B, C, D, E, F, G & H
July 14, 1995	Amended	Face, Schedules A, B, C, D, E, F, G & H
September 5, 1997	Amended	Face, Schedules A, B, C, D, E, F, G & H
March 24, 2000	Amended	Face, Schedules A, B, C, D, E, F, G & H
June 8, 2001	Amended	Face, Schedules A, B, C, D, E, F, G & H

June 8, 2001


ASSISTANT DISTRICT DIRECTOR