



November 28, 2014

Attention: Bay James Committee
Review committee

Re: Certificate of Authorization Application
Rentech Chapais Wood Pellet Plant
Pinchin File: 92046

The purpose of this letter is to support Rentech Chapais Wood Pellet Plant Certificate of Authorization application. This summary has been prepared in accordance with Quebec Clean Air Regulation. All potential sources and contaminants that have regulated limits have been identified and assessed for significance; those deemed insignificant have been rationalized and tabulated.

Rentech Chapais Wood Pellet Plant manufacture wood pellets. Processes include debarking, size conditioning, drying, pelletizing, storing, shipping and receiving. Airborne emissions from the facility include particulate matter, organic compounds and by-products of combustion. Sources and contaminants are identified in Table A1, "Source and Contaminants Identification Table", found in Appendix A. The contribution of each contaminants to the source are identified in Table A2, "Source Summary Table", found in Appendix A.

The facility proposed operating times is 24 hours per day, 7 days per week. A simplified process flow diagram is included in Appendix B, Figure B1. The property boundary, building layout, and source locations are given in Figures B2 and B3, Appendix B

Some sources at the facility have been deemed insignificant, and these sources are listed in Appendix C. A brief rationale for each insignificant source is given below:

- Emissions from the wet wood (EP01) and bark (EP03 and EP04) were considered to be insignificant since the raw materials is expected to have a high moisture content (~45%). As such, particulate matter created is expected suppressed and not be emitted to the atmosphere.
- Emissions from the fuel truck dump (EP05) and chipper (EP06) were considered to be insignificant since the grinder is designed to reduce the particle size to 3 inches. As such, particulate matter created by the grinder is expected to be coarse (i.e. greater than 3 inches), and as such is expected to settle to the ground and not be emitted to the atmosphere.
- Energy System Emergency exhaust (EP09) exhaust is used only for emergency purposes to purge hot gases in case of fire from the dryers and combustor. During regular operation emissions from the combustor and dryers are vented through a common stack (EP08). Therefore potential emissions from the Energy System Emergency exhaust are not expected on a regular



basis.

- The diesel storage tank (EP14) was considered to have insignificant contaminant emissions. Diesel is stored in pressure vessel that do not vent to atmosphere. The diesel tanks have a pressure safety valves that vent to the atmosphere in case of high pressure build up. Additionally, there may be negligible amounts of diesel release during connecting hoses while filling tanks.
- Emergency diesel generator (EP15) exhaust is used only for emergency purposes during a power outage. Therefore potential emissions from the Emergency diesel exhaust are not expected on a regular basis.
- Fugitive dust emissions may be expected from onsite unpaved roadways, storage piles, shipping and receiving and through gaps in the building. The facility will have a fugitive dust management plan in place to minimize dust released in these area. The facility is committed to following the procedures in this plan. Therefore, fugitive dust emissions from the facility have been excluded from the emission assessment.

The approved US EPA AERMOD dispersion model (v.09292) was used to predict the maximum point of impingement (POI) concentration of contaminants. All major structures on site were included in the model to allow for building downwash. A standard multi-tier receptor grid (up to 2000m from source centroid) was placed around the facility in accordance with the ADMGO. The digital elevation dataset for Quebec was entered into the model. The surrounding area is predominantly rural; therefore, the "RURAL" dispersion factor was chosen. The MOE local meteorological data (5-years) that is applicable for the site and its surrounding land was used.

The results are summarized in Table A3.1 (Particulate Matter Concentration at Emission Point), Table A3.2 (Particulate Matter Emission at Emission Point) and Table A3.3 (Source Summary Table) provided in Appendix A. Table A3.1 and A3.2 indicates that for emission points with limits, the facility emissions results in concentration or emission rate that are in compliance. Table A3.3 indicates that, for contaminants with limits, the facility emissions results in maximum POI concentrations that in compliance with limits.



I hope these responses are to your satisfaction. Should you have any questions, please contact the undersigned at (905) 363-1348.

Sincerely,

Pinchin Ltd.

Prepared by:

A handwritten signature in black ink, appearing to read "V. Singh EIT".

Per: Vishma Singh, M.Eng.,EIT
Project EIT
905-363-1348

vsingh@pinchin.com

Encl.: Attachment A: Tables
Attachment B: Figures & Drawings
Attachment C: Insignificant Sources

C:\Users\vsingh\Desktop\92046 -Chapais Wood Pellet Plant ESDM Summary 28-11 2014.docx

ATTACHMENT A

Table A1. Sources and Contaminant Identification Table

Source Information			Expected Contaminants	Significant Yes/No ?	Rationale
Source ID	Source Description	General Location			
EP01	Wet Wood Bin Exhaust	Refer to Figure B3	Particulate Matter	No	Since material has a moisture content of approximately 50%. It is expected that the water present will act as a dust suppressant.
EP02	Dry Shaving Bin Exhaust	Refer to Figure B3	Particulate Matter	Yes	
EP03	Bark for Process Bin Exhaust	Refer to Figure B3	Particulate Matter	No	Since material has a moisture content of approximately 50%. It is expected that the water present will act as a dust suppressant.
EP04	Bark for Energy Bin Exhaust	Refer to Figure B3	Particulate Matter	No	Since material has a moisture content of approximately 50%. It is expected that the water present will act as a dust suppressant.
EP05 (Fugitive)	Truck Dumper	Refer to Figure B3	Particulate Matter	No	Since material has a moisture content of approximately 50%. It is expected that the water present will act as a dust suppressant.
EP06 (Fugitive)	Bark Hog/Chipper	Refer to Figure B3	Particulate Matter	No	Since material has a moisture content of approximately 50%. It is expected that the water present will act as a dust suppressant.
EP07	Green Hammer Mills Exhaust	Refer to Figure B3	Particulate Matter	Yes	
			Organic Vapours	Yes	
EP08	Wood Combustor & Dryer Stack Exhaust	Refer to Figure B3	Particulate Matter	Yes	
			Organic Vapours	Yes	
			By-Products of Combustion	Yes	
EP09	Energy System Emergency Exhaust	Refer to Figure B3	n/a	No	Used for Emergency Purpose only
EP10	Dry Hammer Mills Exhaust	Refer to Figure B3	Particulate Matter	Yes	
			Organic Vapours	Yes	

Table A1. Sources and Contaminant Identification Table

Source Information			Expected Contaminants	Significant Yes/No ?	Rationale
Source ID	Source Description	General Location			
EP11	Pellet Mills Dust Collection Exhaust	Refer to Figure B3	Particulate Matter	Yes	
EP12	Pellet Cooler Exhaust	Refer to Figure B3	Organic Vapours	Yes	
EP13	Pellet Scale/Loadout System Exhaust	Refer to Figure B3	Particulate Matter	Yes	
EP14	Fuel Storage Tanks	Refer to Figure B3	Diesel Fumes	No	Refer to report
EP15	Emergency Diesel Generator	Refer to Figure B3	By-Products of Combustion	No	Used for Emergency Purpose only
EP16 (Fugitive)	Pellet Storage Bins	Refer to Figure B3	Particulate Matter	No	Bins are enclosed and are located within the building.
EP17 (Fugitive)	Ash Storage Bins	Refer to Figure B3	Particulate Matter	No	Bins are enclosed and are located within the building.

Table A2. Source Summary Table

Source ID	Source Description	Source Data						Emission Data						
		Flow Rate (m ³ /s)	Exit Gas Temp (°C)	Inner Dia. (m)	Height Above Grade (m)	Height Above Roof (m)	Discharge Type	Contaminant	CAS #	Maximum Emission Rate (g/s)	Avg. Period (h)	Emission Estimating Technique	Emissions Data Quality	% of Overall Emissions
EP01	Wet Wood Bin Exhaust	3.05	20	n/a	20.0	1.0	Mushroom	Insignificant Emissions	-	-	-	-	-	-
EP02	Dry Shaving Bin Exhaust	1.94	20	0.45	20.0	1.0	Mushroom	Particulate matter	n/a	3.27E-04	24	EF	ADQ	0.00%
EP03	Bark for Process Bin Exhaust	1.94	20	n/a	20.0	1.0	Mushroom	Insignificant Emissions	-	-	-	-	-	-
EP04	Bark for Energy Bin Exhaust	1.11	20	n/a	20.0	1.0	Mushroom	Insignificant Emissions	-	-	-	-	-	-
EP05 (Fugitive)	Truck Dumper Exhaust	n/a	n/a	n/a	n/a	n/a	n/a	Insignificant Emissions	-	-	-	-	-	-
EP06 (Fugitive)	Bark Hog/Chipper	n/a	n/a	n/a	n/a	n/a	n/a	Insignificant Emissions	-	-	-	-	-	-
EP07	Green Hammer Mills Exhaust	13.78	20	0.86	13.0	n/a	Vertical	Formaldehyde	50-00-0	1.44E-03	24	EC	ADQ	1%
								Particulate Matter	n/a	2.76E-01	24	EC	ADQ	3%
EP08	Wood Combustor Stack Exhaust	58.00	116	2.10	30.0	10.0	Vertical	Ethylbenzene	100-41-4	3.86E-04	annual	EF	ADQ	95%
								Styrene	100-42-5	2.36E-02	annual	EF	ADQ	97%
								Benzaldehyde	100-52-7	1.06E-05	annual	EF	ADQ	0%
								Nitrogen Oxides	10102-44-0	2.74E+00	annual	EF	ADQ	45%
								Toluene	108-88-3	1.14E-02	annual	EF	ADQ	48%
								Chlorobenzene	108-90-7	4.10E-04	annual	EF	ADQ	100%
								Phenol	108-95-2	6.34E-04	annual	EF	ADQ	2%
								Tetrachloroethene	127-18-4	4.73E-04	annual	EF	ADQ	100%
								Chromium, hexavalent	18540-29-9	4.35E-05	annual	EF	ADQ	100%
								Formaldehyde	50-00-0	5.47E-02	annual	EF	ADQ	21%
								Benzo(a)pyrene	50-32-8	3.23E-05	annual	EF	ADQ	89%
								Carbon tetrachloride	56-23-5	5.60E-04	annual	EF	ADQ	89%
								Carbon monoxide	630-08-0	7.46E+00	annual	EF	ADQ	65%
								Acetone	67-64-1	2.36E-03	annual	EF	ADQ	0%
Benzene	71-43-2	5.22E-02	annual	EF	ADQ	55%								

Table A2. Source Summary Table

Source ID	Source Description	Source Data						Emission Data						
		Flow Rate (m ³ /s)	Exit Gas Temp (°C)	Inner Dia. (m)	Height Above Grade (m)	Height Above Roof (m)	Discharge Type	Contaminant	CAS #	Maximum Emission Rate (g/s)	Avg. Period (h)	Emission Estimating Technique	Emissions Data Quality	% of Overall Emissions
	Wood Combustor Stack Exhaust (Cont'd)							Lead	7439-92-1	5.97E-04	annual	EF	ADQ	100%
								Mercury	7439-97-6	4.35E-05	annual	EF	ADQ	100%
								Nickel	7440-02-0	4.10E-04	annual	EF	ADQ	100%
								Silver	7440-22-4	2.11E-02	annual	EF	ADQ	100%
								Antimony	7440-36-0	9.82E-05	annual	EF	ADQ	100%
								Arsenic	7440-38-2	2.74E-04	annual	EF	ADQ	100%
								Barium	7440-39-3	2.11E-03	annual	EF	ADQ	100%
								Beryllium	7440-41-7	1.37E-05	annual	EF	ADQ	100%
								Cadmium	7440-43-9	5.10E-05	annual	EF	ADQ	100%
								Chromium, total	16065-83-1	2.61E-04	annual	EF	ADQ	100%
								Copper	7440-50-8	6.09E-04	annual	EF	ADQ	100%
								Vanadium	7440-62-2	1.22E-05	annual	EF	ADQ	100%
								Zinc	7440-66-6	5.22E-03	annual	EF	ADQ	100%
								Sulphure dioxide	7446-09-5	3.11E-01	annual	EF	ADQ	100%
								Bromomethane	74-83-9	1.87E-04	annual	EF	ADQ	53%
								Dichloromethane	75-09-2	3.61E-03	annual	EF	ADQ	49%
								Hydrogen chloride	7647-01-0	2.36E-01	annual	EF	ADQ	100%
								1,2-Dichloropropane	78-87-5	4.10E-04	annual	EF	ADQ	100%
								2-Butanone	78-93-3	6.72E-05	annual	EF	ADQ	0%
								Trichloroethene	79-01-6	3.73E-04	annual	EF	ADQ	100%
Pentachlorophenol	87-86-5	6.34E-07	annual	EF	ADQ	100%								
Naphthalene	91-20-3	1.21E-03	annual	EF	ADQ	100%								
Acetophenone	98-86-2	3.98E-08	annual	EF	ADQ	0%								
Particulate Matter	n/a	3.84E+00	24	EF	ADQ	44%								
EP08	Dryer Stack Exhaust	58.00	116	2.10	30.0	10.0	Vertical	Ethyl benzene	100-41-4	2.22E-05	4 mins, annual	EF	ADQ	5%
								Styrene	100-42-5	7.02E-04	1	EF	ADQ	3%
								Benzaldehyde	100-52-7	1.52E-02	4 mins	EF	ADQ	100%
								Nitrogen Oxides	10102-44-0	3.39E+00	1, 24, annual	EF	ADQ	55%

Table A2. Source Summary Table

Source ID	Source Description	Source Data						Emission Data						
		Flow Rate (m ³ /s)	Exit Gas Temp (°C)	Inner Dia. (m)	Height Above Grade (m)	Height Above Roof (m)	Discharge Type	Contaminant	CAS #	Maximum Emission Rate (g/s)	Avg. Period (h)	Emission Estimating Technique	Emissions Data Quality	% of Overall Emissions
EP09	Dryer Stack Exhaust (Cont'd)						Vertical	Methyl isobutyl ketone	108-10-1	1.40E-02	4 mins	EF	ADQ	100%
								Toluene	108-88-3	1.23E-02	4 mins	EF	ADQ	52%
								Phenol	108-95-2	3.86E-02	4 mins	EF	ADQ	98%
								n-Hexane	110-54-3	1.52E-04	4 mins, annual	EF	ADQ	100%
								m-, p-Xylene	1330-20-7	3.22E-03	4 mins, annual	EF	ADQ	100%
								Formaldehyde	50-00-0	1.46E-01	15 mins	EF	ADQ	55%
								Benzo(a)pyrene	50-32-8	4.04E-06	annual	EF	ADQ	11%
								Carbon tetrachloride	56-23-5	7.02E-05	annual	EF	ADQ	11%
								Carbon monoxide	630-08-0	3.98E+00	1, 8	EF	ADQ	35%
								Acetone	67-64-1	4.92E-01	4 mins, annual	EF	ADQ	100%
								Benzene	71-43-2	5.79E-03	24	EF	ADQ	6%
								Bromomethane	74-83-9	1.64E-04	annual	EF	ADQ	47%
								Methylene chloride	75-09-2	3.69E-03	1, annual	EF	ADQ	51%
								Carbon disulfide	75-15-0	1.05E-04	4 mins	EF	ADQ	100%
								Methyl ethyl ketone	78-93-3	2.87E-02	4 mins	EF	ADQ	100%
								Cumene	98-82-8	4.04E-04	4 mins	EF	ADQ	100%
								Acetophenone	98-86-2	3.75E-04	4 mins, annual	EF	ADQ	100%
EP09	Energy System Emergency Exhaust	53.14	871	2.10	27.0	3.0	Vertical	Particulate Matter	n/a	3.80E+00	24	EF	ADQ	43%
								Total Dioxins and Furans	1746-01-6	8.49E-12	annual	EF	ADQ	100%
EP10	Dry Hammer Mills Exhaust	13.78	60	0.86	13.0	n/a	Vertical	Formaldehyde	50-00-0	1.72E-03	15 mins	EC	ADQ	1%
								Benzene	71-43-2	1.60E-04	24	EC	ADQ	0%
								Particulate Matter	n/a	2.76E-01	24	EC	ADQ	3%
EP11	Pellet Mills Dust Collection Exhaust	20.77	101	1.29	13.0	n/a	Vertical	Particulate Matter	n/a	4.15E-01	24	EC	ADQ	5%

Table A2. Source Summary Table

Source ID	Source Description	Source Data						Emission Data						
		Flow Rate (m ³ /s)	Exit Gas Temp (°C)	Inner Dia. (m)	Height Above Grade (m)	Height Above Roof (m)	Discharge Type	Contaminant	CAS #	Maximum Emission Rate (g/s)	Avg. Period (h)	Emission Estimating Technique	Emissions Data Quality	% of Overall Emissions
EP12	Pellet Cooler Exhaust	9.56	93	0.87	16.0	n/a	Vertical	Formaldehyde	50-00-0	6.19E-02	15 mins	EC	ADQ	23%
								Benzene	71-43-2	3.71E-02	24	EC	ADQ	39%
EP13	Pellet Scale/Loadout System Exhaust	9.44	20	0.89	13.0	n/a	Vertical	Particulate Matter	n/a	1.89E-01	24	EC	ADQ	2%
EP14	Fuel Storage Tanks	n/a	n/a	n/a	n/a	n/a	n/a	Insignificant Emissions	-	-	-	-	-	-
EP15	Emergency Diesel Generator	3.81	476	0.45	6.0	1.0	Vertical	Insignificant Emissions	-	-	-	-	-	-
EP16 (Fugitive)	Pellet Storage Bins	n/a	n/a	n/a	n/a	n/a	n/a	Insignificant Emissions	-	-	-	-	-	-
EP17 (Fugitive)	Ash Storage Bins	n/a	n/a	n/a	n/a	n/a	n/a	Insignificant Emissions	-	-	-	-	-	-

EF : Emission Factor
 EC : Engineering Calculation

AADQ : Above Average Data Quality
 ADQ : Average Data Quality

Table A3.1 Particulate Matter Concentration at Emission Point

Source ID	Process	Flow Rate (m ³ /s)	Emission Rate (g/s)	Concentration (mg/m ³)	Maximum Allowable Concentration (mg/m ³)	Chapter No.	% of Regulation Limit
EP02	Dry Shaving Bin Exhaust	1.94	3.27E-04	1.68E-01	50	153	0.3%
EP07	Green Hammer Mills Exhaust	13.78	2.76E-01	2.00E+01	50	153	40%
EP10	Dry Hammer Mills Exhaust	13.78	2.76E-01	2.00E+01	50	153	40%
EP11	Pellet Mills Dust Collection Exhaust	20.77	4.15E-01	2.00E+01	50	153	40%
EP13	Pellet Scale/Loadout System Exhaust	9.44	1.89E-01	2.00E+01	50	153	40%
EP08	Wood Combustor	58.00	3.84E+00	6.61E+01	70	75	94%

Table A3.2 Particulate Matter Emission at Emission Point

Source ID	Process	Process Feed Rate (t/h)	Emission Rate (g/s)	Emission Rate (kg/h)	Maximum Allowable Emission Limit (kg/h)	Chapter No.	% of Regulation Limit
EP08	Dryer	67.36	3.80E+00	1.37E+01	1.57E+01	154	87%

Table A3.3 Emission Summary Table

Contaminant	CAS #	Total Facility Emission Rate (g/s)	Air Dispersion Model Used	Maximum POI Concentration ($\mu\text{g}/\text{m}^3$)	Averaging Period (h)	MOE POI Limit ($\mu\text{g}/\text{m}^3$)	% of MOE POI Limit
Ethyl benzene	100-41-4	4.08E-04	AERMOD	1.30E-04	annual	200	<0.01%
			AERMOD	1.15E-02	4 mins	740	<0.01%
Chlorobenzene	108-90-7	4.10E-04	AERMOD	1.31E-04	annual	0.3	0.04%
Tetrachloroethene	127-18-4	4.73E-04	AERMOD	1.51E-04	annual	1	0.02%
Chromium, hexavalent	18540-29-9	4.35E-05	AERMOD	1.39E-05	annual	0.002	1%
Lead	7439-92-1	5.97E-04	AERMOD	1.90E-04	annual	0.025	1%
Mercury	7439-97-6	4.35E-05	AERMOD	1.39E-05	annual	0.002	1%
Antimony	7440-36-0	9.82E-05	AERMOD	3.13E-05	annual	0.007	0.4%
Arsenic	7440-38-2	2.74E-04	AERMOD	8.72E-05	annual	0.002	4%
Barium	7440-39-3	2.11E-03	AERMOD	6.74E-04	annual	0.025	3%
Beryllium	7440-41-7	1.37E-05	AERMOD	4.36E-06	annual	0.0004	1%
Cadmium	7440-43-9	5.10E-05	AERMOD	1.63E-05	annual	0.003	0.5%
Chromium, total	16065-83-1	2.61E-04	AERMOD	8.33E-05	annual	0.01	1%
Copper	7440-50-8	6.09E-04	AERMOD	1.94E-04	annual	0.002	10%
Vanadium	7440-62-2	1.22E-05	AERMOD	3.89E-06	annual	0.01	0.04%
Zinc	7440-66-6	5.22E-03	AERMOD	1.83E-02	24	0.1	18%
Sulphur dioxide	7446-09-5	3.11E-01	AERMOD	1.75E+01	4 mins	150	12%
			AERMOD	1.09E+00	24	50	2%
			AERMOD	1.98E-01	annual	20	1%
Hydrogen chloride	7647-01-0	2.36E-01	AERMOD	6.64E+00	4 mins	1150	0.6%
			AERMOD	7.53E-02	annual	20	0.4%
1,2-Dichloropropane	78-87-5	4.10E-04	AERMOD	1.31E-04	annual	4	<0.01%
Trichloroethene	79-01-6	3.73E-04	AERMOD	1.19E-04	annual	0.3	0.04%
Pentachlorophenol	87-86-5	6.34E-07	AERMOD	2.02E-07	annual	0.0005	0.04%

Table A3.3 Emission Summary Table

Contaminant	CAS #	Total Facility Emission Rate (g/s)	Air Dispersion Model Used	Maximum POI Concentration ($\mu\text{g}/\text{m}^3$)	Averaging Period (h)	MOE POI Limit ($\mu\text{g}/\text{m}^3$)	% of MOE POI Limit
Naphthalene	91-20-3	1.21E-03	AERMOD	3.39E-02	4 mins	5	0.7%
			AERMOD	3.85E-04	annual	3	0.01%
Styrene	100-42-5	2.43E-02	AERMOD	3.58E-01	1	150	0.2%
Benzaldehyde	100-52-7	1.52E-02	AERMOD	4.28E-01	4 mins	200	0.2%
Nitrogen Oxides	10102-44-0	6.13E+00	AERMOD	9.02E+01	1	414	22%
			AERMOD	2.15E+01	24	207	10%
			AERMOD	1.95E+00	annual	103	2%
Methyl isobutyl ketone	108-10-1	1.40E-02	AERMOD	3.95E-01	4 mins	400	0.1%
Toluene	108-88-3	2.37E-02	AERMOD	6.67E-01	4 mins	600	0.1%
Phenol	108-95-2	3.93E-02	AERMOD	1.10E+00	4 mins	160	1%
n-Hexane	110-54-3	1.52E-04	AERMOD	4.27E-03	4 mins	160	<0.01%
			AERMOD	4.85E-05	annual	3	<0.01%
m-, p-Xylene	1330-20-7	3.22E-03	AERMOD	9.04E-02	4 mins	350	0.03%
			AERMOD	1.03E-03	annual	20	0.01%
Total Dioxins and Furans (TEQ)	1746-01-6	8.49E-12	AERMOD	2.71E-12	annual	0.00000006	<0.01%
Formaldehyde	50-00-0	2.66E-01	AERMOD	3.58E+01	15 mins	37	97%
Benzo(a)pyrene	50-32-8	3.64E-05	AERMOD	1.16E-05	annual	0.0009	1%
Carbon tetrachloride	56-23-5	6.30E-04	AERMOD	2.01E-04	annual	1	0.02%
Carbon Monoxide	630-08-0	1.14E+01	AERMOD	1.68E+02	1	34000	0.5%
			AERMOD	1.42E+02	8	12700	1%
Acetone	67-64-1	4.94E-01	AERMOD	1.39E+01	4 mins	8600	0.2%
			AERMOD	1.58E-01	annual	380	0.04%
Benzene	71-43-2	9.53E-02	AERMOD	1.89E+00	24	10	19%
Bromomethane	74-83-9	3.50E-04	AERMOD	1.12E-04	annual	5	<0.01%
Methylene chloride	75-09-2	7.29E-03	AERMOD	1.07E-01	1	14000	<0.01%
			AERMOD	2.33E-03	annual	3.6	0.06%

Table A3.3 Emission Summary Table

Contaminant	CAS #	Total Facility Emission Rate (g/s)	Air Dispersion Model Used	Maximum POI Concentration ($\mu\text{g}/\text{m}^3$)	Averaging Period (h)	MOE POI Limit ($\mu\text{g}/\text{m}^3$)	% of MOE POI Limit
Carbon disulfide	75-15-0	1.05E-04	AERMOD	2.96E-03	4 mins	25	0.01%
Methyl ethyl ketone	78-93-3	2.87E-02	AERMOD	8.07E-01	4 mins	740	0.1%
Cumene	98-82-8	4.04E-04	AERMOD	1.13E-02	4 mins	40	0.03%
Acetophenone	98-86-2	3.75E-04	AERMOD	1.19E-04	annual	100	<0.01%
			AERMOD	1.05E-02	4 mins	830	<0.01%
Particulate Matter	n/a	8.80E+00	AERMOD	1.01E+02	24	120	84%

ATTACHMENT B

Rentech Chapais - Pellet Manufacturing

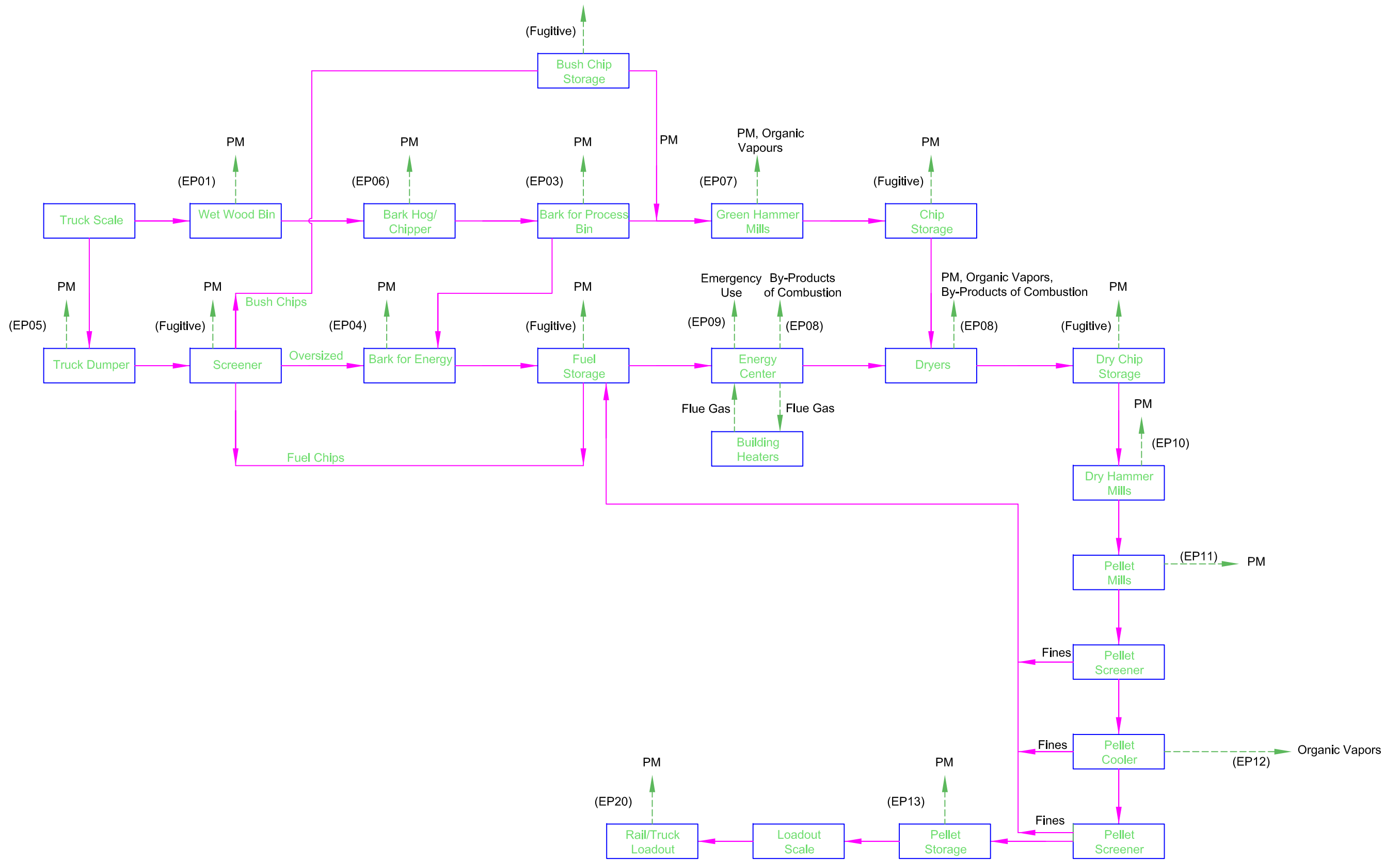


Figure B1a: Process Flow Diagram

Rentech Chapais - Ancillary Operations

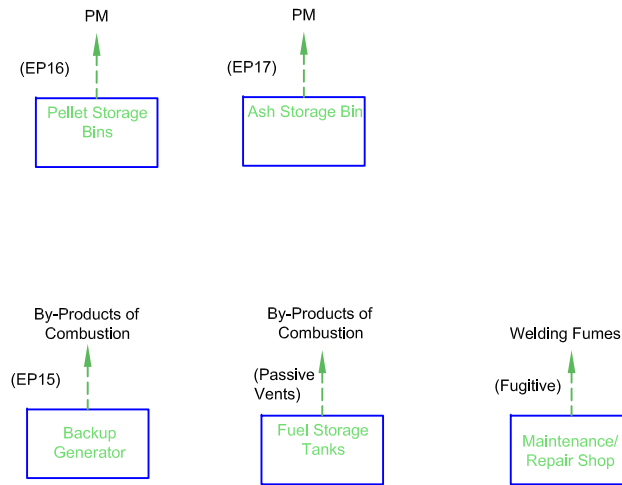


Figure B1b: Process Flow Diagram



**PROPERTY LINE COORDINATES
(ZONE 18U)**

A	(520083, 5514702)
B	(520415, 5514577)
C	(520499, 5514585)
D	(520575, 5514609)
E	(520664, 5514656)
F	(520725, 5514694)
G	(520761, 5514708)
H	(520828, 5514714)
I	(520874, 5514715)
J	(520957, 5514704)
K	(521003, 5514702)
L	(521081, 5514717)
M	(521031, 5514876)
N	(520755, 5514876)
O	(520567, 5514905)
P	(520457, 5514933)
Q	(519796, 5515054)
R	(519874, 5514885)
S	(519948, 5514777)
T	(519964, 5514703)
U	(519961, 5514642)
V	(520007, 5514664)
W	(520064, 5514682)

PROJECT NAME:
**RENTECH WOOD PELLETS PLANT
 CHAPAIS, QUEBEC**

DRAWING NAME:
SCALED AREA LOCATION PLAN

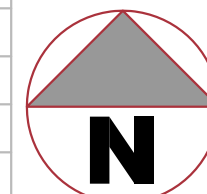
SCALE:
AS SHOWN

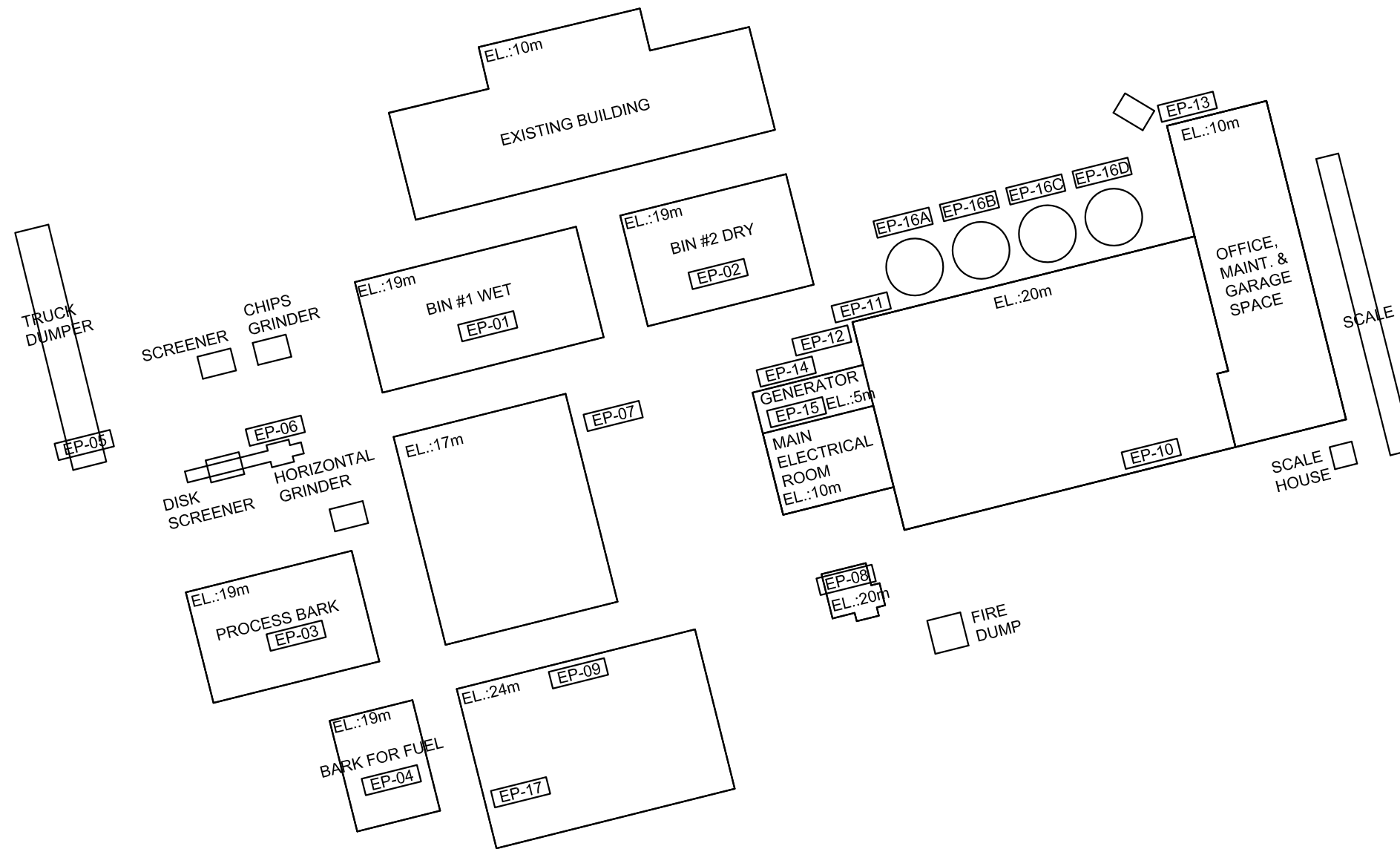
PROJECT NO:
92046

DRAWING NO:
B2

DRAWN BY:
DGB

01.	ECA APPLICATION	NOV 2014
NO.	REVISION	DATE





PROJECT NAME:
RENTECH WOOD PELLETS PLANT
CHAPAIS, QUEBEC

DRAWING NAME:
SOURCE LOCATIONS

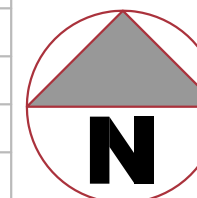
SCALE:
AS SHOWN

PROJECT NO:
92046

DRAWING NO:
B3

DRAWN BY:
DGB

NO.	REVISION	DATE
01.	ECA APPLICATION	NOV 2014



ATTACHMENT C

Table C1. Insignificant Sources/Contaminants

Processing Area / Equipment	Insignificant	
	Contaminant	Source
Wet Wood Bin Exhaust	Particulate Matter	EP01
Bark for Process Bin Exhaust	Particulate Matter	EP03
Bark for Energy Bin Exhaust	Particulate Matter	EP04
Truck Dumper	Particulate Matter	EP05 (Fugitive)
Bark Hog/Chipper	Particulate Matter	EP06 (Fugitive)
Energy System Emergency Exhaust	n/a	EP09
Fuel Storage Tanks	Diesel Fumes	EP14
Emergency Diesel Generator	By-Products of Combustion	EP15
Pellet Storage Bins	Particulate Matter	EP16 (Fugitive)
Ash Storage Bins	Particulate Matter	EP17 (Fugitive)