Forms Package
Air Permit Applications

under GVRD Air Quality Management Bylaw No. 1082, 2008

Metro Vancouver
Legal and Legislative Services Department
Environmental Regulation and Enforcement Division
4330 Kingsway, Burnaby, BC, V5H 4G8
Telephone: (604) 432-6200 Facsimile: (604) 436-6707
Email: regulationenforcement@metrovancouver.org

LIST OF FORMS

MVAQ-A1	Purpose of Application, Business Name and Address
MVAQ-B1	Process Description and Schematic Flow Diagram
MVAQ-C1	Site Plan
MVAQ-D1	Emission Point Summary
MVAQ-D2	Emission Information for Point Sources
MVAQ-D3	Emission Information for Fugitive Sources
MVAQ-D4	Air Quality Dispersion Modelling
MVAQ-D5	Supplemental Information
MVAQ-E1	Notice of Application for an Air Quality Permit
MVAQ-E2	Notice of Application for an Air Quality Permit Amendment
MVAQ-F1	Declaration

Please use these forms in conjunction with the Guidance Document available at

http://www.metrovancouver.org/services/Permits-regulations-enforcement/air-quality/apply-permit/Pages/default.aspx

Please only submit those forms you have completed starting with form MVAQ-A1

MVAQ-A1: PURPOSE OF APPLICATION, BUSINESS NAME AND ADDRESS

A1.	*Purpose *(e.g. to authorize the discharge of air emissions from an anaerobic digester, to amend GVRD permit number WXYZ)* *To authorise the discharge of air emissions from our Industrial Rubber Rebuilding Plant.*	
	*Authorization requested by date *(YYYY-MMM-DD)*	*2017-Jan-31*
	*Authorization requested term (in years) – attach rationale for request	*15 years*

A2.	***Authorization Type** (check all appropriate boxes)		
	Permit ☒ *X*	Approval ☐	Amendment ☐
	Existing Permit or Approval number and expiry date (if applicable) *0255*		

A3.	**Authorized Agent Information** *(complete only if you are an authorized agent for the applicant)*
	Agent's Company Name or First Name, Last Name, and Title
	Address *(street address, city, province, postal code)* *Not applicable.*
	Contact Numbers *Phone (xxx-xxx-xxxx)* *Mobile (xxx-xxx-xxxx)* *Fax (xxx-xxx-xxxx)*
	Email Address

A4.	**Applicant's Authorization for Agent** *(to be signed by an officer of the company)*	
	I/we (applicant) hereby authorize _____ to deal with Metro Vancouver on all aspects of this application.	
	Applicant's Name *Not applicable.*	
	Applicant's Title	

Signature of Applicant (not Agent or Representative) Date (YYYY-MMM-DD)

(Sign this only if you are authorizing an agent or representative to act on your behalf.)

Continued on next page…….

MVAQ-A1: PURPOSE OF APPLICATION, BUSINESS NAME AND ADDRESS

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A5.	**Applicant Information (Name of company seeking authorization, NOT the Agent)**		
	*Company Legal Name *(as registered with the BC Registrar of Companies)* *Weir Canada Inc.*		
	*Incorporation Number *(as registered with the BC Registrar of Companies)* *8826501*		
	*Legal Address *(as registered with BC Registrar of Companies - street address, city, province, postal code)* *2360 Millrace Court, Mississauga, Ontario, Canada L5N 1W2*		
	Mailing Address *(if different from above)*		
	Billing Address *(if different from above)*		
	Contact Numbers *+1.778.303.9962* *(Phone (xxx-xxx-xxxx))*	*(Mobile (xxx-xxx-xxxx))*	*+1.778.545.8351* *(Fax (xxx-xxx-xxxx))*
	*Email Address *ricky.nolan@mail.weir / robert.bourbeau@mail.weir / sarah.biddlecombe@mail.weir*		
	*Results of Corporate Registry Search attached?	YES ☐	NO ☒

A6.	**Technical Contact for this Application** *(Name of person to contact for this application, NOT the agent)*		
	*Contact's First Name, Last Name, Title (and Company if different from Applicant) *Gordon Reusing, Principal*		
	Contact Numbers *+1.519.884.0510 x2333* *(Phone (xxx-xxx-xxxx))*	*+1.519.240.2876* *(Mobile (xxx-xxx-xxxx))*	*+1.519.884.0525* *(Fax (xxx-xxx-xxxx))*
	*Email Address *Gordon.Reusing@ghd.com*		

A7.	**Facility Location and Information**		
	*Facility type and description (describe the primary business activity at the facility) *Industrial Rubber Rebuilding Plant*		
	*NAICS or SIC Code and description	*712020 - Machine Shop* *713034 - Tire Retreading or Recapping*	
	*Facility Latitude *49° 03′ 53″* N	*Facility Longitude *122° 42′ 02″* W	
	*Legal Land Description (Lot/Block/Plan) OR PID/PIN/Crown File No. *Lot 19, Section 29, Township 7 Plan. EPP41342NWD.*		

Continued on next page…….

MVAQ-A1: PURPOSE OF APPLICATION, BUSINESS NAME AND ADDRESS

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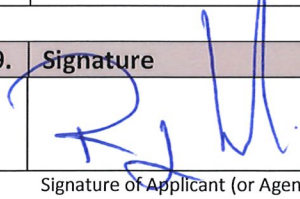
A7.	Facility Location and Information (continued)		
	*Facility Address (civic address e.g., 4321 Kingsway, Burnaby BC V5J 4G8) *18933 34A Avenue, Campbell Heights North, Surrey, British Columbia, Canada V3Z 1A7*		
	*Facility Operator/Site Contact First Name, Last Name and Title *Ricky Nolan, General Manager*		
	Facility Operator/Site Contact Numbers *+1.778.303.9962* *Phone (xxx-xxx-xxxx)*	*+1.604.356.6977* *Mobile (xxx-xxx-xxxx)*	*+1.778.545.8351* *Fax (xxx-xxx-xxxx)*
	*Facility Operator/Site Contact Email Address *ricky.nolan@mail.weir*		

A8.	Other Requirements		
	1. *Is the Applicant the Legal Land Owner?	YES ☐	NO ☒
	2. If the Applicant is not the Legal Land Owner		
	(i) is the Legal Land Owner aware of the proposed discharge?	YES ☒	NO ☐
	(ii) has the Legal Land Owner received a copy of this application?	YES ☒	NO ☐
	3. Land Title documentation attached?	YES ☐	NO ☒
	If NO, indicate why *Legal Land Owner: Beedie SCDC (34A) Holdings (Incorporation No.: BC1012125)* *Contact: Taylor Gallaher, Property Manager, +1.778.899.0211, Taylor.Gallaher@beediegroup.ca*		
	4. Are the changes to your facility classified as a "prescribed reviewable project" pursuant to the Environmental Assessment Act Reviewable Projects Regulation?	YES ☒	NO ☐

A9.	Signature		
			2017-01-24
	Signature of Applicant (or Agent if applicable)		Date (YYYY-MMM-DD)

Weir Minerals - Industrial Processes at New Surrey Manufacturing Facility

May 4, 2016

The following is a description of the main industrial processes that will be performed at the new Weir manufacturing facility in Surrey, BC:

New Fabrications (from Client)

1. Welded steel fittings, vessels and pipework to be rubber lined are received from the client in the receiving area and placed in holding.
2. When ready for rubber lining, the steel fittings, vessels and pipework are taken to the grit blast booth (the dust collector of this booth is emission source 08) to be cleaned by a compressed air/metallic grit stream applied by hand wand.
3. After wiping down, the fittings, vessels and pipework are taken to the rubber adhesive booth (emission source 03) where a coating of rubber adhesive is sprayed on, or applied by brush and roller, to all surfaces to receive rubber lining.
4. After the rubber adhesive has set up, the fittings, vessels and pipework are taken to the rubber lining area where sheet rubber material is hand applied to the adhesive covered surfaces.
5. When the application of sheet rubber is complete, the fittings, vessels and pipework are sealed into one of the large steam autoclaves (steam supplied from boiler - emission source 02) and heat treated to vulcanize (cure) the rubber.
6. After cooling the autoclaves, the fittings, vessels and pipework are removed and taken to the rubber trim and buff room (emission source 07) to have excess rubber trimmed off to provide clean mating surfaces for field assembly of the fittings, vessels and pipework.
7. Once trimmed, the fittings, vessels and pipework are taken to the paint booth (emission source 06) to have exterior surfaces painted.
8. After painting, the fittings, vessels and pipework are taken to the shipping area to be packaged and otherwise prepared for shipping.
9. Once packaged, the fittings, vessels and pipework are loaded onto delivery trucks for shipment back to the client.

New Fabrications (Internal)

1. Raw steel materials (sheet, pipe and plate) are received in the receiving area, and placed in holding.
2. Raw materials are moved to fabrication shop to be cut, shaped, machined and welded (welding exhaust arms - emission sources 09a to 09i) to form custom steel fittings, vessels and pipework.
3. When ready for rubber lining, the steel fittings, vessels and pipework are taken to the grit blast booth (the dust collector of this booth is emission source 08) to be cleaned by a compressed air/metallic grit stream applied by hand wand.
4. After wiping down, the fittings, vessels and pipework are taken to the rubber adhesive booth (emission source 03) where a coating of rubber adhesive is sprayed on, or applied by brush and roller, to all surfaces to receive rubber lining.
5. After the rubber adhesive has set up, the fittings, vessels and pipework are taken to the rubber lining area where sheet rubber material is hand applied to the adhesive covered surfaces.

6. When the application of sheet rubber is complete, the fittings, vessels and pipework are sealed into one of the large steam autoclaves (steam supplied from boiler - emission source 02) and heat treated to vulcanize (cure) the rubber.
7. After cooling the autoclaves, the fittings, vessels and pipework are removed and taken to the rubber trim and buff room (emission source 07) to have excess rubber trimmed off to provide clean mating surfaces for field assembly of the fittings, vessels and pipework.
8. Once trimmed the fittings, vessels and pipework are taken to the paint booth (emission source 06) to have exterior surfaces painted.
9. After painting, the fittings, vessels and pipework are taken to the shipping area to be packaged and otherwise prepared for shipping.
10. Once packaged, the fittings, vessels and pipework are loaded onto delivery trucks for shipment to the client.

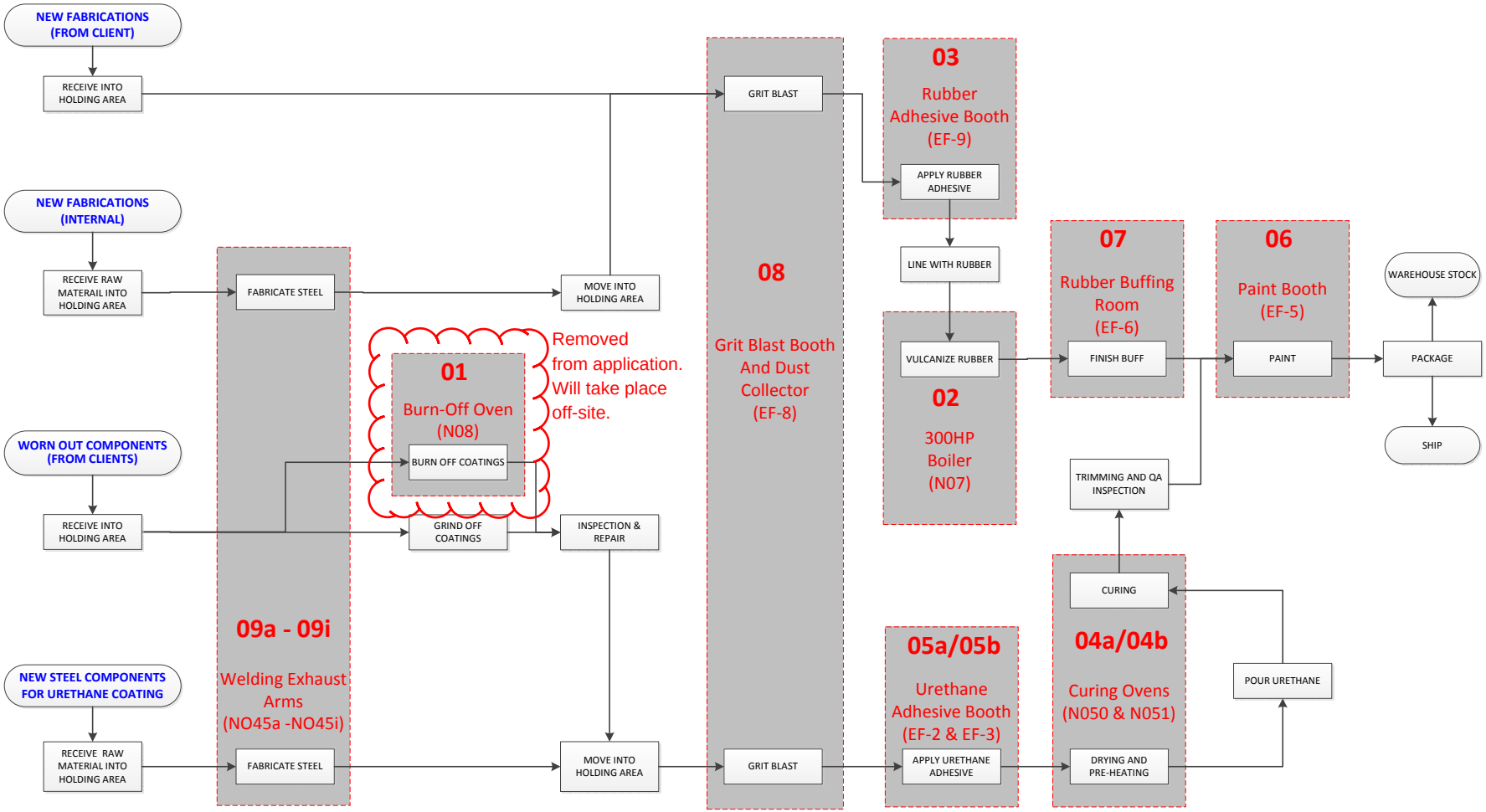
Worn-Out Components from Clients

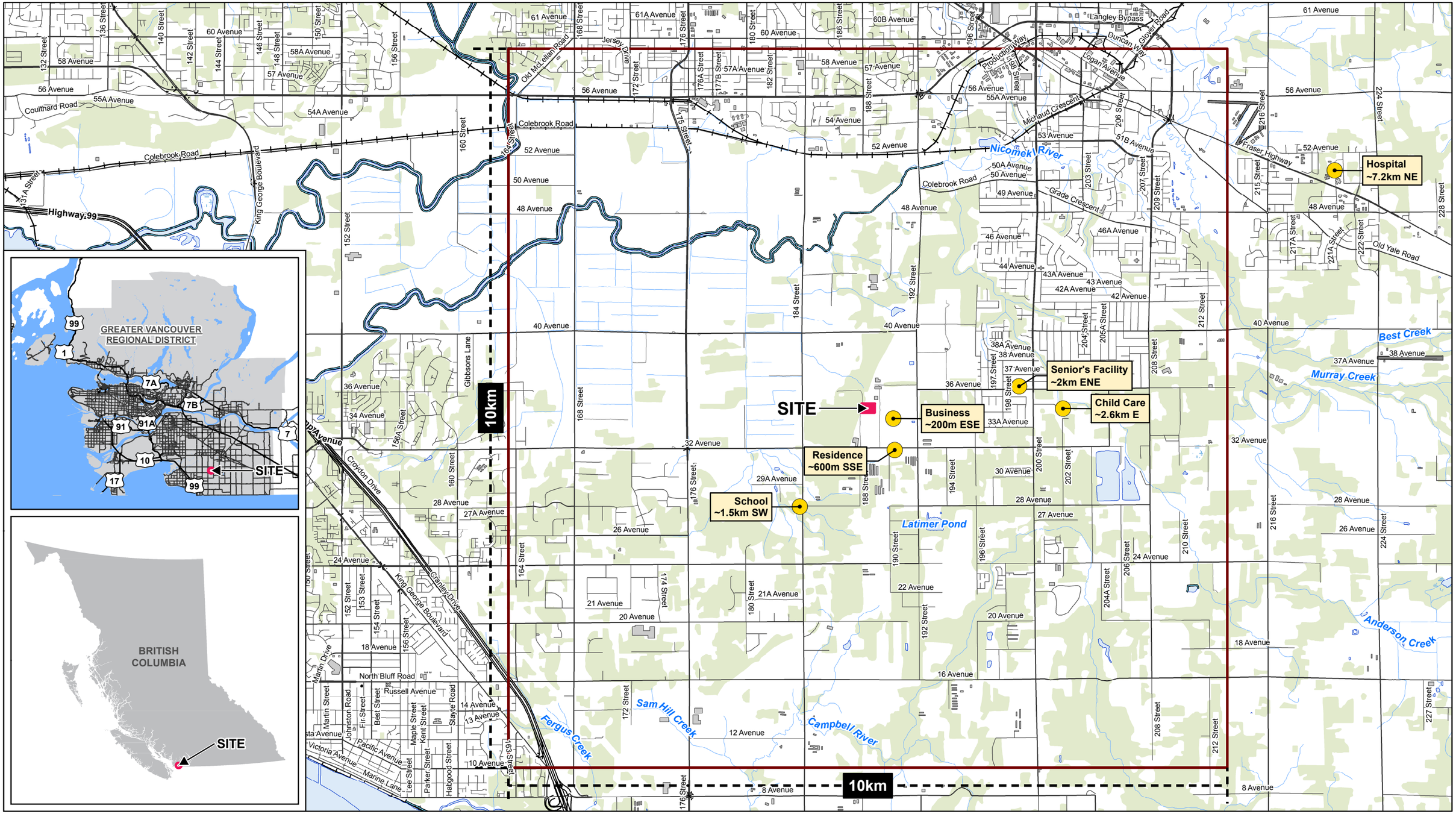
1. Worn-out steel components (pump impellers, casings and welded fittings) to be urethane coated are received from the client in the receiving area and placed in holding.
2. Existing coatings are removed by cutting or rough grinding, or are otherwise removed at an external location.
3. After removing coatings, the components are inspected and repaired in the fab shop if required, then placed in holding.
4. When ready for urethane coating, the components are taken to the grit blast booth (the dust collector of this booth is emission source 08) to be cleaned by a compressed air/metallic grit stream applied by hand wand.
5. After wiping down, the components are taken to the urethane adhesive booth (emission source 05a/05b) where a coating of urethane adhesive is sprayed on, or applied by brush and roller, to all surfaces to receive urethane coating.
6. After the urethane adhesive has set up, the components are taken to the urethane moulding area where they are placed in moulds and then pre-heated in the urethane curing ovens (emission sources 04a/04b).
7. Once pre-heated, the moulds are removed from the curing oven and filled with a liquid urethane mixture.
8. After filling, the moulds are sealed and placed in the curing ovens to heat-cure the liquid urethane mixture into a hard resilient coating.
9. After cooling, the moulds are removed from the ovens, the coated cores removed from the moulds, and excess urethane trimmed off by hand.
10. Once trimmed the components are taken to the paint booth (emission source 06) to have exterior surfaces painted.
11. After painting, the components are taken to the shipping area to be packaged and otherwise prepared for shipping.
12. Once packaged, the components are loaded onto delivery trucks for shipment back to the client.

New Steel Components for Urethane Coating

1. Raw steel materials (sheet, pipe and plate) are received in the receiving area, and placed in holding.
2. Raw materials are moved to fabrication shop to be cut, shaped, machined and welded (welding exhaust arms - emission sources 09a to 09i) to form new steel components (custom steel fittings).
3. When ready for urethane coating, the components are taken to the grit blast booth (the dust collector of this booth is emission source 08) to be cleaned by a compressed air/metallic grit stream applied by hand wand.
4. After wiping down, the components are taken to the urethane adhesive booth (emission source 05a/05b) where a coating of urethane adhesive is sprayed on, or applied by brush and roller, to all surfaces to receive urethane coating.
5. After the urethane adhesive has set up, the components are taken to the urethane moulding area where they are placed in moulds and then pre-heated in the urethane curing ovens (emission sources 04a/04b).
6. Once pre-heated, the moulds are removed from the curing oven and filled with a liquid urethane mixture.
7. After filling, the moulds are sealed and placed in the curing ovens to heat-cure the liquid urethane mixture into a hard resilient coating.
8. After cooling, the moulds are removed from the ovens, the coated cores removed from the moulds, and excess urethane is trimmed off by hand.
9. Once trimmed the components are taken to the paint booth (emission source 06) to have exterior surfaces painted.
10. After painting, the components are taken to the shipping area to be packaged and otherwise prepared for shipping.
11. Once packaged, the components are loaded onto delivery trucks for shipment to the client.

Weir Minerals – Industrial Processes at New Surrey Manufacturing Facility





Source: CanVec Edition 1.1 © Department of Natural Resources Canada, all rights reserved. National Road Network 2.0 GeoBase. ESRI Base Data, 2008.

0 500 1,000 1,500
Meters

Coordinate System:
NAD 1983 UTM Zone 10N

Legend

- 18933 34A Ave, Surrey
- Nearest Receptors
- Modelling Domain (10km x 10km)

DRAFT

WEIR MINERALS
18933 34A AVE, SURREY, BRITISH COLUMBIA
AIR DISPERSION MODELLING PLAN

11115558-00
Aug 15, 2016

MODELLING DOMAIN AND NEAREST SENSITIVE RECEPTORS

FIGURE 1

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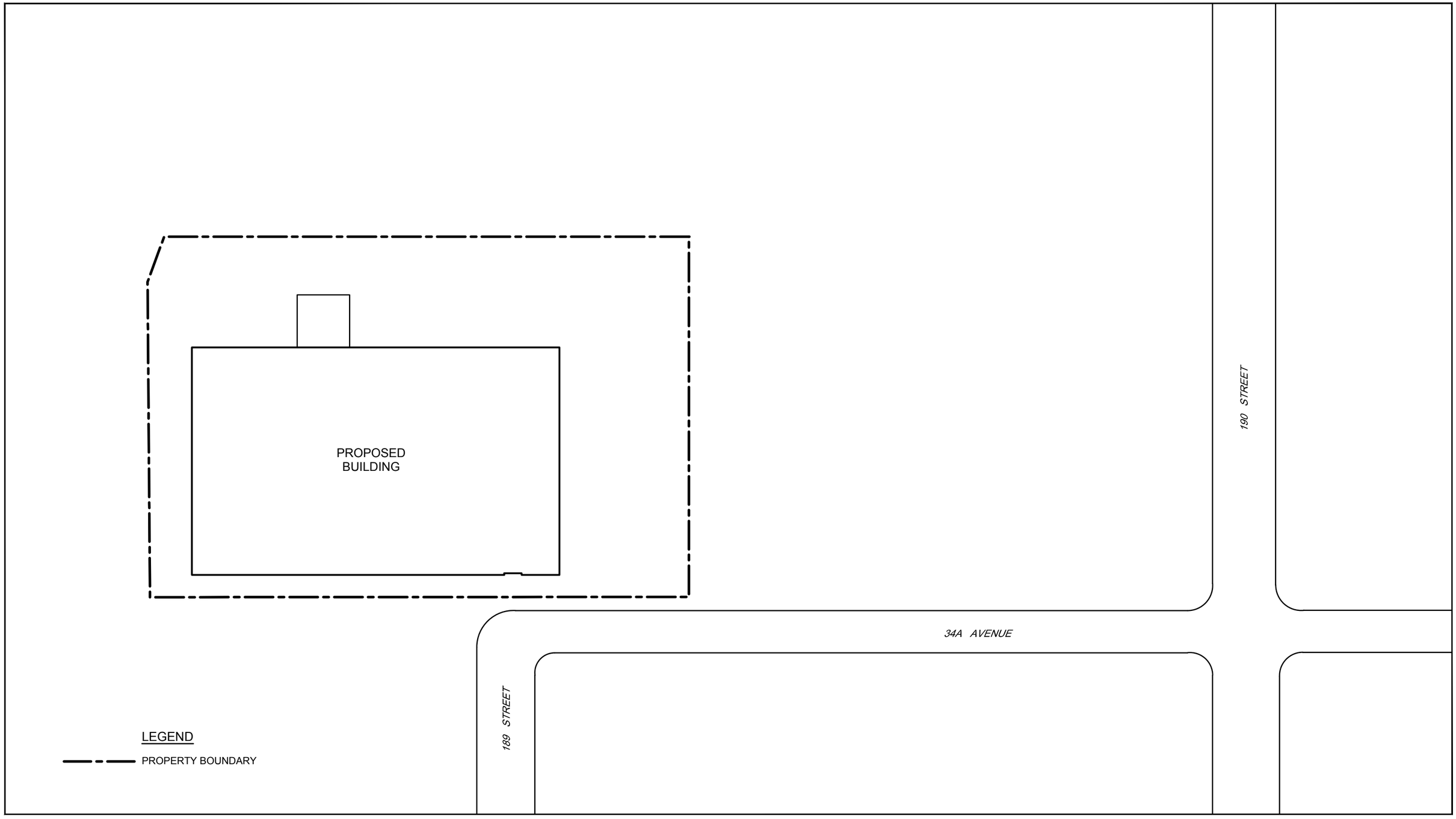

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Coordinate System:
UTM, Nad 83

WEIR MINERALS
SURREY, BRITISH COLUMBIA
AIR DISPERSION MODELLING PLAN

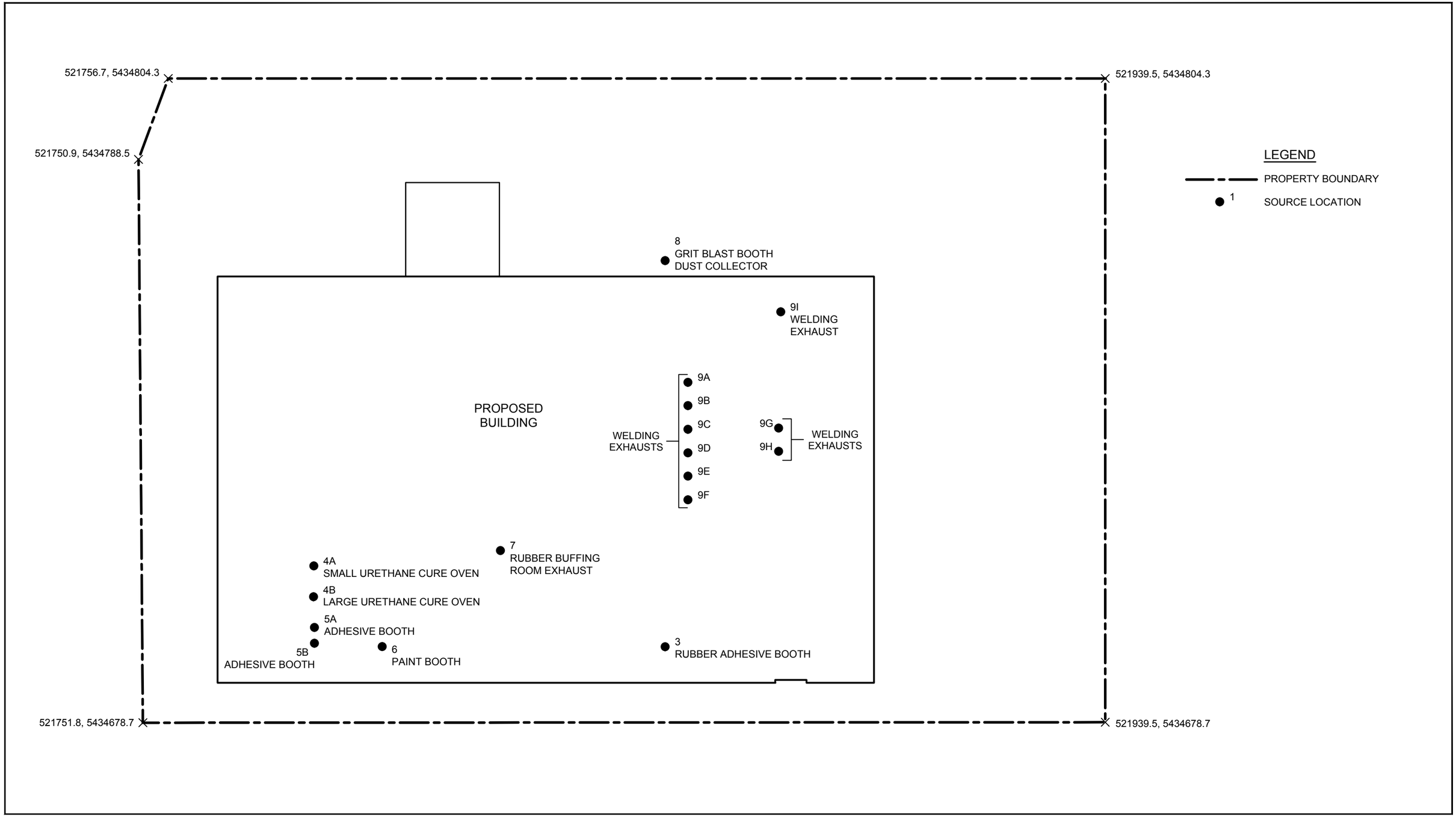
11115558-00

Apr 28, 2016

FACILITY LOCATION

FIGURE 2

CAD File: P:\drawings\11115000s\11115558\11115558-pres\11115558-00(PRES001)\11115558-00(PRES001)GN\11115558-00(PRES001)GN-WA002.dwg



0 7 14 21m

Coordinate System:
UTM, Nad 83

WEIR MINERALS
SURREY, BRITISH COLUMBIA
AIR DISPERSION MODELLING PLAN

11115558-00

May 12, 2016

SITE LAYOUT AND SOURCE LOCATIONS

FIGURE 3

CAD File: P:\drawings\11115000s\11115558\11115558-pres\11115558-00(PRES001)\11115558-00(PRES001)GN\11115558-00(PRES001)GN-WA001.dwg

MVAQ-D1: EMISSION SOURCE SUMMARY

Provide a summary of **ALL** emission sources (point or fugitive) using the table below (or a reasonable facsimile). Any emission sources identified as obsolete will be removed from existing permits. For each new, existing or modified emission source provide total annual emissions. For each new or modified source also attach a completed MVAQ-D2 for point sources or MVAQ-D3 for fugitive emission sources (e.g., vents, stockpiles, transfer points, ship loading). Attach additional information as necessary.

*EMISSION NUMBER	*EMISSION SOURCE DESCRIPTION	*Nitrogen Oxides (NO_x) t/y	*Sulphur Dioxide (SO_2) t/y	*Volatile Organic Compounds (VOC) t/y	*Total Particulate Matter (TPM) t/y	Other (identify contaminants) CO t/y	Other (identify contaminants) HAP t/y	*New, Existing, Modified, or Obsolete (circle one)
	Burn-Off Oven - Removed from Application and Facility's Process - See Weir Formal Notice of Amendment, sent 2017-Jan-05.							~~N~~ ~~E~~ ~~M~~ O
	300 HP Boiler - Removed from Application, Registered Under Bylaw No.1087 - See Weir Formal Notice of Amendment, sent 2017-Jan-05.							~~N~~ ~~E~~ ~~M~~ O
03	Rubber Adhesive Booth	-	-	1.47	-	-	0.37	N ~~E~~ ~~M~~ ~~O~~
04a	Small Urethane Cure Oven	0.040	0.0002	0.0053	0.0030	0.034	-	N ~~E~~ ~~M~~ ~~O~~
04b	Large Urethane Cure Oven	0.067	0.0005	0.0076	0.0051	0.056	-	N ~~E~~ ~~M~~ ~~O~~
05a, 05b	Two (2) Urethane Adhesive Booths	-	-	0.26	0.0003	-	0.056	N ~~E~~ ~~M~~ ~~O~~
06	Paint Booth	-	-	0.032	0.0019	-	0.008	N ~~E~~ ~~M~~ ~~O~~
07	Rubber Buffing Extraction Exhaust	-	-	-	0.004	-	-	N ~~E~~ ~~M~~ ~~O~~
08	Grit Blast Booth Exhaust Dust Collector	-	-	-	0.045	-	-	N ~~E~~ ~~M~~ ~~O~~
09a to 09i	Nine (9) Welding Exhausts	-	-	-	0.0005	-	-	N ~~E~~ ~~M~~ ~~O~~
	15 HP Boiler - Removed from Application, Registered Under Bylaw No.1087 - See Weir Formal Notice of Amendment, sent 2017-Jan-05.							~~N~~ ~~E~~ ~~M~~ O
	FACILITY TOTAL	0.11	<0.01	1.78	0.06	0.09	0.44	

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

*D2-1a EMISSION NUMBER (EN)	03	*D2-1b DESCRIPTION	*Rubber Adhesive Booth*
			Stack ☐ Vent ☐ Transfer Point ☐ Other ☐
*D2-1c EMISSION POINT IS			New ☐ Modified ☐

EMISSION SOURCE CHARACTERISTICS

*D2-1d Stack height (m from ground level)	*D2-1d Stack inside diameter at stack top (m)	* D2-1d Stack Design (check all that apply)			
13.56	*1.07*	Non-circular ☐	If yes, provide effective diameter (m)		
		Horizontal ☐	Vertical Up ☒	Vertical Down ☐	
		At angle ☐	If yes, provide degrees from horizontal		
		Raincap ?	YES ☐	NO ☒	

*D2-1e Exhaust gas temp (°C)	D2-1e Avg exhaust gas flow (actual m^3/min)	*D2-1e Max exhaust gas flow (actual m^3/min)	*D2-1e Exhaust gas O2 (%)	*D2-1e Exhaust gas moisture (%)	*D2-1e Exhaust gas pressure (kPa)	*D2-1e Max opacity (%)	D2-1f Max discharge hours per day	*D2-1f Max discharge hours per year
20	*-*	*708*	*-*	*-*	*-*	*10*	*22*	*5500*

*D2-1g(i) Are you requesting a restriction to the specific days of the week or hours of the day that you operate? *If yes please explain under comments*	YES ☐	YES ☐
*D2-1g(ii) If max discharge hours less than 24 h/d or 8760 h/y, how will facility track hours?	*Equipment fitted with run-time logging capabilities.*	
*D2-1h Is there potential for odour beyond the plant boundary from this source?	YES ☐	NO ☒
*D2-1h Is there potential for dust beyond the plant boundary from this source?	YES ☐	NO ☒

D2-1i *Comments*

The rubber adhesive booth exhaust discharges air from the rubber adhesive booth, ensuring a supply of fresh air to the operator.

The rubber adhesive booth exhaust operates during the application of adhesive and its drying time.

The rubber adhesive booth can operate any day of the week, and any time of day.

Continued on next page……

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	03

EMISSIONS CONTROLS

*D2-2a Description of control works (equipment or procedure)

Filter Pad

*D2-2b Manufacturer and Model Name and/or Number	*D2-2b Control Efficiency (%)
Chemco No. 2020HS2	*99+*

*D2-2c Best Available Control Technology?			
	(1) Most effective or advanced control technology currently successfully in use elsewhere?	YES ☒	NO ☐
	(2) Most effective or advanced management practice currently successfully in use elsewhere?	YES ☒	NO ☐
	(3) Older control technology or management practice?	YES ☐	NO ☒

D2-2d *Comments*

See "Attachments - Rubber Adhesive Booth" for equipment and filter specification.

PROCESS(ES) OR EQUIPMENT GENERATING THE EMISSIONS

*D2-3a Process or equipment description

Rubber adhesive application.

*D2-3b Manufacturer and Model name and/or Number

Col-Met, Model 1B-2010-12-SB

*D2-3c Max throughput or process capacity for non-combustion processes (include units)	*0.3 L/hour*

*D2-3d Combustion sources	D2-3d Fuel type	D2-3d Max input firing rate (GJ/h)	D2-3d Primary or standby fuel?	D2-3d Source if waste based	D2-3d % Sulphur content	D2-3d Max firing hours per year
	Not applicable					

D2-3e *Comments*

Continued on next page.....

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	03

AIR CONTAMINANTS TO BE DISCHARGED

*D2-4a Air Contaminant Common Name	D2-4a CAS	D2-4b Inlet concentration (actual)	*D2-4c Avg outlet concentration (actual conditions)	*D2-4c Max outlet concentration (standard conditions)	*D2-4d Max mass discharge (t/y)
VOC, Total				*6.3 mg/m^3*	*1.5*
HAP, Total				*1.6 mg/m^3*	*0.4*

D2-4e *Comments*

See attached Table A.8 of the Dispersion Modelling Report for complete list of emission estimates.

Total HAPs is the sum of all air contaminant identified as HAPs.

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

*D2-1a EMISSION NUMBER (EN)	04a	*D2-1b DESCRIPTION	*Small Urethane Curing Oven*
			Stack ☒ Vent ☐ Transfer Point ☐ Other ☐
*D2-1c EMISSION POINT IS			New ☒ Modified ☐

EMISSION SOURCE CHARACTERISTICS

*D2-1d Stack height (m from ground level)	*D2-1d Stack inside diameter at stack top (m)	* D2-1d Stack Design (check all that apply)			
11.4	*0.2*	Non-circular ☐	If yes, provide effective diameter (m)		
		Horizontal ☐	Vertical Up ☒	Vertical Down ☐	
		At angle ☐	If yes, provide degrees from horizontal		
		Raincap ?	YES ☒	NO ☐	

*D2-1e Exhaust gas temp (°C)	D2-1e Avg exhaust gas flow (actual m^3/min)	*D2-1e Max exhaust gas flow (actual m^3/min)	*D2-1e Exhaust gas O2 (%)	*D2-1e Exhaust gas moisture (%)	*D2-1e Exhaust gas pressure (kPa)	*D2-1e Max opacity (%)	D2-1f Max discharge hours per day	*D2-1f Max discharge hours per year
105	*-*	*19.8*	*-*	*-*	*-*	*10*	*14*	*1500*

*D2-1g(i) Are you requesting a restriction to the specific days of the week or hours of the day that you operate? *If yes please explain under comments*	YES ☐	YES ☐
*D2-1g(ii) If max discharge hours less than 24 h/d or 8760 h/y, how will facility track hours?	*Equipment fitted with run-time logging capabilities.*	
*D2-1h Is there potential for odour beyond the plant boundary from this source?	YES ☐	NO ☒
*D2-1h Is there potential for dust beyond the plant boundary from this source?	YES ☐	NO ☒

D2-1i *Comments*

The urethane oven exhaust discharges primarily products of combustion.

The urethane oven operates for the duration of the cure cycle of urethane parts.

The urethane oven can operate any day of the week, and any time of day.

Continued on next page……

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	04a

EMISSIONS CONTROLS

*D2-2a Description of control works (equipment or procedure)

Low NOx, CO and Aldeyhyde Burner

*D2-2b Manufacturer and Model Name and/or Number	*D2-2b Control Efficiency (%)
Eclipse Airheat V1 80AH	*99+*

*D2-2c Best Available Control Technology?			
	(1) Most effective or advanced control technology currently successfully in use elsewhere?	YES ☒	NO ☐
	(2) Most effective or advanced management practice currently successfully in use elsewhere?	YES ☒	NO ☐
	(3) Older control technology or management practice?	YES ☐	NO ☒

D2-2d *Comments*

Control efficiency provided by Eastman Manufacturing.

PROCESS(ES) OR EQUIPMENT GENERATING THE EMISSIONS

*D2-3a Process or equipment description

Urethane Curing Oven

*D2-3b Manufacturer and Model name and/or Number

Eastman Manufacturing, No. B-6191-2

*D2-3c Max throughput or process capacity for non-combustion processes (include units)	

*D2-3d Combustion sources	D2-3d Fuel type	D2-3d Max input firing rate (GJ/h)	D2-3d Primary or standby fuel?	D2-3d Source if waste based	D2-3d % Sulphur content	D2-3d Max firing hours per year
	Natural Gas	*0.63*	*Primary*	*-*	*0*	*1500*

D2-3e *Comments*

Natural gas has near zero sulphur content.

Continued on next page.....

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	04a

AIR CONTAMINANTS TO BE DISCHARGED

*D2-4a Air Contaminant Common Name	D2-4a CAS	D2-4b Inlet concentration (actual)	*D2-4c Avg outlet concentration (actual conditions)	*D2-4c Max outlet concentration (standard conditions)	*D2-4d Max mass discharge (t/y)
NOx				*22 mg/m^3*	*0.04*
CO				*19 mg/m^3*	*0.034*
PM, Total				*2 mg/m^3*	*0.003*
SO_2				*0.1 mg/m^3*	*0.0002*
VOC				*3 mg/m^3*	*0.0053*

D2-4e *Comments*

Discharge emissions provided are from natural gas combustion only. Emission factors obtained from USEPA AP-42 for natural gas combustion in uncontrolled small boilers.

Emissions of VOCs/HAPs from parts being cured are calculated under Sources 05a/05b (Urethane Adhesive Booths). They are not included here to avoid double-counting of emissions.

Additionally, all VOCs/HAPs emissions from application of adhesives are assumed to be emitted during the application stage as a conservative estimate for dispersion modelling.

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

*D2-1a EMISSION NUMBER (EN)	04b	*D2-1b DESCRIPTION	*Large Urethane Curing Oven*
			Stack ☒ Vent ☐ Transfer Point ☐ Other ☐
*D2-1c EMISSION POINT IS			New ☒ Modified ☐

EMISSION SOURCE CHARACTERISTICS

*D2-1d Stack height (m from ground level)	*D2-1d Stack inside diameter at stack top (m)	* D2-1d Stack Design (check all that apply)			
11.43	*0.2*	Non-circular ☐	If yes, provide effective diameter (m)		
		Horizontal ☐	Vertical Up ☒	Vertical Down ☐	
		At angle ☐	If yes, provide degrees from horizontal		
		Raincap ?	YES ☒	NO ☐	

*D2-1e Exhaust gas temp (°C)	D2-1e Avg exhaust gas flow (actual m^3/min)	*D2-1e Max exhaust gas flow (actual m^3/min)	*D2-1e Exhaust gas O2 (%)	*D2-1e Exhaust gas moisture (%)	*D2-1e Exhaust gas pressure (kPa)	*D2-1e Max opacity (%)	D2-1f Max discharge hours per day	*D2-1f Max discharge hours per year
105	*-*	*28.3*	*-*	*-*	*-*	*10*	*14*	*1500*

*D2-1g(i) Are you requesting a restriction to the specific days of the week or hours of the day that you operate? *If yes please explain under comments*	YES ☐	YES ☐
*D2-1g(ii) If max discharge hours less than 24 h/d or 8760 h/y, how will facility track hours?	*Equipment fitted with run-time logging capabilities.*	
*D2-1h Is there potential for odour beyond the plant boundary from this source?	YES ☐	NO ☒
*D2-1h Is there potential for dust beyond the plant boundary from this source?	YES ☐	NO ☒

D2-1i *Comments*

The urethane oven exhaust discharges primarily products of combustion.

The urethane oven operates for the duration of the cure cycle of urethane parts.

The urethane oven can operate any day of the week, and any time of day.

Continued on next page……

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	04b

EMISSIONS CONTROLS

*D2-2a Description of control works (equipment or procedure)

Low NOx, CO and aldehyde burner

*D2-2b Manufacturer and Model Name and/or Number	*D2-2b Control Efficiency (%)
Eclipse Airheat V1 80AH	*99+*

*D2-2c Best Available Control Technology?			
	(1) Most effective or advanced control technology currently successfully in use elsewhere?	YES ☒	NO ☐
	(2) Most effective or advanced management practice currently successfully in use elsewhere?	YES ☒	NO ☐
	(3) Older control technology or management practice?	YES ☐	NO ☒

D2-2d *Comments*

Control efficiency provided by Eastman Manufacturing.

PROCESS(ES) OR EQUIPMENT GENERATING THE EMISSIONS

*D2-3a Process or equipment description

Urethane Curing Oven

*D2-3b Manufacturer and Model name and/or Number

Eastman Manufacturing, No. B-6191-1

*D2-3c Max throughput or process capacity for non-combustion processes (include units)	

*D2-3d Combustion sources	D2-3d Fuel type	D2-3d Max input firing rate (GJ/h)	D2-3d Primary or standby fuel?	D2-3d Source if waste based	D2-3d % Sulphur content	D2-3d Max firing hours per year
	Natural Gas	*1.06*	*Primary*	*-*	*0*	*1500*

D2-3e *Comments*

Natural gas has near zero sulphur content.

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MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	04b

AIR CONTAMINANTS TO BE DISCHARGED

*D2-4a Air Contaminant Common Name	D2-4a CAS	D2-4b Inlet concentration (actual)	*D2-4c Avg outlet concentration (actual conditions)	*D2-4c Max outlet concentration (standard conditions)	*D2-4d Max mass discharge (t/y)
NOx				*26 mg/m^3*	*0.067*
CO				*22 mg/m^3*	*0.056*
PM, Total				*2 mg/m^3*	*0.005*
SO_2				*0.2 mg/m^3*	*0.0005*
VOC				*3 mg/m^3*	*0.0076*

D2-4e *Comments*

Discharge emissions provided are from natural gas combustion only. Emission factors obtained from USEPA AP-42 for natural gas combustion in uncontrolled small boilers.

Emissions of VOCs/HAPs from parts being cured are calculated under Sources 05a/05b (Urethane Adhesive Booths). They are not included here to avoid double-counting of emissions.

Additionally, all VOCs/HAPs emissions from application of adhesives are assumed to be emitted during the application stage as a conservative estimate for dispersion modelling.

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

*D2-1a EMISSION NUMBER (EN)	05a/b	*D2-1b DESCRIPTION	*Urethane Adhesive Booth Exhausts (two separate stacks; identical)*
			Stack ☒ Vent ☐ Transfer Point ☐ Other ☐
*D2-1c EMISSION POINT IS			New ☒ Modified ☐

EMISSION SOURCE CHARACTERISTICS

*D2-1d Stack height (m from ground level)	*D2-1d Stack inside diameter at stack top (m)	* D2-1d Stack Design (check all that apply)			
13.56	*0.69*	Non-circular ☐	If yes, provide effective diameter (m)		
		Horizontal ☐	Vertical Up ☒	Vertical Down ☐	
		At angle ☐	If yes, provide degrees from horizontal		
		Raincap ?	YES ☐	NO ☒	

*D2-1e Exhaust gas temp (°C)	D2-1e Avg exhaust gas flow (actual m^3/min)	*D2-1e Max exhaust gas flow (actual m^3/min)	*D2-1e Exhaust gas O2 (%)	*D2-1e Exhaust gas moisture (%)	*D2-1e Exhaust gas pressure (kPa)	*D2-1e Max opacity (%)	D2-1f Max discharge hours per day	*D2-1f Max discharge hours per year
20	*-*	*227*	*-*	*-*	*-*	*10*	*6*	*565*

*D2-1g(i) Are you requesting a restriction to the specific days of the week or hours of the day that you operate? *If yes please explain under comments*	YES ☐	YES ☐
*D2-1g(ii) If max discharge hours less than 24 h/d or 8760 h/y, how will facility track hours?	*Equipment fitted with run-time logging capabilities.*	
*D2-1h Is there potential for odour beyond the plant boundary from this source?	YES ☐	NO ☒
*D2-1h Is there potential for dust beyond the plant boundary from this source?	YES ☐	NO ☒

D2-1i *Comments*

The urethane adhesive booth exhaust discharges air from the urethane adhesive booth, ensuring a supply of fresh air to the operator.

The urethane adhesive booth exhaust operates during the application of adhesive and its drying time.

The rubber adhesive booth can operate any day of the week, and any time of day.

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MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	05a/05b

EMISSIONS CONTROLS

*D2-2a Description of control works (equipment or procedure)

Filter Pad

*D2-2b Manufacturer and Model Name and/or Number	*D2-2b Control Efficiency (%)
Chemco No. 2020HS2	*99+*

*D2-2c Best Available Control Technology?			
	(1) Most effective or advanced control technology currently successfully in use elsewhere?	YES ☒	NO ☐
	(2) Most effective or advanced management practice currently successfully in use elsewhere?	YES ☒	NO ☐
	(3) Older control technology or management practice?	YES ☐	NO ☒

D2-2d *Comments*

See "Attachments - Urethane Adhesive Booths" for equipment and filter specifications.

PROCESS(ES) OR EQUIPMENT GENERATING THE EMISSIONS

*D2-3a Process or equipment description

Urethane adhesive application.

*D2-3b Manufacturer and Model name and/or Number

Pricing, No. B-661-X-01

*D2-3c Max throughput or process capacity for non-combustion processes (include units)	*0.2 L/Hr of urethane per booth*

*D2-3d Combustion sources	D2-3d Fuel type	D2-3d Max input firing rate (GJ/h)	D2-3d Primary or standby fuel?	D2-3d Source if waste based	D2-3d % Sulphur content	D2-3d Max firing hours per year
	Not applicable					

D2-3e *Comments*

Throughput is per each booth.

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MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	05a/05b

AIR CONTAMINANTS TO BE DISCHARGED

*D2-4a Air Contaminant Common Name	D2-4a CAS	D2-4b Inlet concentration (actual)	*D2-4c Avg outlet concentration (actual conditions)	*D2-4c Max outlet concentration (standard conditions)	*D2-4d Max mass discharge (t/y)
PM, Total				*0.02 mg/m^3*	*0.0003*
VOC				*13 mg/m^3*	*0.26*
HAP				*4 mg/m^3*	*0.06*

D2-4e *Comments*

Maximum mass discharge rate is the sum of both booths.

See attached Table A.4 of the Dispersion Modelling Report for complete list of emission estimates.

Total HAPs is the sum of all air contaminants identified as HAPs.

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

*D2-1a EMISSION NUMBER (EN)	06	*D2-1b DESCRIPTION	*Paint Booth*
			Stack ☒ Vent ☐ Transfer Point ☐ Other ☐
*D2-1c EMISSION POINT IS			New ☒ Modified ☐

EMISSION SOURCE CHARACTERISTICS

*D2-1d Stack height (m from ground level)	*D2-1d Stack inside diameter at stack top (m)	* D2-1d Stack Design (check all that apply)			
13.56	*1.22*	Non-circular ☐	If yes, provide effective diameter (m)		
		Horizontal ☐	Vertical Up ☒	Vertical Down ☐	
		At angle ☐	If yes, provide degrees from horizontal		
		Raincap ?	YES ☐	NO ☒	

*D2-1e Exhaust gas temp (°C)	D2-1e Avg exhaust gas flow (actual m^3/min)	*D2-1e Max exhaust gas flow (actual m^3/min)	*D2-1e Exhaust gas O2 (%)	*D2-1e Exhaust gas moisture (%)	*D2-1e Exhaust gas pressure (kPa)	*D2-1e Max opacity (%)	D2-1f Max discharge hours per day	*D2-1f Max discharge hours per year
20	*-*	*1133*	*-*	*-*	*-*	*10*	*12*	*940*

*D2-1g(i) Are you requesting a restriction to the specific days of the week or hours of the day that you operate? *If yes please explain under comments*	YES ☐	YES ☐
*D2-1g(ii) If max discharge hours less than 24 h/d or 8760 h/y, how will facility track hours?	*Equipment fitted with run-time logging capabilities.*	
*D2-1h Is there potential for odour beyond the plant boundary from this source?	YES ☐	NO ☒
*D2-1h Is there potential for dust beyond the plant boundary from this source?	YES ☐	NO ☒

D2-1i *Comments*

The paint booth exhaust discharges air from the paint booth, ensuring a supply of fresh air to the operator.

The paint booth exhaust operates during the application of paint and its drying time.

The paint booth can operate any day of the week, and any time of day.

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MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	06

EMISSIONS CONTROLS

*D2-2a Description of control works (equipment or procedure)

Filter Pad

*D2-2b Manufacturer and Model Name and/or Number	*D2-2b Control Efficiency (%)
Global Finishing Solutions, FIL-EPP-2020-W	*99+*

*D2-2c Best Available Control Technology?			
	(1) Most effective or advanced control technology currently successfully in use elsewhere?	YES ☒	NO ☐
	(2) Most effective or advanced management practice currently successfully in use elsewhere?	YES ☒	NO ☐
	(3) Older control technology or management practice?	YES ☐	NO ☒

D2-2d *Comments*

See "Attachments - Paint Booth" for equipment and filter specifications.

PROCESS(ES) OR EQUIPMENT GENERATING THE EMISSIONS

*D2-3a Process or equipment description

Paint application.

*D2-3b Manufacturer and Model name and/or Number

Global Finishing Solutions, Model CDG-2218NDT60-B-XB-S

*D2-3c Max throughput or process capacity for non-combustion processes (include units)	*1.75 L/hr paint*

*D2-3d Combustion sources	D2-3d Fuel type	D2-3d Max input firing rate (GJ/h)	D2-3d Primary or standby fuel?	D2-3d Source if waste based	D2-3d % Sulphur content	D2-3d Max firing hours per year
	Not applicable					

D2-3e *Comments*

Continued on next page.....

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	06

AIR CONTAMINANTS TO BE DISCHARGED

*D2-4a Air Contaminant Common Name	D2-4a CAS	D2-4b Inlet concentration (actual)	*D2-4c Avg outlet concentration (actual conditions)	*D2-4c Max outlet concentration (standard conditions)	*D2-4d Max mass discharge (t/y)
PM, Total				*0.03 mg/m^3*	*0.0019*
VOC, Total				*0.5 mg/m^3*	*0.032*
HAP, Total				*0.1 mg/m^3*	*0.0083*

D2-4e *Comments*

See attached Table A.5 of the Dispersion Modelling Report for complete list of emission estimates. Total HAPs is the sum of all air contaminants identified as HAPs.

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

*D2-1a EMISSION NUMBER (EN)	07	*D2-1b DESCRIPTION	*Rubber Buffing Room Exhaust*
			Stack ☒ Vent ☐ Transfer Point ☐ Other ☐
*D2-1c EMISSION POINT IS			New ☒ Modified ☐

EMISSION SOURCE CHARACTERISTICS

*D2-1d Stack height (m from ground level)	*D2-1d Stack inside diameter at stack top (m)	* D2-1d Stack Design (check all that apply)			
13.56	*0.91*		Non-circular ☐	If yes, provide effective diameter (m)	
			Horizontal ☐	Vertical Up ☒	Vertical Down ☐
			At angle ☐	If yes, provide degrees from horizontal	
			Raincap ?	YES ☐	NO ☒

*D2-1e Exhaust gas temp (°C)	D2-1e Avg exhaust gas flow (actual m^3/min)	*D2-1e Max exhaust gas flow (actual m^3/min)	*D2-1e Exhaust gas O2 (%)	*D2-1e Exhaust gas moisture (%)	*D2-1e Exhaust gas pressure (kPa)	*D2-1e Max opacity (%)	D2-1f Max discharge hours per day	*D2-1f Max discharge hours per year
20	*-*	*708*	*-*	*-*	*-*	*10*	*12*	*2250*

*D2-1g(i) Are you requesting a restriction to the specific days of the week or hours of the day that you operate? *If yes please explain under comments*	YES ☐	YES ☐
*D2-1g(ii) If max discharge hours less than 24 h/d or 8760 h/y, how will facility track hours?	*Equipment fitted with run-time logging capabilities.*	
*D2-1h Is there potential for odour beyond the plant boundary from this source?	YES ☐	NO ☒
*D2-1h Is there potential for dust beyond the plant boundary from this source?	YES ☐	NO ☒

D2-1i *Comments*

The rubber buffing room exhaust discharges air from the rubber buffing room, ensuring a supply of fresh air to the operators.

The rubber buffing room exhaust operates during the buffing operation.

Activities within the rubber buffing room can operate any day of the week, and any time of day.

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MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	07

EMISSIONS CONTROLS

*D2-2a Description of control works (equipment or procedure)

Filter Pads on Side Draft Hoods & Filter Cylinders on Nederman Arms

*D2-2b Manufacturer and Model Name and/or Number	*D2-2b Control Efficiency (%)
Farr MERV8 Type purated filters in Farr 30/30 frames *Nederman MFS, Particle Filter Cylinders*	*90 / 99*

*D2-2c Best Available Control Technology?			
	(1) Most effective or advanced control technology currently successfully in use elsewhere?	YES ☒	NO ☐
	(2) Most effective or advanced management practice currently successfully in use elsewhere?	YES ☒	NO ☐
	(3) Older control technology or management practice?	YES ☐	NO ☒

D2-2d *Comments*

90% filter pads are installed on the side draft hoods. ~75% of flow.

99% filter pads are installed on the Nederman Arms. ~25% of flow.

See "Attachments - Rubber Buffing Room" for room layout and filter specifications.

PROCESS(ES) OR EQUIPMENT GENERATING THE EMISSIONS

*D2-3a Process or equipment description

Rubber Buffing and Polishing

*D2-3b Manufacturer and Model name and/or Number

Not applicable. This process is typical of industry.

*D2-3c Max throughput or process capacity for non-combustion processes (include units)	*20 lbs rubber removed / day*

*D2-3d Combustion sources	D2-3d Fuel type	D2-3d Max input firing rate (GJ/h)	D2-3d Primary or standby fuel?	D2-3d Source if waste based	D2-3d % Sulphur content	D2-3d Max firing hours per year
	Not applicable					

D2-3e *Comments*

Continued on next page.....

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	07

AIR CONTAMINANTS TO BE DISCHARGED

*D2-4a Air Contaminant Common Name	D2-4a CAS	D2-4b Inlet concentration (actual)	*D2-4c Avg outlet concentration (actual conditions)	*D2-4c Max outlet concentration (standard conditions)	*D2-4d Max mass discharge (t/y)
PM, Total				*0.04 mg/m^3*	*0.004*

D2-4e *Comments*

Majority of PM from rubber grinding is not airborne. Generally, less than 5% of rubber removed becomes airborne before passing through filters.

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

*D2-1a EMISSION NUMBER (EN)	08	*D2-1b DESCRIPTION	*Grit Blast Booth Dust Collector*
			Stack ☒ Vent ☐ Transfer Point ☐ Other ☐
*D2-1c EMISSION POINT IS			New ☒ Modified ☐

EMISSION SOURCE CHARACTERISTICS

*D2-1d Stack height (m from ground level)	*D2-1d Stack inside diameter at stack top (m)	* D2-1d Stack Design (check all that apply)			
6.25	*0.83 x 0.55*	Non-circular ☒	If yes, provide effective diameter (m)		*0.76*
		Horizontal ☐	Vertical Up ☒	Vertical Down ☐	
		At angle ☐	If yes, provide degrees from horizontal		
		Raincap ?	YES ☐	NO ☒	

*D2-1e Exhaust gas temp (°C)	D2-1e Avg exhaust gas flow (actual m^3/min)	*D2-1e Max exhaust gas flow (actual m^3/min)	*D2-1e Exhaust gas O2 (%)	*D2-1e Exhaust gas moisture (%)	*D2-1e Exhaust gas pressure (kPa)	*D2-1e Max opacity (%)	D2-1f Max discharge hours per day	*D2-1f Max discharge hours per year
20	*-*	*566*	*-*	*-*	*-*	*10*	*16*	*4500*

*D2-1g(i) Are you requesting a restriction to the specific days of the week or hours of the day that you operate? *If yes please explain under comments*	YES ☐	YES ☐
*D2-1g(ii) If max discharge hours less than 24 h/d or 8760 h/y, how will facility track hours?	*Equipment fitted with run-time logging capabilities.*	
*D2-1h Is there potential for odour beyond the plant boundary from this source?	YES ☐	NO ☒
*D2-1h Is there potential for dust beyond the plant boundary from this source?	YES ☐	NO ☒

D2-1i *Comments*

The grit blast booth dust collector filters discharge air from the grit blast room, ensuring a supply of fresh air to the operators.

The grit blast booth dust collector operates during the blasting operation.

Activities within the rubber buffing room can operate any day of the week, and any time of day.

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MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	08

EMISSIONS CONTROLS

*D2-2a Description of control works (equipment or procedure)

Dust Collector

*D2-2b Manufacturer and Model Name and/or Number	*D2-2b Control Efficiency (%)
Industrial Blast Technologies, IBT-2552/5	*99.8*

*D2-2c Best Available Control Technology?			
	(1) Most effective or advanced control technology currently successfully in use elsewhere?	YES ☒	NO ☐
	(2) Most effective or advanced management practice currently successfully in use elsewhere?	YES ☒	NO ☐
	(3) Older control technology or management practice?	YES ☐	NO ☒

D2-2d *Comments*

See "Attachments - Grit Blast Booth Dust Collector" for equipment and filter specifications.

PROCESS(ES) OR EQUIPMENT GENERATING THE EMISSIONS

*D2-3a Process or equipment description

Grit blasting for metal surface cleaning

*D2-3b Manufacturer and Model name and/or Number

Innovative Blast Technologies, IBT-2272

*D2-3c Max throughput or process capacity for non-combustion processes (include units)	*5 kg/hr of surface contaminants + abrasive breakdown*

*D2-3d Combustion sources	D2-3d Fuel type	D2-3d Max input firing rate (GJ/h)	D2-3d Primary or standby fuel?	D2-3d Source if waste based	D2-3d % Sulphur content	D2-3d Max firing hours per year
	Not applicable					

D2-3e *Comments*

Continued on next page.....

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	08

AIR CONTAMINANTS TO BE DISCHARGED

*D2-4a Air Contaminant Common Name	D2-4a CAS	D2-4b Inlet concentration (actual)	*D2-4c Avg outlet concentration (actual conditions)	*D2-4c Max outlet concentration (standard conditions)	*D2-4d Max mass discharge (t/y)
PM, Total				*0.2 mg/m^3*	*0.045*

D2-4e *Comments*

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

*D2-1a **EMISSION NUMBER (EN)**	*09a to 09i*	*D2-1b **DESCRIPTION**	*Welding Exhausts (nine, identical but separate stacks)*
			Stack ☒ Vent ☐ Transfer Point ☐ Other ☐
*D2-1c **EMISSION POINT IS**			New ☒ Modified ☐

EMISSION SOURCE CHARACTERISTICS

*D2-1d Stack height (m from ground level)	*D2-1d Stack inside diameter at stack top (m)	* D2-1d Stack Design (check all that apply)			
10.52	*0.2*	Non-circular ☐	If yes, provide effective diameter (m)		
		Horizontal ☐	Vertical Up☐	Vertical Down ☐	
		At angle ☒	If yes, provide degrees from horizontal	*-45°*	
		Raincap ?	YES ☐	NO ☒	

*D2-1e Exhaust gas temp (°C)	D2-1e Avg exhaust gas flow (actual m^3/min)	*D2-1e Max exhaust gas flow (actual m^3/min)	*D2-1e Exhaust gas O2 (%)	*D2-1e Exhaust gas moisture (%)	*D2-1e Exhaust gas pressure (kPa)	*D2-1e Max opacity (%)	D2-1f Max discharge hours per day	*D2-1f Max discharge hours per year
20	*-*	*25.5*	*-*	*-*	*-*	*10*	*16*	*3000*

*D2-1g(i) Are you requesting a restriction to the specific days of the week or hours of the day that you operate? *If yes please explain under comments*	YES ☐	YES ☐
*D2-1g(ii) If max discharge hours less than 24 h/d or 8760 h/y, how will facility track hours?	*Employee welding hours log.*	
*D2-1h Is there potential for odour beyond the plant boundary from this source?	YES ☐	NO ☒
*D2-1h Is there potential for dust beyond the plant boundary from this source?	YES ☐	NO ☒

D2-1i *Comments*

Parameters are for each stack.

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MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	09a - 09i

EMISSIONS CONTROLS

*D2-2a Description of control works (equipment or procedure)

Filter Cylinders

*D2-2b Manufacturer and Model Name and/or Number	*D2-2b Control Efficiency (%)
Nederman MFS, Particle Filter Cylinders	*99*

*D2-2c Best Available Control Technology?			
	(1) Most effective or advanced control technology currently successfully in use elsewhere?	YES ☒	NO ☐
	(2) Most effective or advanced management practice currently successfully in use elsewhere?	YES ☒	NO ☐
	(3) Older control technology or management practice?	YES ☐	NO ☒

D2-2d *Comments*

See "Attachments - Welding Exhausts" for layout and filter specifications.

PROCESS(ES) OR EQUIPMENT GENERATING THE EMISSIONS

*D2-3a Process or equipment description

Repair and new fabrication welding.

*D2-3b Manufacturer and Model name and/or Number

Not applicable.

*D2-3c Max throughput or process capacity for non-combustion processes (include units)	*0.003 - 1.87 kg/hr* *Depending on welding rod type used*

*D2-3d Combustion sources	D2-3d Fuel type	D2-3d Max input firing rate (GJ/h)	D2-3d Primary or standby fuel?	D2-3d Source if waste based	D2-3d % Sulphur content	D2-3d Max firing hours per year
	Not applicable					

D2-3e *Comments*

Throughput is the maximum usage rate for all welding stations combined.

Continued on next page.....

MVAQ-D2: EMISSION INFORMATION FOR POINT SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	09a - 09i

AIR CONTAMINANTS TO BE DISCHARGED					
*D2-4a Air Contaminant Common Name	D2-4a CAS	D2-4b Inlet concentration (actual)	*D2-4c Avg outlet concentration (actual conditions)	*D2-4c Max outlet concentration (standard conditions)	*D2-4d Max mass discharge (t/y)
PM, Total				*0.01 mg/m^3*	*0.0005*

D2-4e *Comments*

Emissions are the sum for all welding stations.

See Table A.7 of the Dispersion Modelling Report for weld rods used at facility.

MVAQ-D3: EMISSION INFORMATION FOR FUGITIVE SOURCES

*D3-1a EMISSION NUMBER (EN)	-	*D3-1b DESCRIPTION	*Not Applicable*
			Stack ☐ Vent ☐ Transfer Point ☐ Other ☐
*D3-1c EMISSION SOURCE IS			New ☐ Modified ☐

EMISSION SOURCE CHARACTERISTICS

*D3-1d Length (m)	*D3-1d Width (m)	*D3-1d Height (m above ground level)	*D3-1e Average Moisture Content (%)	3-1e Average Silt Content (%)	3-1f Number of Transfer Points	*D3-1f Max Drop Height (m)	D3-1g Max operating hours per day	*D3-1g Max operating hours per year

*D2-1g(i) Are you requesting a restriction to the specific days of the week or hours of the day that you operate? *If yes please explain under comments*	YES ☐	NO ☐
*D3-1g(ii) If max operating hours less than 24 h/d or 8760 h/y, how will facility will track hours?		
*D3-1h Is there potential for odour beyond the plant boundary from this source?	YES ☐	NO ☐
*D3-1h Is there potential for dust beyond the plant boundary from this source?	YES ☐	NO ☐

D3-1i *Comments*

All sources have been modelled as point sources - see point sources.

EMISSIONS CONTROLS

*D3-2a Description of control works (equipment or procedure)

See point sources.

*D3-2b Manufacturer and Model Name and/or Number	*D3-2b Control Efficiency (%)

*D3-2c Best Available Control Technology?	(1) Most effective or advanced control technology currently successfully in use elsewhere?	YES ☐	NO ☐
	(2) Most effective or advanced management practice currently successfully in use elsewhere?	YES ☐	NO ☐
	(3) Older control technology or management practice?	YES ☐	NO ☐

D3-2d *Comments*

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Continued on next page.....

MVAQ-D3: EMISSION INFORMATION FOR FUGITIVE SOURCES

.....Continued from previous page

*D2-1a EMISSION NUMBER (EN)	

PROCESS(ES) OR ACTIVITIES GENERATING THE EMISSIONS

*D3-3a Process or activity description	
See point sources.	
*D3-3b Daily limit requested for fugitive PM emissions (include units)	
D3-3c Annual limit requested for fugitive PM emissions (include units)	
*D3-3d Requested short-term production, throughput, capacity or inventory limit (include units and averaging period) for other fugitive emissions	
*D3-3d Requested annual production, throughput, capacity or inventory limit (include units and averaging period) for other fugitive emissions	

D3-3e *Comments*

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AIR CONTAMINANTS TO BE DISCHARGED

*D3-4a Air Contaminant Common Name	D3-4a CAS	*D3-4b Maximum annual emissions (t/y)
Not applicable		

D3-4c *Comments*

See point sources.

MVAQ-D4: AIR QUALITY DISPERSION MODELLING

If you are conducting air quality dispersion modelling please review the guidance document for more information. Contact Metro Vancouver for additional guidance, if required.

Air dispersion modelling must be done according to the Guidelines for Air Quality Dispersion Modelling in British Columbia published by the BC Ministry of Environment, with one exception, which is that the modelling plan should be completed using the Metro Vancouver Dispersion Modelling Plan template. **A model plan should be submitted for approval prior to running any model.**

A Level 2 model plan was submitted by GHD on August 15, 2016 and subsequently approved by Metro Vancouver on September 12, 2016.

MVAQ-D5: SUPPLEMENTAL INFORMATION

Provide an itemized list of attached reports that support the application.

REPORT	DATE
Community Engagement Plan, Dated 2017-Jan-10	*2017-Jan-17*
Notice of Amendment, Dated 2017-Jan-03	*2017-Jan-05*
Air Dispersion Modelling Report, Weir Canada Inc., Doc. No. 11115558-1	*2016-Dec-19*
Metro Vancouver Dispersion Modelling Plan, Version 1.2	*2016-Aug-15*

MVAQ-E1: REVISED NOTICE OF APPLICATION FOR A PERMIT UNDER GREATER VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT BYLAW

This summary of the Application is filed with the DISTRICT DIRECTOR, METRO VANCOUVER. Any person who may be adversely affected by the discharge of air contaminants as described below may, within 30 days from the date of posting, publication, service or display, write to the DISTRICT DIRECTOR, METRO VANCOUVER, ENVIRONMENTAL REGULATION AND ENFORCEMENT DIVISION, 4330 KINGSWAY, BURNABY, BC, V5H 4G8, or email regulationenforcement@metrovancouver.org stating how they are affected. When making a decision on the permit or approval application, the District Director will consider the application, comments submitted and any responses provided by the applicant. Information collected during the comment period and the time following until a decision on the permit application has been made is collected under the authority of the **Freedom of Information and Protection of Privacy Act**. Your personal information and comment will be forwarded to the permit applicant for response to the District Director. By submitting a public comment, you consent to such disclosure.

1. In accordance with the provincial Environmental Management Act Public Notification Regulation,

Weir Canada Inc

(Full name. If a company, British Columbia registered name)

of: 2360 Millrace Court, Mississauga ON, L5N 1N2

(Company address and postal code)

hereby apply for a Permit to discharge contaminants into the air from a(n):

Industrial Rubber Rebuilding Plant

(Type of business or operation)

located at: 18933 34A Avenue, Surrey BC, V3Z 1A7

(Facility civic address and postal code)

The legal description of the land upon which the plant is located is:

LOT 19 SECTION 29 TOWNSHIP I PLAN EPP41342NWD

(Legal Land Description (Lot/Block/Plan) OR PID/PIN/Crown File No.)

2. The purpose of this Revised Application is to request authorization to discharge air contaminants from:

an Industrial Rubber Rebuilding Plant located at 18933 34A Avenue, Surrey BC, V3Z 1A7.

Weir Canada Inc. is seeking a permit for emissions from a new manufacturing facility located in Surrey, B.C. This state of the art facility will consolidate two existing facilities located in Richmond and Delta that utilize older manufacturing technologies. This division of Weir Canada Inc. specializes in providing rubber and elastomer coatings to pipes, valves, specialized fabrications and pump components used primarily in mining and oil sands applications. Emissions from the plant will include products of natural gas combustion from a Boiler, a Steam Generator, two Urethane Curing Ovens, and filtered exhaust from a Paint Room, two Adhesive Application Booths, a Grit Blast Room Dust Collector, and a Rubber Buffing Room. The new facility will utilize modern technologies including a high efficiency and low Nitrogen Oxide (NOx) emission boiler, improved dust capture capabilities and a state of the art spray booth. Weir Canada Inc. submitted a preliminary application in August 2016 and in response to feedback from the public reviewed the initial modeling and took steps to significantly reduce the level of potential emissions. Please see revised emission characteristics below.

Note that we have applied to have the above Boiler and Steam Generator (included in the Original MVAQ-E1 Application) to be authorised under the GVRD Boiler &Process Heaters Emission Regulation Bylaw No.1087, 2008 and Amending Bylaw No. 1190, 2013. The below Revised Emissions reflect this application.

For more information, please contact: Weir.Inquiries@mail.weir

3. A summary of the emission characteristics is as follows:

(a) Maximum total number of sources: 9

(b) Maximum duration of discharge of air contaminants in hours per year: 6875

(c) Requested expiry date (YYYY-MMM-DD): 2031- SEP-01

(d) Emission characteristics:

Total Emissions from All Sources Based on Requested Limits

Air Contaminant (name)	Original Application Emissions (tonnes/year)	Revised Application Emissions (tonnes/year)
Nitrogen Oxides (NO_x)	8.51	0.11
Sulphur Oxides (SO_2)	23.07	0.01
Volatile Organic Compounds (VOCs)	3.89	1.78
Particulate Matter (PM), Total	0.03	0.06
Carbon Monoxide (CO)	2.35	0.09
Hydrogen Chloride (HCl)	2.02	-
Hazardous Air Pollutants (other than HCl)	1.15	0.44
Total	41.02	2.49

(d) Combustion processes: Primary fuel Natural Gas Secondary fuel N/A

(e) Maximum Opacity: 10 per cent

(f) No odours shall be detected beyond the plant boundary such that pollution occurs.

2017-01-24

(Date)

Ricky Nolan

(Print name of applicant or agent)

(Signature of applicant or agent

MVAQ-F1: DECLARATION

I understand that any information provided by Metro Vancouver staff during the review process is intended only to aid the applicant in producing a complete and accurate application package.

I understand that no part of the Metro Vancouver application review process suggests a final outcome of a decision by the District Director with respect to the authorization of air emissions to the atmosphere.

I understand that all information submitted as part of this application is determined solely by me, the applicant regardless of the origin of the information, including information obtained from Metro Vancouver staff.

I declare that the information given in this application is correct and accurate to the best of my knowledge.

Ricky Ndan
Name (please print)

General Manager
Title

Signature

2017-01-24
Date (YYYY-MMM-DD)