



*Policy & Planning Department*  
Telephone: 604-432-6375 Fax: 604-436-6970

# PERMIT GVA1027

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

CANADA METAL (PACIFIC) LTD.

IS AUTHORIZED TO DISCHARGE AIR CONTAMINANTS  
FROM A METAL AND ALLOY MELTING AND CASTING OPERATION  
LOCATED AT 7733 PROGRESS WAY, DELTA BC V4G 1A3

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

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R. H. ROBB, DISTRICT DIRECTOR

**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

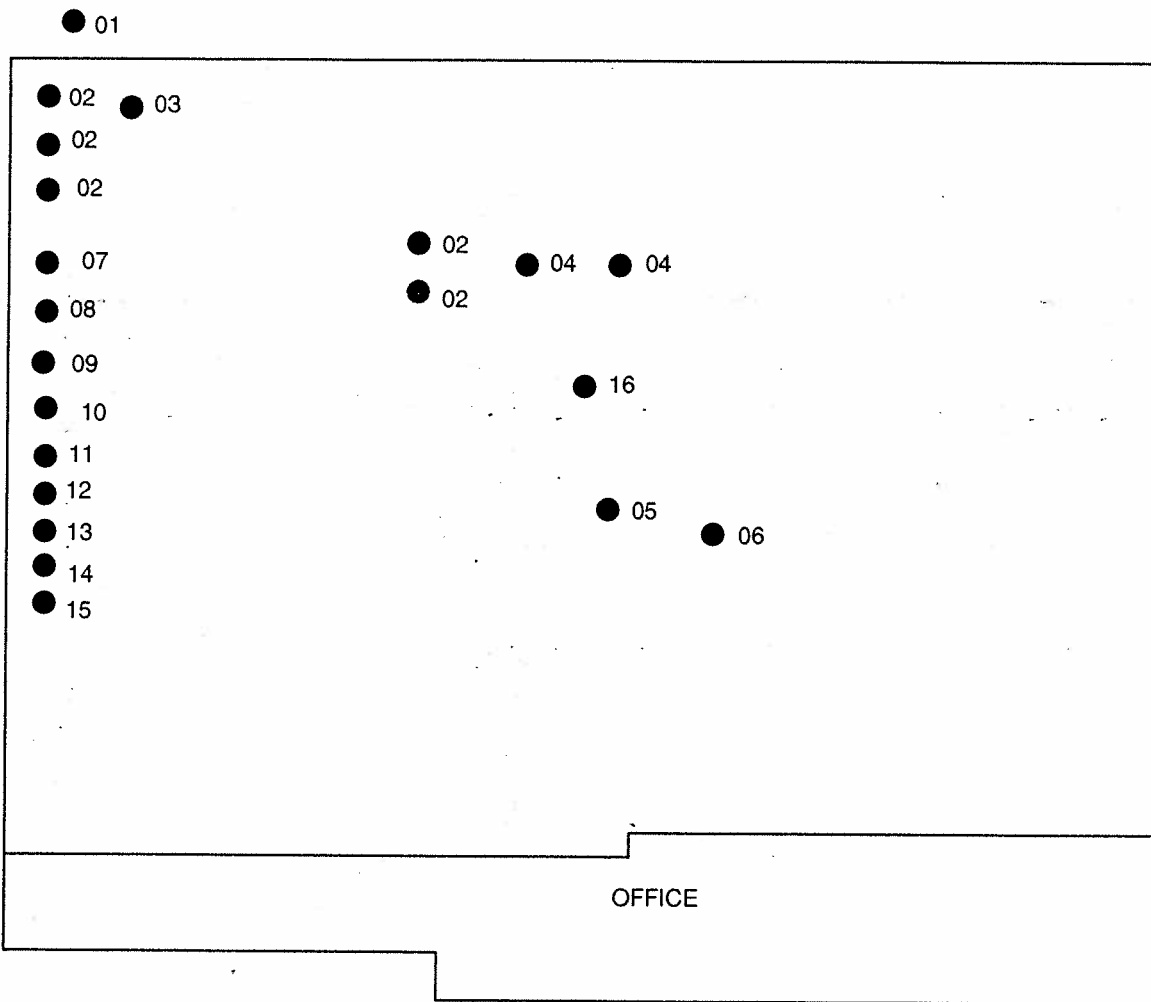
Schedule F.....Authorized Discharge Criteria

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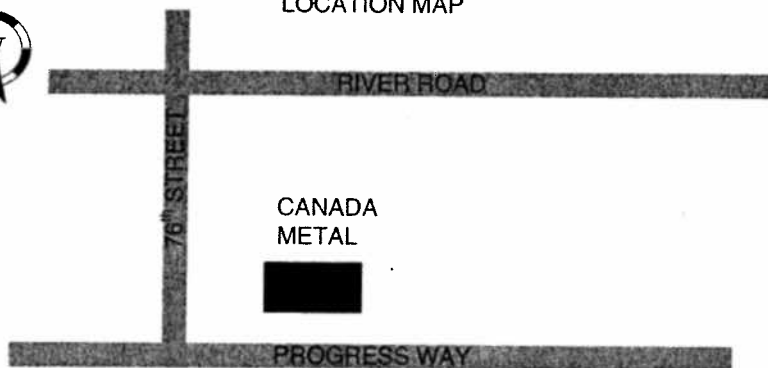
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SITE PLAN



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

LOCATION MAP



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**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**

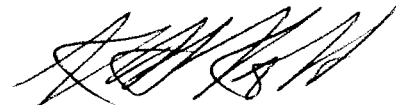
An emergency or other condition may prevent the continuous utilization of the above authorized works and procedures, or may result in a discharge of air contaminants which is not authorized by this Permit. If such a situation occurs, the Permittee shall report the circumstances of this event to the Greater 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.

Fugitive particulate matter shall be suppressed such that dustfall at the site boundary will compare favorably to a value of 1.75 mg/dm<sup>2</sup>/day when consideration is given to:

1. The relative contribution of dustfall sources on site and off site to measured ambient values;
2. The sensitivity of the receiving environment;
3. Other pertinent information.

**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

$\text{m}^3 =$  cubic metre  
 $\text{min} =$  minute  
 $\text{mg} =$  milligram  
 $\text{cf} =$  cubic feet  
 $\text{s} =$  second  
 $\text{lb} =$  pound  
 $\text{kg} =$  kilogram  
 $\text{gal} =$  gallon  
 $\text{L} =$  litre  
 $\text{M} =$  molecular weight  
 $\text{gr} =$  grain  
 $\text{ppm} =$  parts per million  
 $\text{GJ} =$  GigaJoule  
 $\text{MMBTU} =$  Million British Thermal Unit  
 $\text{h} =$  hour

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**H STANDARD CONDITIONS AND DEFINITIONS**

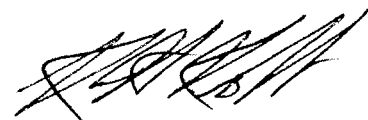
Except where otherwise indicated, the following standard conditions and definitions apply to this Permit.

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 (unless otherwise stated).
4. Opacity is measured at the point of maximum density, nearest the discharge point, based on a minimum six minute average.
5. Opacity measurements exclude the effect of condensed, uncombined water droplets.
6. Definitions in the Environmental Management Act and GVRD Air Quality Management Bylaw current at the time of issuance of this Permit apply to terminology used in this Permit. If the Permit is subsequently amended, definitions in the Environmental Management Act and GVRD Air Quality Management Bylaw current at the time of amendment shall 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 2006.
8. Any production, storage, transportation, handling, treatment, processing or ownership of a hazardous waste must comply with the requirements of the Environmental Management Act Hazardous Waste Regulation (BC Reg. 63/88).

**I DESCRIPTION OF DISCHARGE SITE**

The land from which the air contaminants are discharged is described as: Municipality of Delta, P.I.D. 002-574-195, Lot 88, District Lot 120, Group 2, New Westminster District, Plan 60653.

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**SCHEDULE C - Page 1  
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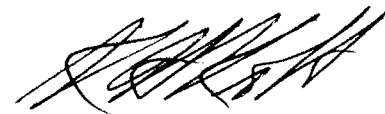
This Schedule describes emission monitoring, sampling and reporting requirements.

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

<b>EMISSION NUMBER</b>	<b>DUE DATES</b>	<b>REQUIREMENTS</b>
01	March 31, 2007 and annually thereafter	Written report indicating inspection frequency, bag condition and action taken or proposed to solve any problems detected for the baghouse described in Schedule G of this Permit.
01	March 31, 2007	Written report detailing the measured discharge rate and concentration of particulate matter and heavy metals in the emission(s).
General	March 31, 2007 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, 2007 and annually thereafter	Written report detailing the types and amounts of fuel burned in the preceding calendar year.
General	March 31, 2007	Written plan for determining the concentration of lead and other heavy metals in the soils of surrounding farm lands over a three year time period, including proposed sampling site(s) and sampling frequency.

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 Environment, 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:

<b>EMISSION NUMBER</b>	<b>EMISSION SOURCE</b>	<b>DISCHARGE POINT</b>
01	Four lead melting pots, one tin and one antimony melting pot, and two soldering stations	Baghouse Exhaust(s)
02	Five natural gas fired melting pot heaters	Stack(s)
03	Natural gas fired melting pot heater	Stack(s)
04	Aluminum and Zinc natural gas fired melting furnace	Stack(s)
05	Hot chamber die casting machine	Stack(s)
06	Natural gas fired melting pot heater	Stack(s)
07	Natural gas fired melting pot heater	Stack(s)
08	Natural gas fired melting pot heater	Stack(s)
09	Natural gas fired melting pot heater	Stack(s)
10	Natural gas fired melting pot heater	Stack(s)
11	Natural gas fired melting pot heater	Stack(s)
12	Natural gas fired melting pot heater	Stack(s)
13	Natural gas fired melting pot heater	Stack(s)
14	Natural gas fired melting pot heater	Stack(s)
15	Natural gas fired melting pot heater	Stack(s)
16	Aluminum and Zinc natural gas fired melting furnace	Stack(s)

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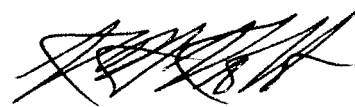
GREATER VANCOUVER REGIONAL DISTRICT

**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	30	24	7	
02	20	24	7	
03	10	24	7	
04	30	24	7	
05	6	24	7	
06	15	24	7	
07	15	24	7	
08	15	24	7	
09	15	24	7	
10	15	24	7	
11	15	24	7	
12	15	24	7	
13	15	24	7	
14	15	24	7	
15	15	24	7	
16	15	24	7	

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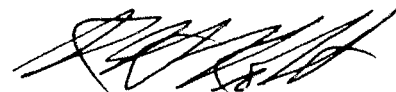
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The authorized maximum discharge criteria for emission sources described in Schedule D are:

<b>EMISSION NUMBER</b>	<b>PARAMETER</b>	<b>RESTRICTION</b>	<b>NOTES</b>
01	Antimony	5 mg/m <sup>3</sup>	
01	Lead	1.5 mg/m <sup>3</sup>	
01	Particulate Matter	23 mg/m <sup>3</sup>	
01	Tin	20 mg/m <sup>3</sup>	
01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16	Opacity	10%	
01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16	Odour	See notes	None past the plant boundary such that the District Director determines that pollution has occurred.
02, 03	Combustion Products	See notes	Typical products of natural gas combustion at a maximum firing rate of 0.42 GJ/h.
05, 06, 10, 12	Combustion Products	See notes	Typical products of natural gas combustion at a maximum firing rate of 0.74 GJ/h.
07, 09, 11, 13, 14, 15	Combustion Products	See notes	Typical products of natural gas combustion at a maximum firing rate of 1.06 GJ/h.
16	Combustion Products	See notes	Typical products of natural gas combustion at a maximum firing rate of 1.27 GJ/h.
04	Combustion Products	See notes	Typical products of natural gas combustion at a maximum firing rate of 3.8 GJ/h.

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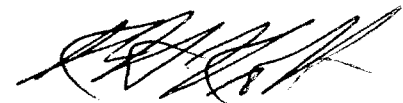
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The authorized maximum discharge criteria for emission sources described in Schedule D are:

<b>EMISSION NUMBER</b>	<b>PARAMETER</b>	<b>RESTRICTION</b>	<b>NOTES</b>
08	Combustion Products	See notes	Typical products of natural gas combustion at a maximum firing rate of 8.44 GJ/h.

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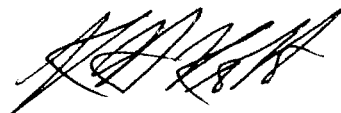
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The authorized emission control works and procedures to control the discharge of air contaminants from the emission sources described in Schedule D are indicated below. The District Director may require that further works be installed, if the existing 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.

<b>EMISSION NUMBER</b>	<b>COMPLETION DATE</b>	<b>DESCRIPTION OF CONTROL WORKS/PROCEDURES</b>
01	Completed	Baghouse and related appurtenances together with good operating practices.
04, 16	Completed	Firing of the aluminum and zinc melting furnace with natural gas using good combustion practices and operating procedures.
05	Completed	Firing of the hot chamber die casting machine with natural gas using good combustion practices and operating procedures.
03, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15	Completed	Firing of the melting pot heater with natural gas using good combustion practices and operating procedures.

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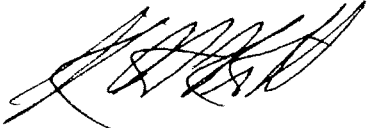
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**SCHEDULE H - Page 1  
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**RECORD OF PERMIT ISSUANCE**

<b>DATE</b>	<b>ACTION</b>	<b>SECTIONS AFFECTED</b>
NOV 27 2006	ISSUANCE	Face, Schedules A, B, C, D, E, F, G & H

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