



AMENDED CERTIFICATE OF APPROVAL

AIR

NUMBER 1898-86ES4M

Issue Date: July 31, 2010

GP Canada Gypsum Holding Limited, a General Partner of Georgia-Pacific Canada LP
350 Argyle St N Caledonia
Haldimand, Ontario
N3W 1M2

Site Location: 350 Argyle Street North, Caledonia
350 Argyle St N Caledonia
Haldimand County,
N3W 1M2

You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:

- the exhaust systems, serving the wallboard manufacturing facility, discharging into the atmosphere as described in Schedules "A", "B", "C" and "D"; and

- Noise Control Measures as described in Schedule "E",

all in accordance with the application dated November 25, 2005 and signed by Oliver Hlavenka, Regional Environmental Coordinator for a Certificate of Approval (Air); Emission Summary and Dispersion Modelling Report prepared by URS Canada Inc., signed by Peter Top dated November 24, 2005, the Acoustic Assessment Report dated May 13, 2008, prepared by HGC Engineering and signed by Oliver Hlavenka, and all supporting information associated with the application.

SCHEDULE "A"

This Schedule "A" forms part of the Certificate

Dust Collectors

Source ID	Description	Heat Input (kJ/hr)	Vol. Flow Rate (m ³ /s)	Exit Dia / Rect. (m)/(mxm)	Height Above Roof (m)	Height Above Grade (m)
S1	Crusher Dust Collector, Stone Hammer Mill Mechanical Shaker, Polyester, Filter Area = 111.81 m ² , Filtering Velocity =1.27 cm/s	-	1.42	0.3	-	12.2
S2	Centre Dust Collector, Mill area-Rock conveyor Pulse Air Jet, Polyester, Filter Area = 115.98 m ² , Filtering Velocity =2.44 cm/s	-	2.83	0.36	2.2	27.4
S3	Impact Mill #7 Dust Collector, Pulse Air Jet, Nomex, Filter = 128.45 m ² , Filtering Velocity =2.39 cm/s	6,330,336	3.07	0.36	2.2	27.4
S4	Impact Mill #5 Dust Collector, Pulse Air Jet , Nomex, Filter Area = 128.45 m ² , Filtering Velocity =2.39 cm/s	6,330,336	3.07	0.36	2.2	27.4
S5	Impact Mill #3 Dust Collector, Pulse Air Jet , Nomex, Filter Area= 128.45 m ² , Filtering Velocity =2.39 cm/s	6,330,336	3.07	0.36	2.2	27.4

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S6	Impact Mill #1 Dust Collector, Pulse Air Jet , Nomex, Filter Area = 128.45 m ² , Filtering Velocity =2.39 cm/s	6,330,336	3.07	0.36	2.2	27.4
S7	Impact Mill #8 Dust Collector, Pulse Air Jet , Nomex, Filter Area= 128.45 m ² , Filtering Velocity =2.39 cm/s	6,330,336	3.07	0.36	2.2	27.4
S8	Impact Mill #6 Dust Collector, Pulse Air Jet , Nomex, Filter Area = 128.45 m ² , Filtering Velocity =2.39 cm/s	6,330,336	3.07	0.36	2.2	27.4
S9	Impact Mill #4 Dust Collector, Pulse Air Jet , Nomex, Filter Area = 128.45 m ² , Filtering Velocity =2.39 cm/s	6,330,336	3.07	0.36	2.2	27.4
S10	Impact Mill #2 Dust Collector, Pulse Air Jet , Nomex, Filter Area = 128.45 m ² , Filtering Velocity =2.39 cm/s	6,330,336	3.07	0.36	2.2	27.4
S11	300 Tonne Bin Feed Screw Cooling Dust Collector, Pulse Air Jet , Nomex, Filter Area = 27.87 m ² , Filtering Velocity =2.54 cm/s	-	0.71	0.15	-	17.0
S12a	Additive Bag Dump Dust Collector, Mechanical Shaker, Polyester, Filter Area = 7.09 m ² , Filtering Velocity =7.98 cm/s	-	0.57	0.15	-	3.3
S12b	Additive Bin Filling Dust Collector, Pulse Air Jet, Polyester, Filter Area = 8.33 m ² , Filtering Velocity =3.96 cm/s	-	0.33	0.15	1.1	14.3
S13a	Starch Bin Day Use Dust Collector, Pulse Air Jet, Polyester, Filter Area = 8.33 m ² , Filtering Velocity =3.96 cm/s	-	0.33	0.15	1.9	14.3
S13b	Starch Bin Vent Filling Dust Collector, Pulse Air Jet, Polyester, Filter Area = 8.33 m ² , Filtering Velocity =3.96 cm/s	-	0.16	0.15	5.2	17.6
S14	Board Forming Line Dust Collector, Pulse Air Jet, Polyester, Filter Area = 36.73 m ² , Filtering Velocity =2.57 cm/s	-	0.94	0.3	2.3	14.7
S18	Board End Trim Dust Collector, Pulse Air Jet, Polyester, Filter Area = 36.73 m ² , Filtering Velocity =2.57 cm/s	-	0.94	0.3	2.0	27.2
S20	Bundler Dust Collector, Pulse Air Jet, Polyester, Filter Area = 45.14 m ² , Filtering Velocity =3.10 cm/s	-	1.42	0.3	2.3	27.4
S21	Impact Mill #10 Dust Collector, Pulse Air Jet , Nomex, Filter Area = 210.96 m², Filtering Velocity =0.66 cm/s	6,330,336	1.42	0.36	2.5	27.6
S22	Impact Mill #9 Dust Collector, Pulse Air Jet , Nomex, Filter Area = 210.96 m², Filtering Velocity =0.67 cm/s	6,330,336	1.42	0.36	2.5	27.6
S23	North West Stucco Cooling Dust Collector, Pulse Air Jet , Nomex, Filter Area = 97.33 m ² , Filtering Velocity =2.88 cm/s	-	2.83	0.41	2.3	24.4
S24	South East Collection Screw Dust Collector, Nomex, Filter Area = 33.4 m ² , Filtering Velocity = 2.55 cm/s	-	0.85	0.23	0.7	25.9

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S25	South West Collection Screw Dust Collector, Nomex, Filter Area = 33.4 m ² , Filtering Velocity = 2.55 cm/s	-	0.85	0.23	1.4	26.5
S26	Dunnage Machine and Cut-back Saw Dust Collector, Polyester, Filter Area = 71.3 m ² , Filtering Velocity = 2.38 cm/s	-	1.7	0.3	-	7.6
S27	Hazemag Crusher Dust Collector, Pulse Air Jet, Polyester, Filter Area = 140.35 m ² , Filtering Velocity = 2.85 cm/s	-	4.0	0.50	-	4.0
S29	North East Stucco Cooling Dust Collector, Pulse Air Jet, Nomex, Filter Area = 126.10 m ² , Filtering Velocity = 3.73 cm/s	-	4.7	0.51x 0.41	-	20.5

SCHEDULE "B"

This Schedule "B" forms part of the Certificate

General Ventilation Fans

Source ID	Description	Exhaust Conditions		Stack Parameters		
		Volumetric Flow Rate (m ³ /s)	Temp. (°C)	Exit Diameter (m)	Height Above Roof (m)	Height Above Grade (m)
V10	General Ventilation Fan #10	25.95	25	1.84	2.8	12.01
V11	General Ventilation Fan #11	25.95	25	1.84	2.8	12.01
V12	General Ventilation Fan #12	25.95	25	1.84	2.8	12.01
V13	General Ventilation Fan #13	25.95	25	1.84	2.8	12.01
V14	General Ventilation Fan #14	25.95	25	1.84	2.8	12.01
V15	General Ventilation Fan #15	25.95	25	1.84	2.8	12.01
V16	General Ventilation Fan #16	25.95	25	1.84	2.8	10.5
V17	General Ventilation Fan #17	25.95	25	1.84	2.8	27.9
V18	General Ventilation Fan #18	25.95	25	1.84	2.8	27.9
V19	General Ventilation Fan #19	25.95	25	1.84	2.8	10.5
V20	General Ventilation Fan #20	19.48	25	0.92	2.1	9.8
V21	General Ventilation Fan #21	25.95	25	1.84	2.8	10.5
V22	General Ventilation Fan #22	25.95	25	1.84	2.8	10.5
V23	General Ventilation Fan #23	25.95	25	1.84	2.8	10.5
V24	General Ventilation Fan #24	25.95	25	1.84	2.8	10.5
V25	General Ventilation Fan #25	19.48	25	0.92	2.1	9.8

SCHEDULE "C"

This Schedule "C" forms part of the Certificate

Combustion Equipment

All are natural gas fired.

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Source ID	Description	Maximum Heat Input (kJ/hr)	Exhaust Conditions		Stack Parameters		
			Volumetric Flow Rate (m ³ /s)	Temp. (°C)	Exit Diameter/ Sq. /Rect. (m)/ (mxm)	Height Above Roof (m)	Height Above Grade (m)
Main Plant							
S15	Board Dryer Seal (Stack 1)	42,202,240	2.88	54	0.53	2.6	11.9
S16	Board Dryer Zone1 (Stack 2)	116,056,160	15.24 (max.)	148	1.2 x 1.2	3.1	12.4
S19	Water/Glycol Tank Heater	11,036,941	2.55	127	0.51	9.8	19.1
S31	Bottom Paper Heater	1,168,965	0.11	25	0.61	2.8	12.2
S32	Top Paper Heater	759,627	0.07	25	0.457	0.9	10.2
H1	Radiant Heater 1(Maintenance Shop)	79,129	0.008	-	0.152	-	-
H2	Radiant Heater 2(Maintenance Shop)	79,129	0.008	-	0.152	-	-
H3	Radiant Heater 3(Maintenance Shop)	79,129	0.008	-	0.152	0.95	-
H4	Radiant Heater 4 (Maintenance Shop)	79,129	0.008	-	0.152	-	-
H7	MR Building Heater 1	47,478	0.005	-	0.102	-	-
H8	MR Building Heater 2	47,478	0.005	-	0.102	-	-
Blue Barn Building							
H5	Radiant Heater 1	79,129	0.008	-	0.152	-	-
H6	Radiant Heater 2	79,129	0.008	-	0.152	1.2	8.2

SCHEDULE "D"

This Schedule "D" forms part of the Certificate

Other Sources

Source ID	Description	Exhaust Conditions		Stack Parameters		
		Volumetric Flow Rate (m ³ /s)	Temperature (°C)	Exit Diameter (m)	Height Above Roof (m)	Height Above Grade (m)
S28	Fabrication Shop Welding Hood	2.4	25	0.3	-	4.6
S33	Silicone Tote Containment	0.071	25	0.102	1.1	10.4
S34	Silicone Tote Containment	0.071	25	0.102	1.1	10.4
S35	Storage Cabinet	0.16	25	0.15	0.16	9.8

Notes for Schedules:

1. "°C" means degrees Celsius.
2. "Dia" means diameter.
3. "kJ/hr" means kilojoules per hour.
4. "m³/s" means cubic metres per second.
5. "m" means metre.
6. "m x m" means metre by metre.
7. "Rect." means rectangular.
8. "Sq." means square.
9. "Temp." means temperature.
10. "Vol" means volumetric.
11. All impact mills are heated with natural gas fired burners.
12. All combustion Equipment are all natural gas fired.

CONTENT COPY OF ORIGINAL

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

1. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with *Ministry* noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a *Facility*.
2. "Acoustic Assessment Report" means a report, prepared in accordance with *Publication NPC-233* and the *Acoustic Assessment Report Procedure* that documents all sources of noise emissions and *Noise Control Measures* present at the *Facility*.
3. "Acoustic Assessment Report Procedure" means the *Ministry* procedure attached to this *Certificate* as Schedule "E".
4. "Acoustic Assessment Summary Table" means a table prepared in accordance with the *Acoustic Assessment Report Procedure* summarising the results of the *Acoustic Assessment Report*, up-dated as required by the Documentation Requirements conditions of this *Certificate*.
5. "Acoustic Audit" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the *Facility*, assessed to determine compliance with the Performance Limits for the *Facility* regarding noise emissions, completed in accordance with the procedures set in *Publication NPC-103* and reported in accordance with *Publication NPC-233*.
6. "Acoustic Audit Report" means a report presenting the results of an *Acoustic Audit*, prepared in accordance with *Publication NPC-233*.
7. "Act" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19.
8. "Certificate" means this entire certificate of approval document, issued in accordance with section 9 of the *Act* including Schedules "A" to "E" inclusive.
9. "Company" means GP Canada Gypsum Holding Limited, a General Partner of Georgia-Pacific Canada LP;
10. "Director" means any person appointed in writing by the Minister of the Environment pursuant to section 5 of the *Act* as a Director for the purposes of section 9 of the *Act*.
11. "District Manager" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located.
12. "Equipment" means Dust Collectors, General Ventilation Fans, Combustion Equipment and Other Sources described in the Company's application, this Certificate and in the supporting documentation referred to herein, to the extent approved by this Certificate;
13. "Facility" means the entire operation located on the property where the *Equipment* is located.
14. "Independent Acoustical Consultant" means an *Acoustical Consultant* who is not representing the *Company* and was not involved in preparing the *Acoustic Assessment Report* or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment*. The *Independent Acoustical Consultant* shall not be retained by the *Acoustical Consultant* involved in the noise impact assessment or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment*.
15. "Manual" means a document or a set of documents that provide written instructions to staff of the *Company*;
16. "Ministry" means the ministry of the government of Ontario responsible for the *EPA* and includes all officials, employees or other persons acting on its behalf.
17. "Noise Abatement Action Plan" means a noise abatement program developed by the *Company* to achieve compliance with the sound level limits set in *Publication NPC-205* and/or *Publication NPC-232*, as applicable.

18. "Noise Control Measures" means measures to reduce the noise emissions from the *Facility* and/or *Equipment* including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers.

19. "Point of Reception" means Point of Reception as defined by *Publication NPC-205* and/or *Publication NPC-232*, as applicable.

20. "Publication NPC-103" means Ministry Publication NPC-103 "Procedures" of the Model Municipal Noise Control By-Law, Final Report, August 1978;

21. "Publication NPC-205" means the *Ministry* Publication NPC-205, "Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban)", October, 1995".

22. "Publication NPC-233" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995.

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1.0 PERFORMANCE LIMITS

1.1 The *Company* shall, at all times following the completion of the Noise Abatement Action Plan in Schedule "E", ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-205*.

1.2 The *Company* shall fill one (1) dry bin at a time.

2.0 OPERATION AND MAINTENANCE

2.1 The *Company* shall ensure that the *Equipment* is properly operated and maintained at all times. The *Company* shall:

(1) prepare, not later than three (3) months after the date of this *Certificate*, and update as necessary, a *Manual* outlining the operating procedures and a maintenance program for the *Equipment*, including:

- (a) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the *Equipment* suppliers;
- (b) emergency procedures;
- (c) procedures for any record keeping activities relating to operation and maintenance of the *Equipment*;
- (d) the frequency of inspection and replacement of the filter material in *Dust Collectors*;
- (e) procedures for recording and responding to environmental complaints regarding the operation of the *Facility*; and
- (f) all appropriate measures to minimize emissions from all potential sources; and

(2) implement the recommendations of the operating and maintenance *Manual*.

3.0 RECORD RETENTION

3.1 The *Company* shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the recording activities required by this *Certificate*, and make these records available for review by staff of the *Ministry* upon request. The *Company* shall retain:

- (1) all records on the maintenance, repair and inspection of the *Equipment*; and
- (2) all records of any environmental complaints; including:
 - (a) a description, time and date of each incident to which the complaint relates;
 - (b) wind direction at the time of the incident to which the complaint relates; and
 - (c) a description of the measures taken to address the cause of the incident to which the complaint relates and to prevent a similar occurrence in the future.

4.0 NOTIFICATION OF COMPLAINTS

4.1 The *Company* shall notify the *District Manager*, in writing, of each environmental complaint within two (2) business days of the complaint. The notification shall include:

- (1) a description of the nature of the complaint; and
- (2) the time and date of the incident to which the complaint relates;

5.0 NOISE ABATEMENT ACTION PLAN

5.1 The *Company* shall implement the *Noise Abatement Action Plan* described in **Schedule "E"**.

5.2 The *Company* shall ensure that the *Noise Abatement Action Plan* shall achieve compliance of the noise emissions from the *Facility* with the limits set out in *Ministry Publication NPC-205*.

5.3 The *Company* shall, not later than the date(s) specified in the *Noise Abatement Action Plan*, ensure that all reports on the progress of the *Noise Abatement Action Plan* are submitted to the *District Manager* and the *Director*.

6.0 ACOUSTIC AUDIT

6.1 The *Company* shall carry out acoustic audit measurements on the actual noise emissions due to the operation of the *Facility*, following the completion of the *Noise Abatement Action Plan*.

- (1) The *Company*:
 - (a) shall carry out acoustic audit measurements in accordance with the procedures in *Publication NPC-103*;
 - (b) shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit*, prepared by an *Independent Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233*, to the *District Manager* and the *Director*, not later than six (6) months after the issue date of this Certificate.
- (2) The *Director*:
 - (a) may not accept the results of the *Acoustic Audit* if the requirements of *Publication NPC-233* were not followed;
 - (b) may require the *Company* to repeat the *Acoustic Audit* if the results of the *Acoustic Audit* are found unacceptable to the *Director*.

The reasons for the imposition of these terms and conditions are as follows:

1.0 PERFORMANCE LIMITS

Condition No. 1 is included to provide the minimum performance requirement considered necessary to prevent an adverse effect resulting from the operation of the *Facility*.

2.0 OPERATION AND MAINTENANCE

Condition No. 2 is included to emphasize that the *Equipment* must be maintained and operated according to a procedure that will result in compliance with the *Act*, the regulations and this *Certificate*.

3.0 RECORD RETENTION

Condition No. 3 is included to require the the *Company* to keep records and to provide information to staff of the *Ministry* so that compliance with the *Act*, the regulations and this *Certificate* can be verified.

4.0 NOTIFICATION OF COMPLAINTS

Condition No. 4 is included to require the *Company* to notify staff of the *Ministry* so as to assist the *Ministry* with the review of the site's compliance.

5.0 NOISE ABATEMENT ACTION PLAN

Condition No. 5 is included to require the *Company* to implement a *Noise Abatement Action Plan* designed to ensure that the noise emissions from the *Facility* will be in compliance with applicable limits set in the *Ministry's* noise guidelines.

6.0 ACOUSTIC AUDIT

Condition No. 6 is included to require the *Company* to gather accurate information and submit an *Acoustic Audit Report* in accordance with procedures set in the *Ministry's* noise guidelines, so that the environmental impact and subsequent compliance with the *EPA*, the regulation and this *Certificate* can be verified.

SCHEDULE "E"

Noise Abatement Action Plan

The *Noise Abatement Action Plan* shall consist of the *Noise Control Measures* outlined in Section 6 of the May 13, 2008 Acoustic Assessment Report, to be implemented according to the following schedule:

1. The Company shall install the silencers described below in order minimize the noise and meet the NPC-205 limits **with completion no later than 4 months after the issue date of this Certificate.**

- One (1) silencer for the Centre Dust Collector exhaust, Source S2, capable of providing the following minimum values of Insertion-Loss in 1/1 octave frequency bands:

Centre Frequency (Hertz)	63	125	250	500	1000	2000	4000	8000
Insertion-Loss (decibel)	—	10	15	10	5	—	—	—

- One (1) silencer for the exhaust of Source S23, North West Stucco Cooling Dust Collector, capable of providing the following minimum values of Insertion-Loss in 1/1 octave frequency bands:

Centre Frequency (Hertz)	63	125	250	500	1000	2000	4000	8000
Insertion-Loss (decibel)	—	10	15	10	5	—	—	—

2. In order to ensure the objective has been achieved, the Company shall carry out a post-abatement Acoustic Audit conducted to demonstrate compliance with MOE noise guidelines following completion of the *Noise Abatement Action Plan* and submit an *Acoustic Audit Report* to the Director for review no later than **6 months after the issue date of this Certificate.**

This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 2853-78ZJUR issued on November 17, 2007

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

AND

The Director
Section 9, *Environmental Protection Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted works are approved under Section 9 of the Environmental Protection Act.

DATED AT TORONTO this 31st day of July, 2010

Victor Low, P.Eng.
Director
Section 9, *Environmental Protection Act*

TS/
c: District Manager, MOE Hamilton - District
Oliver Hlavenka, Georgia-Pacific Canada, Inc.