

Environmental Activity and Sector Registry – Limits and Other Requirements

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Translation: This highly specialized publication *Environmental Activity and Sector Registry - Limits and Other Requirements* is available in English only in accordance with Regulation 671/92, which exempts it from translation under the French Language Services Act. To obtain information in French, please contact the Ministry of the Environment and Climate Change at 416-314-8001 or EAASIBGen@ontario.ca

Foreword

This document, “Environmental Activity and Sector Registry - Limits and Other Requirements, December, 2016, version 1.0” (the EASR publication) sets out the requirements that facilities must follow if its activities are registered under the Air Emissions EASR Regulation. This publication will be made available through a website maintained by the Ministry of the Environment and Climate Change on the Internet and copies will also be available at the Ministry’s Public Information Centre.

A reference to “the Regulation” in this EASR publication is a reference to Ontario Regulation 1/17 entitled “Registrations Under Part II.2 of The Act — Activities Requiring Assessment of Air Emissions”.

The EASR publication includes requirements for In-stack limits for combustion equipment, noise, odour and small wood-fired combustors. It also includes a list of off-grid and remote facilities/communities for the purposes of subsection 13 (2)2.ii and iii of the Regulation.

The Ministry has additional guidance material available to clients to support the completion of documents required by this Regulation including:

- Air Emissions User Guide for Environmental Activity and Sector Registry
- Procedure for Preparing an Emission Summary and Dispersion Modelling Report
- Air Dispersion Modelling Guideline for Ontario
- Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants
- Primary Noise Screening Method Guide
- Secondary Noise Screening Method Guide
- Odour Screening Method

The contents of this document may also be updated from time to time. Any changes will be based upon public consultation consistent with the Ontario Environmental Bill of Rights legislation. All web site addresses referred to in this document were current at the time of release.

For any addenda or revisions to the Environmental Activity and Sector Registry - Limits and Other Requirements publication, please visit the MOECC [website](#) or contact:

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Chapter 1: In-stack Limits for Combustion Equipment

General

1. (1) For the purposes of this Chapter, an amount (or concentration) of nitrogen oxides shall be calculated in accordance with the following formula:

$$A = (B \times 1.53) + C$$

where,

A = the amount (or concentration) of nitrogen oxides,

B = the amount (or concentration) of nitric oxide,

C = the amount (or concentration) of nitrogen dioxide.

(2) In this Chapter, reference to a concentration, as it relates to requirements for a small wood-fired combustor, is a reference to a concentration, corrected to 11 percent oxygen on a dry basis at reference conditions of temperature of 25 degrees Celsius and pressure of 101.3 kilopascals in the flue gas.

Heaters and Boilers - Emission Intensity Rates

2. An emission intensity rate referred to in paragraph 6 of subsection 11 (1) and paragraph 8 of subsection 13 (1) of the Regulation in respect of nitrogen oxides for a boiler or heater with an energy input capacity set out in Column 1 of Table 1 that uses a type of fuel set out opposite the capacity in Column 2, is the emission intensity rate set out in Column 3.

Table 1- Emission Intensity Rates for Heaters and Boilers

Item	Column 1: Energy input capacity of the boiler or heater (gigajoules per hour)	Column 2: Type of fuel used in boiler or heater	Column 3: Maximum nitrogen oxides emission intensity rate (grams per gigajoule)
1.	>10.5 ≤ 105	Gas	26
2.	>105	Gas	40
3.	>10.5 ≤ 105	Distillate oil	40
4.	>105	Distillate oil	50
5.	>10.5	Residual oil with less than 0.35% nitrogen	90
6.	>10.5 ≤ 105	Residual oil with equal to or greater than 0.35% nitrogen	110
7.	>105	Residual oil with equal to or greater than 0.35% nitrogen	125

Electricity Generation Engines - Emission Intensity Rates

3. An emission intensity rate referred to in paragraph 6 of subsection 11 (1) and paragraph 8 of subsection 13 (1) of the Regulation in respect of a contaminant set out in Column 1 of Table 2 that is discharged from an electricity generation engine is the emission intensity rate set out in Column 2.

Table 2 – Emission Intensity Rates for Electricity Generation Engines

Item	Column 1: Contaminant	Column 2: Intensity Rate (kg/MW-hr)
1.	Carbon Monoxide	3.5
2.	Non-methane hydrocarbons	0.19
3.	Nitrogen oxides	0.40
4.	Particulate Matter	0.02

Small wood-fired combustors - Emission Limits

4. A concentration referred to in paragraph 6 of subsection 11 (1) and paragraph 8 of subsection 13 (1) of the Regulation in respect of a contaminant set out in Column 1 of Table 3 that is discharged from a small wood-fired combustor is the limit set out in Column 2.

Table 3 – In-stack Emission limits for small wood-fired combustors

Item	Column 1: Contaminant	Column 2: Emission Limit
1.	Carbon Monoxide	400 ppmv (averaged over a 24-hour period)
2.	Particulate matter	75 mg/Rm ³

Chapter 2: Off-grid and Remote Facilities/Communities

1. For the purpose of subparagraphs 2 ii and iii of subsection 13 (2) of the Regulation, an electricity generation engine is considered to generate electricity for a facility or community located in an off-grid area or for a remote facility or community if the engine is used in one of the following areas:

- i. Armstrong
- ii. Auden
- iii. Bearskin Lake
- iv. Big Trout Lake
- v. Biscotasing
- vi. Collins
- vii. Deer Lake
- viii. Ferland
- ix. Fort Severn
- x. Graham
- xi. Gull Bay
- xii. Hillsport
- xiii. Kasabonika Lake
- xiv. Kingfisher Lake
- xv. Lac Seul
- xvi. Lansdowne House
- xvii. MacDowell
- xviii. Moose River Crossing
- xix. Ogoki/Marten Falls
- xx. Oba
- xxi. Ponask
- xxii. Ramsey
- xxiii. Sachigo Lake
- xxiv. Sandy Lake
- xxv. Sultan
- xxvi. Wapekeka
- xxvii. Weagamow
- xxviii. Webequie
- xxix. Whitesand

Chapter 3: Noise

Definitions

1. (1) In this Chapter,

“background sound level” means the sound level that is present in the environment, produced by sources of sound other than the sources under assessment;

“Class 1 area” means an area where the background sound level during the day and night is dominated by the activities of people;

“Class 2 area” means an area where the background sound level during the day is dominated by the activities of people (07:00 to 19:00) and by natural sounds during the night (19:00 to 07:00 hours);

“Class 3 area” means an area where the background sound level during the day and night is dominated by natural sounds;

“dBA” means the A-weighted sound level;

“dBAI” means the A-weighted sound level of an impulsive sound;

“equivalent sound level (Leq)” means, for sound levels that vary over a period of time, the constant sound level that, over an equal period of time, has the same A-weighted energy as the varying sound (expressed in dBA);

“impulsive sound” means a single pressure pulse or a single burst of pressure pulses, such as a hammer blow;

“logarithmic mean impulse sound level (LLM)” means ten times the logarithm to the base 10 of the arithmetic mean of ten to the power of one tenth the impulse sound level of each impulsive sound;

“quasi-steady impulsive sound” means a sequence of impulsive sounds emitted from the same source, having a time interval of less than 0.5 seconds between successive impulsive sounds;

“steady sound” means non-impulsive sound.

Class 4 Areas

2. (1) A portion of a Class 1 or 2 area is deemed to be a Class 4 area if development of a noise-sensitive property is intended for that portion and, at the date on which the approval for the noise-sensitive property is approved by the relevant land use planning authority,

- (a) there are no other noise-sensitive properties in the portion;
- (b) there is at least one facility that,
 - (i) discharges sound to a point that will be a point of noise reception at the noise-sensitive property;
 - (ii) has a noise report that meets the requirements of sections 17 to 21 of the Regulation that indicates that the Class 1 or 2 sound level limits, as applicable, are met; and
 - (iii) is party to an agreement with the person proposing the development that sets out noise control measures that are to be implemented at the noise-sensitive property.

(2) A person engaging in an activity prescribed by section 2 of the Regulation who relies on the deeming provision in subsection (1) prior to the construction of the noise-sensitive property shall have written confirmation of the proposed presence of the noise-sensitive property from the relevant land use planning authority.

(3) A portion of an area that has been deemed a Class 4 area in respect of the facility mentioned under subsection (1) or in respect of which an environmental compliance approval was issued by the Director under the Act, is considered a Class 4 area in respect of other facilities.

(4) For the purpose of this section,

“noise-sensitive commercial-purpose building” means a building used for a commercial purpose that includes one or more habitable rooms used as sleeping facilities such as a hotel or a motel;

“noise-sensitive institutional-purpose building” means a building used for an institutional purpose, including an educational facility, a day nursery, a hospital, a health care facility, a shelter for emergency housing, a community centre, a place of worship and a detention centre. A place of worship located on commercially or industrially-zoned land is not considered a noise-sensitive institutional-purpose building;

“noise-sensitive property” means a property upon which is located a dwelling, a building used for a legal non-conforming residential use, or a building used for a noise-sensitive commercial or institutional purpose;

“noise-sensitive space” means the living and sleeping quarters of dwellings, and sleeping quarters of a noise-sensitive commercial or institutional building;

“plane of window” means a point in space corresponding with the location of the centre of a window of a noise-sensitive space

Sound level limits – background, roadways and highways

3. (1) For the purpose of this Chapter, background sound level must be measured or predicted according to methods or models that result in the accurate determination of the sound level at a point of noise reception.

(2) A sound level limit used for the purposes of the Secondary Noise Screening Method does not include a sound level limit set out in clauses 6(1)(a), (2)(a), (3)(a), (4)(a) and (5)(a) and clauses 7 (1)(a), (2)(a), (3)(a), (4)(a) and (5)(a).

(3) Despite the sound level limits set out in sections 6 and 7, a sound level limit used for the purposes of the Secondary Noise Screening Method may be increased by 5 dBA in respect of an affected point of noise reception that is located,

- (a) less than 100 m from any point on the edge of the pavement of a 400 series highway; or
- (b) less than 30 m from any point on the edge of the pavement of a provincial roadway or regional road.

Affected points of noise reception

4. (1) Subject to subsection (2), for the purposes of the definition of “point of noise reception” in subsection 1 (1) of the Regulation, a point is **only** a point of noise reception if it is located on a property that contains one or more of the following buildings:

- 1. A building or structure that contains one or more dwellings.
- 2. A building used for a commercial purpose that includes one or more habitable rooms used as sleeping facilities, such as a hotel or motel.
- 3. A building used for an institutional purpose, including an educational facility, a child care centre, a hospital, a health care facility, a shelter for emergency housing, a community centre or a detention centre.
- 4. A building used for a place of worship, other than a place of worship located on land that is zoned for commercial or industrial use.
- 5. A location on a vacant lot, other than an inaccessible vacant lot, that has been zoned to permit a building mentioned in paragraph 1, 2, 3 or 4.
- 6. A portion of a property that is used as a campsite or campground at which overnight accommodation is provided by or on behalf of a public agency or as part of a commercial operation.

(2) A point located on a property on which a building that contains only one dwelling is located is not a point of noise reception if the building is located on the same property as the source of sound and in a separate building from the source of sound.

(3) Subject to subsection (4), an affected point of noise reception is a point of noise reception.

(4) A point of noise reception may be considered not to be an affected point of noise reception if,

1. The distance from the source of sound to the point of noise reception is greater than or equal to the minimum separation distance determined using the Primary Noise Screening Method.
2. The point is one of several points in close proximity and one of the other points is an affected point of noise reception that represents the sound level at the point.
3. The background sound level at the point of noise reception is high relative to the sources of sound being assessed.
4. Having regard to the class of the area in which the point of noise reception is located, the sound level at the point of noise reception is less than the sound level limits that would apply at the point of noise reception in accordance with sections 6 and 7.

(5) Despite subsection (4), if there is a point of noise reception in a cardinal direction, there must be at least one affected point of noise reception in that direction.

Sound Level Limits

Prohibition and Emergency Equipment

5. (1) Subject to subsection (2), for the purpose of the Regulation, the applicable sound level limit must be determined in accordance with sections 6 and 7 with respect to an affected point of noise reception.

(2) It is not necessary to include the sound discharged from emergency equipment when determining the combined sound discharged from all sources of sound at the facility for the purpose of subsection (1).

(3) For each affected point of noise reception determined under section 4 that receives sound discharged from emergency equipment operating in non-emergency situations, the owner and operator of the facility shall ensure that the sound discharged from the emergency equipment does not result in the sound level at the affected point of noise reception exceeding a sound level limit that is 5 dB higher than the applicable sound level limit determined in accordance with sections 6 and 7 with respect to the affected point of noise reception.

(4) Sound level limits do not apply with respect to sound produced by emergency equipment operating in emergency situations.

Sound Level Limits – Steady Sound and Quasi-Steady Impulsive Sound

6. (1) For each affected point of noise reception determined under section 4 that is located outdoors in an area set out in Column 1 of Table 1 and that receives steady sound or quasi-steady impulsive sound from the facility, the sound level limit at the point of noise reception between the hours of 07:00 to 19:00 is the greater of,

- (a) the background sound level at the point of noise reception; and
- (b) the value set out opposite the area in Column 2 of Table 1.

(2) For each affected point of noise reception located outdoors in an area set out in Column 1 of Table 1 that receives steady sound or quasi-steady impulsive sound from the facility, the sound level limit at the point of noise reception between the hours of 19:00 to 23:00 is the greater of,

- (a) the background sound level at the point of noise reception; and
- (b) the value set out opposite the area in Column 3 of Table 1.

Table 1 – Sound Level Limits for Outdoor Points of noise reception - Steady Sound or Quasi-Steady Impulsive Sound

Item	Column 1: Point of noise reception location	Column 2: 1-Hr L_{eq} (dBA) (07:00 – 19:00)	Column 3: 1-Hr L_{eq} (dBA) (19:00 – 23:00)
1.	Class 1 Area	50	50
2.	Class 2 Area	50	45
3.	Class 3 Area	45	40
4.	Class 4 Area	55	55

(3) For each affected point of noise reception determined under section 4 that is a plane of window located in an area set out in Column 1 of Table 2 and that receives steady sound or quasi-steady impulsive sound from the facility, the sound level limit at the point of noise reception between the hours of 07:00 to 19:00 is the greater of,

- (a) the background sound level at the point of noise reception; and
- (b) the value set out opposite the area in Column 2 of Table 2.

(4) For each affected point of noise reception determined under section 4 that is a plane of window located in an area set out in Column 1 of Table 2 that receives steady sound or

quasi-steady impulsive sound from the facility, the sound level limit at the point of noise reception between the hours of 19:00 to 23:00 is the greater of,

- (a) the background sound level at the point of noise reception; and
- (b) the value set out opposite the area in Column 3 of Table 2.

(5) For each affected point of noise reception determined under section 4 that is a plane of window located in an area set out in Column 1 of Table 2 that receives steady sound or quasi-steady impulsive sound from the facility, the sound level limit at the point of noise reception between the hours of 23:00 to 07:00 is the greater of,

- (a) the background sound level at the point of noise reception; and
- (b) the value set out opposite the area in Column 4 of Table 2.

Table 2 – Sound Level Limits for Plane of Window Points of noise reception - Steady Sound or Quasi-Steady Impulsive Sound

Item	Column 1: Point of noise reception location	Column 2: 1-Hr L_{eq} (dBA) (07:00 – 19:00)	Column 3: 1-Hr L_{eq} (dBA) (19:00 – 23:00)	Column 4: 1-Hr L_{eq} (dBA) (23:00 – 07:00)
1.	Class 1 Area	50	50	45
2.	Class 2 Area	50	45	45
3.	Class 3 Area	45	40	40
4.	Class 4 Area	60	60	55

Sound Level Limits – Impulsive Sound

7. (1) For each affected point of noise reception determined under section 4 that is located outdoors in an area set out in Column 1 of Table 3 and that receives an impulsive sound from the facility, the sound level limit at the point of noise reception between the hours of 07:00 to 23:00 is the greater of,

- (a) the background sound level at the point of noise reception; and
- (b) if the number of impulses in a one-hour period is,
 - (i) one, the value set out opposite the area in Column 2 of Table 3,
 - (ii) two, the value set out opposite the area in Column 3 of Table 3,
 - (iii) three, the value set out opposite the area in Column 4 of Table 3,
 - (iv) four, the value set out opposite the area in Column 5 of Table 3,

- (v) five to six, the value set out opposite the area in Column 6 of Table 3,
- (vi) seven to eight, the value set out opposite the area in Column 7 of Table 3,
- (vii) nine or more, the value set out opposite the area in Column 8 of Table 3.

Table 3 - Sound Level Limits for Outdoor Points of noise reception – Impulsive Sound

Item	Column 1: Point of noise reception location	Column 2: L _{LM} (dBAI) (1 Impulse / hr)	Column 3: L _{LM} (dBAI) (2 Impulses / hr)	Column 4: L _{LM} (dBAI) (3 Impulses / hr)	Column 5: L _{LM} (dBAI) (4 Impulses / hr)	Column 6: L _{LM} (dBAI) (5-6 Impulses / hr)	Column 7: L _{LM} (dBAI) (7-8 Impulses / hr)	Column 8: L _{LM} (dBAI) (9 or more Impulses / hr)
1.	Class 1 Area	80	75	70	65	60	55	50
2.	Class 2 Area	80	75	70	65	60	55	50
3.	Class 3 Area	75	70	65	60	55	50	45
4.	Class 4 Area	85	80	75	70	65	60	55

(2) For each affected point of noise reception determined under section 4 that is a plane of window located in an area set out in Item 1, 2 or 4 of Column 1 of Table 4 and that receives an impulsive sound from the facility, the sound level limit at the point of noise reception between the hours of 07:00 to 23:00 is the greater of,

- (a) the background sound level at the point of noise reception; and
- (b) if the number of impulses in a one-hour period is,
 - (i) one, the value set out opposite the area in Column 2 of Table 4,
 - (ii) two, the value set out opposite the area in Column 3 of Table 4,
 - (iii) three, the value set out opposite the area in Column 4 of Table 4,
 - (iv) four, the value set out opposite the area in Column 5 of Table 4,
 - (v) five to six, the value set out opposite the area in Column 6 of Table 4,
 - (vi) seven to eight, the value set out opposite the area in Column 7 of Table 4,

(vii) nine or more, the value set out opposite the area in Column 8 of Table 4.

(3) For each affected point of noise reception determined under section 4 that is a plane of window located in an area set out in Item 3 of Column 1 of Table 4 and that receives an impulsive sound from the facility, the sound level limit at the point of noise reception between the hours of 07:00 to 19:00 is the greater of,

- (a) the background sound level at the point of noise reception; and
- (b) if the number of impulses in a one-hour period is,
 - (i) one, the value set out opposite the area in Column 2 of Table 4,
 - (ii) two, the value set out opposite the area in Column 3 of Table 4,
 - (iii) three, the value set out opposite the area in Column 4 of Table 4,
 - (iv) four, the value set out opposite the area in Column 5 of Table 4,
 - (v) five to six, the value set out opposite the area in Column 6 of Table 4,
 - (vi) seven to eight, the value set out opposite the area in Column 7 of Table 4,
 - (vii) nine or more, the value set out opposite the area in Column 8 of Table 4.

Table 4 – Day and Evening Sound Level Limits for Plane of Window Points of noise reception – Impulsive Sound

Item	Column 1: Point of noise reception location	Column 2: L _{LM} (dBAI) (1 Impulse / hr)	Column 3: L _{LM} (dBAI) (2 Impulses / hr)	Column 4: L _{LM} (dBAI) (3 Impulses / hr)	Column 5: L _{LM} (dBAI) (4 Impulses / hr)	Column 6: L _{LM} (dBAI) (5-6 Impulses / hr)	Column 7: L _{LM} (dBAI) (7-8 Impulses / hr)	Column 8: L _{LM} (dBAI) (9 or more Impulses / hr)
1.	Class 1 Area	80	75	70	65	60	55	50
2.	Class 2 Area	80	75	70	65	60	55	50
3.	Class 3 Area	75	70	65	60	55	50	45
4.	Class 4 Area	90	85	80	75	70	65	60

(4) For each affected point of noise reception determined under section 4 that is a plane of window located in an area set out in Item 1, 2 or 4 of Column 1 of Table 5 and that receives an impulsive sound from the facility, the sound level limit at the point of noise reception between the hours of 23:00 to 07:00 is the greater of,

- (a) the background sound level at the point of noise reception; and
- (b) if the number of impulses in a one-hour period is,
 - (i) one, the value set out opposite the area in Column 2 of Table 5,
 - (ii) two, the value set out opposite the area in Column 3 of Table 5,
 - (iii) three, the value set out opposite the area in Column 4 of Table 5,
 - (iv) four, the value set out opposite the area in Column 5 of Table 5,
 - (v) five to six, the value set out opposite the area in Column 6 of Table 5,
 - (vi) seven to eight, the value set out opposite the area in Column 7 of Table 5,
 - (vii) nine or more, the value set out opposite the area in Column 8 of Table 5

(5) For each affected point of noise reception determined under section 4 that is a plane of window located in an area set out in Item 3 of Column 1 of Table 5 and that receives an impulsive sound from the facility, the sound level limit at the point of noise reception between the hours of 19:00 to 07:00 is the greater of,

- (a) the background sound level at the point of noise reception; and
- (b) if the number of impulses in a one-hour period is,
 - (i) one, the value set out opposite the area in Column 2 of Table 5,
 - (ii) two, the value set out opposite the area in Column 3 of Table 5,
 - (iii) three, the value set out opposite the area in Column 4 of Table 5,
 - (iv) four, the value set out opposite the area in Column 5 of Table 5,
 - (v) five to six, the value set out opposite the area in Column 6 of Table 5,
 - (i) seven to eight, the value set out opposite the area in Column 7 of Table 5,
 - (ii) nine or more, the value set out opposite the area in Column 8 of Table 5.

Table 5 – Night Sound Level Limits for Plane of Window Points of noise reception – Impulsive Sound

Item	Column 1: Location of point of noise reception	Column 2: L _{LM} (dBAI) (1 Impulse / hr)	Column 3: L _{LM} (dBAI) (2 Impulses / hr)	Column 4: L _{LM} (dBAI) (3 Impulses / hr)	Column 5: L _{LM} (dBAI) (4 Impulses / hr)	Column 6: L _{LM} (dBAI) (5-6 Impulses / hr)	Column 7: L _{LM} (dBAI) (7-8 Impulses / hr)	Column 8: L _{LM} (dBAI) (9 or more Impulses / hr)
1.	Class 1 Area	75	70	65	60	55	50	45
2.	Class 2 Area	75	70	65	60	55	50	45
3.	Class 3	70	65	60	55	50	45	40
4.	Class 4 Area	85	80	75	70	65	60	55

Acoustic Assessment Part

Acoustic Assessment Report

8. (1) A noise report that indicates that the criteria set out in paragraph 8 iv or v of subsection 17 (1) of the Regulation are met shall contain the following information:

1. The primary NAICS code for the facility and any other applicable NAICS codes related to the facility.
2. A table entitled “Noise Source Summary Table” that sets out the type and number of sources of sound at the facility and, for each source, sets out the following information:
 - i. Column 1: Source Identifier: a unique identifier for each source of sound.
 - ii. Column 2: Source Description: a brief description of the source of sound.
 - iii. Column 3: Sound Power Level: a measurement in decibels of the acoustical power radiated by the source of sound with respect to the international reference of 10⁻¹²Watts.
 - iv. Column 4: Sound Characteristics: the acoustical characteristics of the source of sound that affect the measurements, including tonal characteristics and whether the sound is steady, impulsive or quasi-steady impulsive.
 - v. Column 5: Source Location: an indication of whether the source of sound is located outside or inside a building
 - vi. Column 6: Noise Control Measures: an indication of measures and procedures used to control the noise emissions from the source of sound
3. The operating hours of the facility, including the start time and the stop time and, if there are multiple or intermittent source of sounds at the facility, the sequence of operation of the sources. The operational parameters that were assumed for the purpose of the assessment, including the maximum rates of production, process limits and parameters relating to equipment and infrastructure
4. A plan of the facility, drawn to scale, that shows the following items,
 - i. the property boundary of the site on which the facility is located,
 - ii. the location of each source identified in paragraph 2,
 - iii. for each source identified in paragraph 2 that is housed in a building, the size, location and orientation of each exterior opening in the building,
 - iv. the materials used to construct the exterior and interior of each building mentioned in subparagraph iii,
 - v. the location of each acoustical barrier used or proposed to be used with respect to each source of sound, and
 - vi. an indication of North.

5. A summary of the noise control measures and procedures used to prevent or minimize the discharge of sound from more than one source at the facility, for example berms or enclosures.

6. With respect to each noise control measure and procedure identified in subparagraph 2 vi and paragraph 5, the following information:

- i. If a source is silenced, enclosed or shielded by a barrier, the location, dimensions, structural details and material used for the noise control measure,
- ii. The specification of equipment and materials used in the noise control measure such as, transmission loss, insertion loss and noise reduction,
- iii. If the noise control measure uses standard catalogue items, an indication of the manufacturer's make and model number of the noise control measure.

7. A plan of the area surrounding the facility that meets the following criteria:

- i. The plan must set out the property boundary of the site on which the facility is located and a boundary that is at least 1000 metres from the property boundary at every point.
- ii. In the area between the property boundary and the boundary mentioned in subparagraph i, the plan must depict the following,
 - A. The land use zoning and permitted uses (e.g. a Land Use Zoning Designation Plan from the municipality),
 - B. The location of all highways and roadways,
 - C. The location of each affected point of noise reception determined in accordance with section 4, and the property boundaries associated with the affected point of noise reception, and
 - D. The location of each acoustical barrier used or proposed to be used in the area.
- iii. The plan must show the distance between each opening mentioned in subparagraph 4iii and each affected point of noise reception mentioned in sub-sub-paragraph C.
- iv. The plan must indicate North, be drawn to scale and include a zoning legend.

8. A table entitled "Point of noise reception Noise Impact Table" that sets out, for each source of sound identified in paragraph 2, the following information:

- i. Column 1: Source ID: the unique identifier mentioned in subparagraph 2 i.
- ii. Column 2: Point of noise reception ID: a unique identifier for each affected point of noise reception identified in sub-sub-paragraph 7 ii C.
- iii. Column 3: Distance to Point of noise reception: the distance in metres from the source of sound to each affected point of noise reception identified in subparagraph ii.

- iv. Column 4: Time of Day: For each affected point of noise reception identified in subparagraph ii, set out the time periods (day/evening/night) during which the sound level must be assessed in accordance with section 6 or 7.
 - v. Column 5: Sound Level at Point of noise reception: For each time period identified in subparagraph iv, the predicted or measured sound level (Leq or LLM) identified as units of dBA or dBAI at each affected point of noise reception identified in subparagraph ii resulting from the source of sound.
9. A description of methods used to determine the predicted or measured sound levels mentioned in subparagraph 8 v, including calculations, measurement techniques and equipment used to measure noise.
10. Confirmation from the licensed engineering practitioner mentioned in paragraph 1 of subsection 17 (1) of the Regulation that the methods mentioned in paragraph 9 are adequate to accurately determine the sound level at each affected point of noise reception.
11. A table entitled “Acoustic Assessment Summary Table” that sets out, for each affected point of noise reception identified in sub-subparagraph 7 ii C, the following information:
- i. Column 1: Point of noise reception ID: the unique identifier mentioned in subparagraph 8 ii.
 - ii. Column 2: Point of noise reception Description: A brief description of the affected point of noise reception.
 - iii. Column 3: Time of Day: For each affected point of noise reception, set out the time periods (day/evening/night) during which the sound level must be assessed in accordance with section 6 or 7.
 - iv. Column 4: Sound Level at Point of noise reception: For each time period identified in subparagraph iii, the predicted or measured sound level at the affected point of noise reception, in terms of Leq or LLM and reported in units of dBA or dBAI. Note that if there are multiple sources of sound at the facility, the sound level at the affected point of noise reception must account for the combined effect of all sources of sound.
 - v. Column 5: Sound Level Limit: the applicable sound level limit set out in section 6 or 7.
 - vi. Column 6: Compliance with Sound Level Limit: an indication of whether the predicted sound level at the affected point of noise reception is below the applicable sound level limit mentioned in subparagraph v.
12. A statement signed by the person engaging in the prescribed activity confirming that all information given to the licensed engineering practitioner in order to prepare the report was complete and accurate.

Chapter 4: Odour

Definitions

1. In this Chapter,

“Class 3 area” has the same meaning as in Chapter 3 (Noise);

“coating” means a product that forms a film when it is applied to a surface but does not include a water based product that has a volatile organic compound concentration that is 50 gram/litre or less;

“cooking or drying animal products” means an industrial process that includes the heating of or removing of moisture from animal products to create animal food or other animal products. This process does not include the manufacturing of food for human consumption;

“food frying” means an industrial process in which food for human consumption is fried using edible oils or fats.

“printing” means a printing process at a commercial printing facility and includes lithographic printing, flexographic printing, digital printing, rotogravure printing, and screen printing.

“printing ink” means an ink used in a printing process but does not include an ink that has a volatile organic compound concentration that is 50 gram/litre or less;

“process using phenolic resin” means a manufacturing process in which phenolic (PF) resin is used to complete the process but does not include the manufacturing of phenolic resin.

“scented product” means a non-edible product produced for purposes that includes the discharge of odour, such as candles;

“scented product manufacturing” means a manufacturing process in which scented products are produced or used in the process;

“spraying operation” means a process in which a coating is applied to a surface by way of spraying but does not include a printing process or a process that applies a coating using a spray can, electrostatic painting or electrophoretic painting or the application of a coating as part of routine maintenance at the facility;

“wastewater treatment” means an on-site process at the facility to treat wastewater from the facility;

Point of Odour Reception

2. For the purposes of the definition of “point of odour reception” in subsection 1 (1) of the Regulation, each of the following locations is a point of odour reception if the location is not on the same property as the facility from which the odour is or will be discharged:

1. A building or structure that contains one or more dwellings.
2. A building used for a commercial purpose that includes one or more habitable rooms used as sleeping facilities, such as a hotel or motel.
3. A building used for an institutional purpose, including an educational facility, a child care centre, a health care facility, a community centre.
4. A building used for a place of worship, other than a place of worship located on land that is zoned for commercial or industrial use.
5. A location on a vacant lot, other than an inaccessible vacant lot, that has been zoned to permit a building mentioned in paragraph 1, 2, 3 or 4.
6. A portion of a property used for recreational purposes, not including a portion used for a recreational trail.
7. A portion of a property that is used for as a campsite or campground at which overnight accommodation is provided by or on behalf of a public agency or as part of a commercial operation.

Tables

3. (1) The following are the tables referred to in section 24 of the Regulation.

Table 1- Odour – Activities and Setback Distances

Column 1: Item	Column 2: NAICS Code	Column 3: NAICS Code Description	Column 4: Design Capacity of Facility	Column 5: Setback Distance (m)
1.	311119	Other animal food manufacturing	N/A	500
2.	311214	Rice Milling and Malt Manufacturing	N/A	500
3.	311230	Breakfast cereal manufacturing	N/A	300
4.	311340	Non-chocolate confectionery manufacturing	N/A	300
5.	311351	Chocolate and chocolate confectionery manufacturing from cacao beans	N/A	500

Column 1: Item	Column 2: NAICS Code	Column 3: NAICS Code Description	Column 4: Design Capacity of Facility	Column 5: Setback Distance (m)
6.	311352	Confectionery manufacturing from purchased chocolate	N/A	300
7.	311420	Fruit and vegetable canning, pickling and drying	N/A	350
8.	311511	Fluid milk manufacturing	N/A	100
9.	311515	Butter, cheese, and dry and condensed dairy product manufacturing	N/A	100
10.	311520	Ice cream and frozen dessert manufacturing	N/A	300
11.	311710	Seafood product preparation and packaging	N/A	500
12.	311821	Cookie and cracker manufacturing	N/A	300
13.	311911	Roasted nut and peanut butter manufacturing	N/A	300
14.	311919	Other snack food manufacturing	N/A	300
15.	311920	Coffee and tea manufacturing	N/A	250
16.	311930	Flavouring syrup and concentrate manufacturing	N/A	300
17.	311940	Seasoning and dressing manufacturing	N/A	300
18.	311990	All other food manufacturing	N/A	300
19.	312120	Breweries	< 20 ML/yr annual production rate	250
20.	312140	Distilleries	N/A	500

Column 1: Item	Column 2: NAICS Code	Column 3: NAICS Code Description	Column 4: Design Capacity of Facility	Column 5: Setback Distance (m)
21.	316110	Leather and hide tanning and finishing	N/A	500
22.	321114	Wood preservation	N/A	500
23.	322220	Paper bag and coated and treated paper manufacturing	N/A	500
24.	326140	Polystyrene foam product manufacturing	N/A	500
25.	326196	Motor vehicle plastic parts manufacturing	N/A	500

Table 2 – Odour – Processes and Setback Distances

Column 1: Item	Column 2: Odorous Process	Column 3: Setback Distance (m)
1.	Spraying Operations (<10 L/hr)	100
2.	Wastewater Treatment – Covered Clarifiers	500
3.	Scented Products Manufacturing	500
4.	Printing (printing rates > 100 kg/hr, to ≤ 400 kg/hr)	100
5.	Plastic Extrusion or Melting	100
6.	Process using Phenolic Resin	250

(2) For the purposes of Table 2,

“printing (printing rates) >100 kg/ hr to ≤ 400 kg/hr” means a printing process engaged in at a facility at which the total of the maximum hourly application rates of all printing inks used in printing processes at the facility is greater than 100 kg/hr and not greater than 400 kg/hr;

“spraying operation (<10 L/hr)” means a spraying operation engaged in at a facility at which the total of the maximum hourly application rates of all coatings used in spraying operations at the facility is less than 10 litres/hr;

“wastewater treatment – covered clarifier” means a wastewater treatment process that uses a covered clarifier but does not use a lagoon, uncovered clarifier or sludge management.

Table 3 – Odour – Activities and Setback Distances

Column 1: Item	Column 2: NAICS Code	Column 3: NAICS Code Description	Column 4: Design Capacity of Facility	Column 5: Setback Distance (m)
1.	311111	Dog and Cat Food Manufacturing	N/A	500
2.	311310	Sugar manufacturing	N/A	500
3.	312120	Breweries	≥ 20 ML/yr annual production rate	500

Table 4 – Odour – Processes and Setback Distances

Column 1: Item	Column 2: Odorous Process	Column 3: Setback Distance (m)
1.	Spraying Operations (≥10 L/hr)	500
2.	Wastewater Treatment – Lagoons, Uncovered Clarifiers, Sludge Management	1000
3.	Food Frying	500
4.	Cooking or Drying Animal Products	500

Column 1: Item	Column 2: Odorous Process	Column 3: Setback Distance (m)
5.	Printing (printing rates > 400 kg/hr)	500

(3) For the purposes of Table 4,

“printing (printing rates) > 400 kg/hr” means a printing process engaged in at a facility at which the total of the maximum hourly application rates of all printing inks used in printing processes at the facility is greater than 400 kg/hr;

“spraying operation (≥ 10 L/hr)” means a spraying operation engaged in at a facility at which the total of the maximum hourly application rates of all coatings used in spraying operations at the facility is greater than or equal to 10 litres/hr;

“wastewater treatment – Lagoons, Uncovered Clarifiers, Sludge Management” means a wastewater treatment process that uses a covered clarifier but does not use a lagoon, uncovered clarifier or sludge management.

Measuring Distances

4. For the purposes of paragraphs 3 and 5 of section 24 of the Regulation, to determine the distance between a facility and the closest point of odour reception, the distance from the closest point of discharge of odour from the facility or outdoor odour source to the property line of the closest point of odour reception must be measured.

The distance shall be measured from Point A to Point B in accordance with the following:

1. Point A is,
 - i. the point that is located on the edge of the point of discharge of odour from a building at the facility and that is closest to the property boundary of the point of odour reception, or
 - ii. if there is an outdoor source of odour located closer to the property boundary of the point of odour reception than the point mentioned in subparagraph i, the point that is located on the edge of the outdoor source of odour and that is closest to the property boundary of the point of odour reception.
2. Point B is the point that is located on the property boundary of the point of odour reception and that is closest to Point A.

There is an exception to the measurement rule set out above. If the closest point of odour reception is a dwelling or a camping area that is located in a Class 3 area, a person may use Point C instead of Point B in the measurement rule set out above, where, Point C is

the point that is located 30 meters from the exterior wall of the dwelling or edge of the camping area and closest to Point A.

However, if the distance between Point A and Point C is less than the distance between Point A and Point B, Point A and Point B must be used in the measurement rule set out above.

Records

5. For the purpose of paragraph 9 of section 24 of the Regulation the following records shall be created and retained at the facility for a period of 20 years after the record is created:

1. A drawing that is to scale and that sets out the points used for any measurements performed for the purpose of paragraph 3 or 5 of section 24 of the Regulation.

Chapter 5: Small Wood-fired Combustors

Definitions

1. (1) In this Chapter,

“EN 303-5 (2012)” means the European Standard EN 303-5, published by the European Committee for Standardization in June, 2012 and entitled “Heating boilers – Part 5: Heating boilers for solid fuels, manually and automatically stoked, nominal heat output of up to 500 kW – Terminology, requirements, testing and marking”;

“nominal load heat input capacity” means the design capacity of a small wood-fired combustor to combust a maximum amount of wood fuel based on the physical design of the small wood-fired combustor and is calculated by multiplying the mass flow rate of the wood fuel by the higher heating value of the wood fuel;

“nominal load heat output capacity” means the maximum continuous usable heat output as determined by the nominal load heat input capacity and design of the heat exchanger;

“oxygen lambda sensor” means a device that continuously measures the concentration of oxygen in the flue gas on a wet basis and uses the resulting measurement as an input to the oxygen trim system;

“oxygen trim system” means the components of a small wood-fired combustor that dynamically control the excess oxygen level in the flue gas through the use of an oxygen lambda sensor;

“partial load heat input capacity” means the design capacity of a small wood-fired combustor to combust a minimum amount of wood fuel based on the physical design of the small wood-fired combustor, for which air emissions can be reliably measured at steady state conditions, and is calculated by multiplying the mass flow rate of the wood fuel by the higher heating value of the wood fuel;

“partial load heat output capacity” means the minimum continuous usable heat output as determined by the partial load heat input capacity and design of the heat exchanger;

Wood fuel specifications

2. The following are the specifications referred to in subparagraph 3 iii of subsection 2 (2) of the Regulation with respect to the fuel used in a small wood-fired combustor.

1. Wood briquettes that are grade A1, A2 or B as set out in the standard CAN/CSA-ISO 17725-3:15, published by the Canada National Standard/Canadian Standards – International Organization for Standardization standard on March 1, 2015 and

entitled “Solid biofuels – Fuel specifications and classes - Part 3: Graded Wood briquettes”.

2. Wood pellets that are:
 - i. grade A1, A2 or B as set out in the standard CAN/CSA-ISO 17725-2:15, published by the Canada National Standard/Canadian Standards – International Organization for Standardization standard on March 1, 2015 and entitled “Solid biofuels – Fuel specifications and classes - Part 2: Graded Wood pellets”; or
 - ii. premium or standard grade as set out in the document entitled “Pellet Fuels Institute Standard Specifications for Residential/Commercial Densified Fuel”, published by the Pellet Fuels Institute in July 2015.
3. Wood chips that,
 - i. have a moisture content, reported on a wet basis, that does not exceed 50 percent when used as fuel; and
 - ii. if the date is after January 31, 2027, are grade A1, A2, B1 or B2 as set out in the standard 17225-4:15, published by the Canada National Standard/Canadian Standards – International Organization for Standardization in 2015 on March 1, 2015 and entitled “Solid Biofuels – Fuel specifications and classes – Part 4: Graded wood chips”.

Automated wood fuel feed system

3. An automated wood fuel feed system mentioned in paragraph 1 of section 31 of the Regulation must meet the following criteria:

1. The automated wood fuel feed system must have a computational algorithm that operates in conjunction with an oxygen trim system.
2. The automated wood fuel feed system must have start-up and shut down procedures that control the timing sequence and amount of combustion air and wood fuel fed into the combustor.

Wood fuel management

4. (1) A wood fuel management plan mentioned in paragraph 2 of section 31 of the Regulation must contain the following elements:

1. A list setting out, for each small wood-fired combustor at the facility, each type of wood fuel that is intended to be stored at the facility for use in the small wood-fired combustor and the specification described in section 2 that best describes the wood fuel.
2. A procedure to document the quantity of wood fuel purchased for use in each small wood-fired combustor at the facility, the date of the purchase and the source from which the fuel was purchased.

3. If wood fuel is generated at the facility, a procedure to document each type of wood fuel generated at the facility in each calendar year for use in each small wood-fired combustor at the facility and the amount of each type of wood fuel generated during that period.
4. A procedure to ensure that each wood fuel, wood fuel storage area, and wood fuel handling and conveyance system used at the facility in relation to a small wood-fired combustor is inspected on a regular basis.
5. A procedure to ensure that wood fuel that is not considered acceptable for combustion at the facility is removed from the facility immediately or stored in a location that is separate from the wood fuel storage area until it can be removed from the facility in a timely manner. The quantity and type of wood fuel rejected as unacceptable for combustion and the reasons for the rejection must be documented.
6. A procedure setting out the steps that are to be taken to ascertain whether a wood fuel meets the applicable specifications set out in section 2 for the type of wood fuel. Such steps may include laboratory testing, requisition of documentation of third party certification provided to the wood fuel supplier, and on-site testing.
7. An indication of the maximum time that each type of wood fuel may be stored at the facility before it is used in a small wood-fired combustor. This maximum storage duration must be established in a manner that prevents degradation of the wood fuel before it is used as a fuel.
8. If a facility uses wood chips, a procedure to,
 - i. with respect to wood chip pile turn-over, ensure that the wood chips that have been at the facility for the longest are used first, and
 - ii. ensure that the wood chips fed into a small wood-fired combustor are delivered from either a heated indoor wood chip storage facility sufficient to store a minimum of one and a half days of wood chip fuel supply at nominal load heat input capacity or unheated indoor storage facility sufficient to store a minimum of three days of wood chip fuel supply at nominal load heat input capacity. The wood chips may be delivered either directly from the indoor storage facility to the combustor if both are housed in one structure, or indirectly from the storage facility into the combustor fuel hopper through a conveyance system if housed in separate structures.
9. If a facility uses wood pellets or wood briquettes, a procedure to ensure that the wood pellets and wood briquettes are covered by a weather proof enclosure.

(2) A person mentioned in section 31 of the Regulation must ensure that the wood fuel management plan is reviewed at least once every year and updated to reflect any changes in wood fuel management at the facility, including any revisions required with respect to the maximum time that each type of wood fuel may be stored at the facility before it is used as a fuel in a small wood-fired combustor.

Design criteria

5. (1) The design criteria mentioned in paragraph 3 of section 31 of the Regulation are the following:

1. Subject to subsection (2), a small wood-fired combustor must meet the following requirements:
 - i. Subject to subparagraphs ii and iii, the small wood-fired combustor must meet the requirements of EN 303-5 (2012).
 - ii. The combustor must be designed to meet Class 5 thermal efficiency and carbon monoxide as set out in EN 303-5 (2012) at nominal load and partial load heat output capacity operating conditions.
 - iii. The combustor must be designed, taking into account any air pollution control equipment specified by the manufacturer, to meet at least one of Class 3, 4 or 5 for dust (particulate matter) as set out in EN 303-5 (2012) at nominal load and partial load heat output capacity operating conditions.
2. A small wood-fired combustor must have a multi-zone air control combustion process with a primary combustion zone designed to facilitate the drying and gasification of the wood fuel and to ensure that solid fixed carbon is combusted with minimal carry-over of particulate matter.
3. A small wood-fired combustor must have a multi-zone air control combustion process with a secondary combustion zone designed to achieve complete combustion of the volatilized gases and any combustible particles that may be carried over from the primary combustion zone.
4. A small wood-fired combustor must have an automated bottom ash removal system.
5. A small wood-fired combustor must have an oxygen trim system including an oxygen lambda sensor to regulate the supply of combustion air to the primary, secondary, and, where applicable, tertiary combustion zones.
6. A small wood-fired combustor must use a variable speed electric fan as the induced draft fan to maintain a minimum negative static pressure in the combustion zones.
7. A small wood-fired combustor must have a monitor that measures the static pressure in the furnace or an alarm that signals when the static pressure in the furnace is positive.
8. If the small wood-fired combustor is designed to meet Class 3 dust (particulate matter) as set out in EN 303-5 (2012), the combustor must have, in addition to any air pollution control equipment specified by the manufacturer, additional air pollution control equipment that removes at least 50% of the particulate matter entering the additional air pollution control equipment.
9. If the small wood-fired combustor is designed to meet Class 4 or 5 for dust (particulate matter) as set out in EN 303-5 (2012), the combustor must be equipped with the air pollution control equipment specified by the manufacturer as required, if any, in order for the combustor to meet Class 4 or 5 for dust (particulate matter).

(2) A small wood-fired combustor that would meet the criteria set out in paragraph 1 of subsection (1) but for having a nominal heat load output capacity of more than 500 kW is deemed to meet the design criteria in paragraph 1 of subsection (1).

(3) The design criteria set out in paragraph 1 of subsection (1) of a small wood-fired combustor referred to in subsection (1) or (2) must be confirmed by a person who,

- (a) does not own, operate, sell or manufacture the small wood-fired combustor, and
- (b) meets the EN ISO/IEC 17025 requirements for testing as described in EN 303-5 (2012).

Operational parameters

6. (1) The operational parameters mentioned in paragraph 4 of section 31 of the Regulation are the following operational parameters specified by the manufacturer of the small wood-fired combustor at both nominal and partial load capacity:

- 1. The heat input capacity.
- 2. The heat output capacity.
- 3. The wood fuel feed rate.
- 4. The thermal efficiency.

(2) A person mentioned in section 31 of the Regulation must ensure that a record is made of the partial load heat input and output capacity of each small wood-fired combustor as a percentage of the corresponding nominal load heat input and output capacity.

(3) A person mentioned in section 31 of the Regulation must ensure that a small wood-fired combustor only operates if,

- (a) the heat input is above the partial load heat input capacity mentioned in subsection (2);
- (b) the heat output is above the partial load heat output capacity mentioned in subsection (2);
- (c) the excess oxygen in the flue gas of the small wood-fired combustor is at least 5.5 percent by volume on a wet basis block-averaged over a one-hour period;
- (d) the static pressure in the small wood-fired combustor is negative; and
- (e) the air pollution control equipment mentioned in paragraphs 8 and 9 of subsection 5 (1) is operational.

Monitoring operational parameters

7. (1) For the purpose of paragraph 5 of section 31 of the Regulation, a person mentioned in that section must ensure that the following parameters are measured continuously and that the measurements are recorded as block-averages over every five-minute period:

1. The concentration of oxygen in the flue gas as measured by an oxygen lambda sensor, expressed as percent by volume on a wet basis.
2. An induced draft fan parameter, for example the fan speed or percent of maximum fan speed.
3. A fuel input or energy output parameter, for example, the percentage of the nominal input/output capacity at which the small wood-fired combustor is operating.
4. The flue gas temperature.

(2) A person mentioned in section 31 of the Regulation must ensure that each piece of monitoring equipment used to measure the parameters set out in subsection (1) is properly maintained, inspected and calibrated in accordance the manufacturer's recommendations.

(3) The person must ensure that the records that are required by subsection (1) are retained for at least a 12-month period after the date the measurement was taken.

Installation test

8. (1) The statement mentioned in paragraph 6 of section 31 of the Regulation must confirm that the installation test was conducted in accordance with the following:

1. The test was performed no later than 90 days after the date that the small wood-fired combustor is first used.
2. The test was performed by a technician trained by the manufacturer of the small wood-fired combustor to observe the installation and commissioning of the small wood-fired combustor to determine if any problems occur with the installation or operation of the small wood-fired combustor.
3. The small wood-fired combustor was tested to confirm that it operates in accordance with the manufacturer's specifications and the test was performed for a minimum of three continuous hours at nominal load heat input and output capacity and for a minimum of three continuous hours at partial load heat input and output capacity, for each type of wood fuel that is intended to be used in the small wood-fired combustor.
4. The concentration of carbon monoxide and oxygen in the flue gas of the small wood-fired combustor was measured with a calibrated portable combustion gas analyser for each of the three-hour intervals described in paragraph 3.
5. Each piece of monitoring equipment mentioned in section 7 was assessed to determine that it functions correctly for each of the three-hour intervals described in paragraph 3.
6. Any necessary adjustments or repairs were made to ensure that the measurements obtained in accordance with paragraph 4 indicate the following concentrations:
 - i. the concentration of carbon monoxide averaged over each three-hour interval described in paragraph 3 is,

- A. less than 100 parts per million by volume (ppmv) corrected to 11 percent oxygen for nominal load heat input and output capacity, and
 - B. less than 200 ppmv corrected to 11 percent oxygen for partial load heat input and output capacity; and
 - ii. the concentration of oxygen averaged over each three-hour interval described in paragraph 3 is at least 5.5 percent by volume.
7. The results of the measurements obtained in accordance with paragraph 4, subject to any necessary adjustments or repairs identified in paragraph 6, were reviewed and correlated with the results of the measurements obtained in accordance with section 7 over the same period of time to determine if the small wood-fired combustor is performing well.

(2) The statement must set out the results of the test, including the five-minute block averages for each of the three hour intervals described in paragraph 3 of subsection (1) of the parameters set out in paragraph 4 of subsection (1) and section 7, a description of any problems that occurred with the installation or operation of the combustor during the test and any necessary adjustments or repairs made to address those problems and ensure that the small wood-fired combustor is operating in accordance with the manufacturer's recommendations and the requirement of the Regulation.

(3) The person mentioned in section 31 of the Regulation must ensure that a statement mentioned in paragraph 6 of section 31 of the Regulation must be retained for a period of 5-years after the date on which the small wood-fired combustor ceases to be used at the facility.

Routine Inspections or Remote Connection

9. (1) A person engaging in a prescribed activity that involves the use of a small wood-fired combustor must ensure that each small wood-fired combustor at the facility is,

- (a) physically inspected at least once a week in accordance with the manufacturer's recommendations, if any, by a person who has received training for the purposes of conducting such inspections; or
- (b) equipped with a 24-hour per day remote connection to either a designated facility staff member or a service contractor.

(2) A remote connection referred to in clause (1) (b) must be capable of communicating error or fault alarms, messages and notifications from the facility in the event of a malfunction of the small wood-fired combustor to enable a response in a timely manner to trouble-shoot and correct the malfunction by either attending to the combustor in person or engaging in two-way communication remotely with the combustor.

(3) A person engaging in a prescribed activity that involves the use of a small wood-fired combustor must ensure that the following records are created and retained at the facility for a period of five years from the date of its creation:

1. A record each inspection, including the date of the inspection and any maintenance activities performed.
2. Each record of a communication mentioned in subsection (2).

Performance Assessment

10. (1) The performance assessment mentioned in paragraph 7 of section 31 of the Regulation must include the following actions:

1. Inspection of the following items while the small wood-fired combustor is not operating,
 - i. fuel conveyance and handling equipment,
 - ii. indoor wood fuel storage area
 - iii. heat exchanger, air pollution control equipment, combustion air and flue gas ductwork,
 - iv. fans and dampers,
 - v. continuous monitoring devices,
 - vi. combustion chamber air injection nozzles, grates and refractory, and
 - vii. bottom ash and fly ash.
2. While the small wood-fired combustor is operating at or between nominal and partial heat load, measure the carbon monoxide and oxygen emission levels in the flue gas of the small wood-fired combustor over at least a 30-minute period using a calibrated portable combustion gas analyser and record the levels of those parameters.
3. Complete any necessary adjustments or repairs to ensure that the measurements obtained in accordance with paragraph 2 indicate the following concentrations:
 - i. the concentration of carbon monoxide averaged over the test period described in paragraph 2 is less than 100 parts per million by volume (ppmv) corrected to 11 percent oxygen and
 - ii. the concentration of oxygen averaged over the test period described in paragraph 2 is at least 5.5 percent by volume.
4. Determine if the small wood-fired combustor is performing well by reviewing:
 - i. the results of the measurements required by paragraph 2, subject to any necessary adjustments or repairs, and correlating those results with the results of the measurements obtained in accordance with section 7 over the same period;
 - ii. the maintenance, inspection and calibration records for each piece of continuous monitoring equipment mentioned in section 7.

(2) If the determination required by paragraph 4 of subsection (1) indicates that the small wood-fired combustor is not performing well, the person engaging in the activity must ensure that necessary adjustments or repairs are made in a manner that will ensure the small wood-fired combustor is operating in accordance with the manufacturer's recommendations and the requirements of the Regulation.

(3) For greater certainty, subsection (1) does not replace any inspection or preventative maintenance program recommended by the manufacturer and such recommendations must be implemented in addition to the requirements in subsection (1).

(4) The person engaging in the activity must ensure that a record of the results of each assessment is created and retained for a five-year period after the record is completed.

(5) A record created for the purpose of subsection (4) shall include the date on which the performance assessment is performed, the observed conditions of the items set out in paragraph 1 of subsection (1), the measurements made in accordance with paragraph 2 of subsection (1), a summary of the determination made in accordance with paragraph 4 of subsection (1) and a description of any adjustments or repairs made for the purpose of subsection (2).

Records

11. (1) For the purpose of paragraph 8 of section 31 of the Regulation, a person mentioned in that section must, in respect of each small wood-fired combustor that is used at the facility, retain a copy of the confirmation required by subsection 5 (3) at the facility at all times while engaging in the activity indicating whether any air pollution control equipment is required in order for the small wood-fired combustor to meet the design criteria set out in paragraph 1 of subsection 5(1).

(2) For the purpose of paragraph 8 of section 31 of the Regulation, a person mentioned in that section must ensure that the following records are created and retained for the applicable time period:

1. A tabulated summary of the types and specifications of wood fuels that have been or are intended to be stored and intended for use in each small wood-fired combustor at the facility must be created, maintained and retained at the facility. The summary must be retained at the facility at all times while engaging in the activity.
2. A tabulated summary of the design (including air pollution control equipment and EN 303-5 (2012) dust classification rating of Class 3, 4 or 5), operating and continuous monitoring aspects of each small wood-fired combustor at the facility must be created and retained at the facility at all times while engaging in the activity.
3. A copy of the manufacturer's design specifications, guaranteed emission limits and operating recommendations for each small wood-fired combustor must be retained at the facility for a period of five years after the date on which the small wood-fired combustor ceases to be used at the facility.
4. A copy of the wood fuel management plan and updates to the plan, if any, must be retained at the facility for at least five years after the day the plan is no longer being implemented at the facility.

5. The following records created in accordance with a procedure set out in the wood fuel management plan must be retained at the facility for a period of five years after the date the record is created:
 - i. A record of the quantity and specification of each type of wood fuel purchased for use in each small wood-fired combustor at the facility, the date of the purchase, the date of the fuel delivery to the facility and the source from which the fuel was purchased.
 - ii. A record of the type and specification of each type of wood fuel generated at the facility in each calendar year for use in a small wood-fired combustor at the facility and the amount of each type of wood fuel generated during that period.
 - iii. A record of the amount and intended specification of each type of wood fuel rejected as unacceptable for combustion at the facility in each calendar year and the reasons for the rejection, the date the wood fuel was rejected and the date it was removed from the facility.
 - iv. A record of the steps taken to ascertain whether wood fuel meets the applicable specifications, including the wood fuel type, the date the steps were taken and the results of the steps.
 - v. A record of each inspection conducted for the purpose of paragraph 4 of subsection 4 (1), including the date of the inspection, observations made during inspections and any steps taken to address any problems observed.
6. A record of the maintenance, inspection and calibration records for each piece of continuous monitoring equipment used to measure the parameters set out in subsection 7(1) which shall be retained at the facility for at least 12 months after the record is created.

Appendix A: Record of Publications

Version 1.0 - Environmental Activity and Sector Registry - Limits and Other Requirements (December, 2016)

Tracking	Date	Publishing Ministry
Version 1.0 Environmental Activity and Sector Registry - Limits and Other Requirements	Created December, 2016	Environment and Climate Change