

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER A-500-4227882192

Version: 1.0

Issue Date: November 24, 2023

Pursuant to section 20.3 of the Environmental Protection Act, Revised Statutes of Ontario (R.S.O.) 1990, c. E. 19 and subject to all other applicable Acts or regulations this Environmental Compliance Approval is issued to:

CHAPEL RIDGE FUNERAL HOME INC

8911 WOODBINE AVENUE (AV)
MARKHAM ONTARIO
L3R 5G1

For the following site:

2 Stalwart Industrial Drive, Whitchurch-Stouffville, Ontario.

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

- One (1) cremation unit (Thermogenic CU-200), equipped with primary combustion chamber equipped with a natural gas-fired burner having a maximum heat input of 850,000 kilojoules per hour, and a secondary combustion chamber equipped with natural gas fired burners having a total maximum heat input of 2,760,000 kilojoules per hour discharging into the air through a stack, having an exit diameter of 0.5 metre, extending 2.0 metres above the roof and 7.8 metres above grade ;
- Two (2) cremation units (Thermogenic CU-150), each complete with a primary combustion chamber equipped with a natural gas-fired burner having a maximum heat input of 640,000 kilojoules per hour and a secondary combustion chamber equipped with a natural gas fired burner having a maximum heat input of 2,300,000 kilojoules per hour, discharging into the air through a stack, having an exit diameter of 0.5 metre, extending 2.0 metres above the roof and 7.8 metres above grade;
- One (1) cremulator to process bone fragments into ash;

all in accordance with the Application for Approval (Air and Noise) dated July 13, 2023 and signed by Eric Tappenden and all supporting information including the ESDM Report and the Acoustic Assessment Report.

DEFINITIONS

For the purpose of this environmental compliance approval, the following definitions apply:

1. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Facility. "Acoustic Assessment Report" also means the Acoustic Assessment Report prepared by Trinity Consultants Ontario Inc., dated May 2023 and signed by Jeremy Schmitt;
2. "Approval" means this entire Environmental Compliance Approval, including the application and all supporting documentation listed above;

3. "Company" means Chapel Ridge Funeral Home Inc. that is responsible for the construction or operation of the Facility and includes any successors and assigns in accordance with section 19 of the EPA;
4. "Continuous Monitoring System" means the continuous monitoring system consisting of continuous monitors and recording devices;
5. "Director" means a person appointed for the purpose of section 20.3 of the EPA by the Minister pursuant to section 5 of the EPA;
6. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;
7. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended;
8. "Equipment" means the three (3) cremation units, described in the Company's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;
9. "ESDM Report" means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of O. Reg. 419/05 and the Procedure Document by Trinity Consultants, signed by Suzy Sabanathan and dated May 2023, submitted in support of the application, and includes any changes to the report made up to the date of issuance of this Approval;
10. "Facility" means the entire operation located on the property where the Equipment is located;
11. "Manager" means the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, or any other person who represents and carries out the duties of the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, as those duties relate to the conditions of this Approval;
12. "Manual" means a document or a set of documents that provide written instructions to staff of the Company;
13. "Minister" means the Minister of the Environment, Conservation and Parks or such other member of the Executive Council as may be assigned the administration of the EPA under the Executive Council Act;
14. "Ministry" means the ministry of the Minister;
15. "Noise Control Measures" means measures to reduce the noise emission from the Facility including, but not limited to silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers;
16. "O. Reg. 419/05" means Ontario Regulation 419/05: Air Pollution – Local Air Quality, made under the EPA;
17. "Performance Requirements" means the performance requirements and emission limits specified in the sections of this Approval titled "Operating Parameters", "Emission Concentration Limits", and "Noise";
18. "Point of Impingement" has the same meaning as in section 2 of O. Reg. 419/05;
19. "Pre-Test Plan" means a plan for the Source Testing including the information required in Section 5 of the Source Testing Code;
20. "Procedure Document" means Ministry guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, as amended;
21. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995 as amended;
22. "Publication NPC-300" means the Ministry Publication NPC-300, "Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300", August 2013, as amended;
23. "Report EPS 1/PG/7" means the document titled "Protocols and Performance Specifications for Continuous Monitoring of Gaseous Emissions from Thermal Power Generation - Report EPS 1/PG/7" published by Environment Canada in December 2005, as amended;
24. "Schedules" means the following schedules attached to this Approval and forming part of this Approval namely:
 - Schedule 1 – Source Testing Procedures;

- Schedule 2 – Test Contaminants;
- Schedule 3 – Continuous Temperature Monitoring System;
- Schedule 4 – Continuous Oxygen Monitoring System; and
- Schedule 5 – Continuous Carbon Monoxide Monitoring System;

25. "Source Testing Code" means the Ontario Source Testing Code, dated June 2010, prepared by the Ministry, as amended; and
26. "Source Testing" means site-specific sampling and testing to measure emissions resulting from operating a representative unit of the Equipment, under operating conditions that will derive an emission rate that, for the relevant averaging period of the contaminant, is at least as high as the maximum emission rate that the source of contaminant is reasonably capable of, or a rate approved by the Manager within the approved operating range of the representative unit of the Equipment which satisfies paragraph 1 of subsection 11(1) of O. Reg. 419/05;
27. "Test Contaminants" means the contaminants listed in Schedule 2.

TERMS AND CONDITIONS

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

1. OPERATING PARAMETERS

1. The Company shall ensure that the Equipment is designed and operated to comply, when the Equipment is operating, with the following performance requirements:
 - a. the temperature at the outlet of the primary combustion chamber, as recorded by the Continuous Monitoring System, shall be at least 800 degrees Celsius for at least 30 minutes during the last part of each cremation;
 - b. the temperature in the secondary combustion chamber, as recorded by the Continuous Monitoring System, shall be at least 1,000 degrees Celsius before the primary combustion chamber is loaded and thereafter throughout each cremation; and
 - c. the residence time of the combustion gases in the secondary combustion chamber shall be at a minimum one second at a temperature of at least 1,000 degrees Celsius.

2. EMISSION CONCENTRATION LIMITS

1. The Company shall ensure that the Equipment is designed and operated to comply, when the Equipment is operating, with the following performance requirements:
 - a. the concentration of oxygen in the undiluted flue gas leaving the secondary chamber, as recorded by the Continuous Monitoring System, shall not be less than 6 percent by volume on a dry basis, calculated as a 10-minute average;
 - b. the half-hour average concentration of carbon monoxide in the undiluted flue gases leaving the secondary combustion chamber, as recorded by the Continuous Monitoring System, shall not exceed 100 parts per million by volume, on a dry basis normalized to 11 percent oxygen; and
 - c. the concentration of organic matter having a carbon content, expressed as equivalent methane (Total Hydrocarbon Compounds), being an average of ten measurements taken at approximately one minute intervals, shall not be greater than 100 parts per million by volume, measured on an undiluted basis.

3. NOISE

1. The Company shall, at all times, ensure that the noise emissions from the Facility comply with the limits set out in

4. OPERATION AND MAINTENANCE

1. The Company shall ensure that the Facility/Equipment is properly operated and maintained at all times. The Company shall:
 - a. prepare, before commencement of operation of the Equipment, and update, as necessary, a Manual outlining the operating procedures and a maintenance program for the Equipment, including:
 - i. routine and emergency operating and maintenance procedures in accordance with good engineering practices, including annual inspection procedures as recommended by the Equipment and Continuous Monitoring System suppliers;
 - ii. emergency procedures;
 - iii. procedures to control all discharges from the Equipment in the event of loss or failure of power source to the Equipment;
 - iv. procedures for any record keeping activities relating to operation and maintenance of the Equipment;
 - v. procedures for operator training which is to be provided by an individual experienced with the Equipment;
 - vi. procedures for optimizing the operation of the Equipment to minimize the emissions from the Equipment; and
 - vii. procedures for recording and responding to complaints regarding the operation of the Equipment;
 - b. implement the recommendations of the Manual.
2. The Company shall ensure that the primary combustion chamber is not loaded unless the associated Continuous Monitoring System is fully operational.
3. The Company shall make all reasonable efforts to ensure that all metallic handles are removed from the caskets before they are loaded into the Equipment.
4. The Company shall install and maintain visual and audible alarm systems to alert the Equipment operators of any potential deviation from the above Performance Requirements for parameters that are continuously monitored by the applicable Continuous Monitoring System and shall forthwith take all reasonable actions to bring the Equipment into compliance with all Performance Requirements.

5. COMPLAINTS RESPONSE PROCEDURE

1. If, at any time, the Company receives an environmental complaint from the public regarding the operation of the Equipment approved by this Approval, the Company shall take the following steps:
 - a. Record and number each complaint, either electronically or in a log book. The record shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time of the incident to which the complaint relates and, if known, the address of the complainant.
 - b. Notify the District Manager of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the District Manager.
 - c. Initiate appropriate steps to determine all possible causes of the complaint and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.
 - d. Complete and retain on-site a report written within five (5) business days of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.

6. SOURCE TESTING

1. The Company shall perform Source Testing in accordance with the procedures in Schedule 1 to determine the rates of emissions of the Test Contaminants from one (1) representative unit of the Equipment.

7. CONTINUOUS MONITORING

1. The Company shall, prior to the commencement of operation of the Equipment, install and subsequently conduct and maintain a program to continuously monitor:
 - a. the temperature at the outlet of the primary chamber of the Equipment;
 - b. the temperature at the location in the secondary chamber of the cremator where the minimum retention time of the combustion gases at a minimum temperature of 1,000 degrees Celsius for at least one second is achieved; and
 - c. the concentration of carbon monoxide and the concentration of oxygen in the undiluted gases leaving the secondary chamber of the Equipment.
2. The Continuous Monitoring System shall be equipped with continuous recording devices and shall comply with the requirements outlined in the attached Schedules 3, 4, and 5.

8. RECORD RETENTION

1. The Company shall maintain and retain for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the operation of the Equipment, and monitoring and recording activities required by this Approval. These records shall be made available to staff of the Ministry upon request in a timely manner. The Company shall retain:
 - a. number of daily cremations;
 - b. records of each load processed by the Equipment including:
 - i. a description of the material of construction of the casket;
 - ii. type of finish on the casket;
 - iii. description of any hardware not removed from the casket;
 - iv. estimated weight of the body and casket; and
 - v. start and finish time of the cremation;
 - c. all original records produced by the Source Testing and the recording devices associated with the Continuous Monitoring System;
 - d. records of all excursions from the applicable Performance Requirements as measured by the Continuous Monitoring System, duration of the excursions, reasons for the excursions and corrective measures taken to eliminate the excursions;
 - e. all records on maintenance, repair and inspection of the Equipment and the Continuous Monitoring System;
 - f. description of any upset conditions associated with the operation of the Equipment and remedial action taken;
 - g. all records on operator training, including:
 - i. date of training;
 - ii. name and signature of person who has been trained; and
 - iii. description of the training provided; and
 - h. all records related to environmental complaints made by the public as required by Condition 5 of this Approval.

REASONS

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

1. OPERATING PARAMETERS, EMISSION CONCENTRATION LIMITS AND NOISE

Conditions No. 1, 2 and 3 are included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Facility/Equipment.

2. OPERATION AND MAINTENANCE

Condition No. 4 is included to emphasize that the Equipment must be operated and maintained according to a procedure that will result in compliance with the EPA, the regulations and this Approval.

3. COMPLAINTS RESPONSE PROCEDURE

Condition No. 5 is included to require the Company to respond to any environmental complaints regarding the operation of the Equipment, according to a procedure that includes methods for preventing recurrence of similar incidents.

4. SOURCE TESTING AND CONTINUOUS MONITORING

Conditions No. 6 and 7 are included to require the Company to gather accurate information so that the environmental impact and subsequent compliance with the EPA, the regulations and this Approval can be verified.

5. RECORD RETENTION

Condition No. 8 is included to require the Company to keep records and provide information to the Ministry so that the environmental impact and subsequent compliance with the EPA, the regulations and this Approval can be verified.

APPEAL PROVISIONS

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me and the Ontario Land Tribunal, within 15 days after the service of this notice, require a hearing by the Tribunal. You must also provide notice to, the Minister of the Environment, Conservation and Parks in accordance with Section 47 of the *Environmental Bill of Rights, 1993* who will place notice of your appeal on the Environmental Registry. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

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

The Notice should also include:

- I. The name of the appellant;
- II. The address of the appellant;
- III. The environmental compliance approval number;
- IV. The date of the environmental compliance approval;
- V. The name of the Director, and;
- VI. The municipality or municipalities within which the project is to be engaged in.

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

This Notice must be served upon:

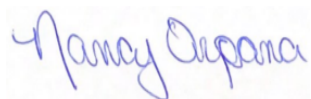
Registrar* Ontario Land Tribunal 655 Bay Street, Suite 1500 Toronto, Ontario M5G 1E5 OLT.Registrar@ontario.ca	and	The Minister of the Environment, Conservation and Parks 777 Bay Street, 5th Floor Toronto, Ontario M7A 2J3	and	The Director appointed for the purposes of Part II.1 of the <i>Environmental Protection Act</i> Ministry of the Environment, Conservation and Parks 135 St. Clair Avenue West, 1st Floor Toronto, Ontario M4V 1P5
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*** Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.gov.on.ca**

This instrument is subject to Section 38 of the *Environmental Bill of Rights, 1993*, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at ero.ontario.ca, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act*.

Dated at Toronto this 24th day of November, 2023



Nancy Orpana

Director

appointed for the purposes of Part II.1 of the Environmental Protection Act

c: Eric Tappenden, CHAPEL RIDGE FUNERAL HOME & CREMATION CENTRE
Shajetha Sabanathan, Trinity Consultants Ontario Inc.
Jeremy J Schmitt, Trinity Consultants Ontario Inc.

The following schedules are a part of this environmental compliance approval:

SCHEDULE 1

Source Testing Procedures

1. The Company shall submit, not later than three (3) months after commencement of operation of the Equipment, to the Manager a Pre-Test Plan for the Source Testing required under this Approval.
2. The Company shall finalize the Pre-Test Plan in consultation with the Manager.
3. The Company shall not commence the Source Testing required under this Approval until the Manager has accepted the Pre-Test Plan.
4. The Company shall complete the Source Testing, no later than three (3) months after the Manager has approved the Pre-Test Plan, or a date agreed upon in consultation with the District Manager.
5. The Company shall notify the Manager, the District Manager and the Director in writing of the location, date and time of any impending Source Testing required by this Approval, at least fifteen (15) days prior to the Source Testing.
6. The Company shall submit a report (electronic format) on the Source Testing to the Manager, the District Manager and the Director not later than three (3) months after completing the Source Testing. The report shall be in the format described in the Source Testing Code, and shall also include, but not be limited to:
 - a. an executive summary;
 - b. all records of the operating conditions at the time of Source Testing, including but not limited to the following:
 - i. description of the material of construction of the casket;
 - ii. type of finish on the casket;
 - iii. description of any hardware not removed from the casket;
 - iv. estimated weight of the body as per the information obtained from the funeral home; and
 - v. start and finish time of each cremation;
 - c. all records produced by the Continuous Monitoring System;
 - d. all records of the cremator settings during the cremation;
 - e. the results of Source Testing, including the emission rate and emission concentration of the Test Contaminants;
 - f. a tabular comparison of calculated emission rates based on Source Testing results for the Test Contaminants to relevant estimates described in the ESDM Report;
 - g. results of the calculation of the residence time of the combustion gases in the secondary combustion chamber at a minimum temperature of 1,000 degrees Celsius; and
 - h. recommendations for optimizing the operation of the Equipment to minimize the emissions from the Equipment.
7. The Director may not accept the results of the Source Testing if:
 - a. the Source Testing Code or the requirements of the Manager were not followed; or
 - b. the Company did not notify the Manager, the District Manager and the Director of the Source Testing; or
 - c. the Company failed to provide a complete report on the Source Testing.
8. If the Director does not accept the results of the Source Testing, the Director may require re-testing. If re-testing is required, the Pre-Test Plan strategies need to be revised and submitted to the Manager for approval. The actions taken to minimize the possibility of the Source Testing results not being accepted by the Director must be noted in the

revision.

9. The Company shall update their ESDM Report in accordance with Section 26 of O. Reg. 419/05 and the Procedure Document with the results from the Source Testing if any of the calculated emission factors or calculated emission rates are higher than the predicted rates in the ESDM Report, not later than three (3) months after the submission of the Source Testing report and make these records available for review by staff of the Ministry upon request.

SCHEDULE 2

Test Contaminants

- Total Suspended Particulate Matter
- Total Hydrocarbon Compounds
- Hydrogen Chloride
- Benzo(a)pyrene
- Naphthalene

List of Metals

- Antimony
- Arsenic
- Barium
- Beryllium
- Cadmium
- Chromium
- Cobalt
- Copper
- Lead
- Mercury
- Molybdenum
- Nickel
- Selenium
- Silver
- Thallium
- Vanadium
- Zinc

List of Dioxins, Furans and Dioxin-like PCBs

- 2,3,7,8-Tetrachlorodibenzo-p-dioxin [2,3,7,8-TCDD]
- 1,2,3,7,8-Pentachlorodibenzo-p-dioxin [1,2,3,7,8-PeCDD]
- 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin [1,2,3,4,7,8-HxCDD]
- 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin [1,2,3,6,7,8-HxCDD]

- 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin [1,2,3,7,8,9-HxCDD]
- 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin [1,2,3,4,6,7,8-HpCDD]
- 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin [1,2,3,4,6,7,8,9-OCDD]
- 2,3,7,8-Tetrachlorodibenzofuran [2,3,7,8-TCDF]
- 2,3,4,7,8-Pentachlorodibenzofuran [2,3,4,7,8-PeCDF]
- 1,2,3,7,8-Pentachlorodibenzofuran [1,2,3,7,8-PeCDF]
- 1,2,3,4,7,8-Hexachlorodibenzofuran [1,2,3,4,7,8-HxCDF]
- 1,2,3,6,7,8-Hexachlorodibenzofuran [1,2,3,6,7,8-HxCDF]
- 1,2,3,7,8,9-Hexachlorodibenzofuran [1,2,3,7,8,9-HxCDF]
- 2,3,4,6,7,8-Hexachlorodibenzofuran [2,3,4,6,7,8-HxCDF]
- 1,2,3,4,6,7,8-Heptachlorodibenzofuran [1,2,3,4,6,7,8-HpCDF]
- 1,2,3,4,7,8,9-Heptachlorodibenzofuran [1,2,3,4,7,8,9-HpCDF]
- 1,2,3,4,6,7,8,9-Octachlorodibenzofuran [1,2,3,4,6,7,8,9-OCDF]
- 3,3',4,4'-Tetrachlorobiphenyl [3,3',4,4'-tetraCB (PCB 77)]
- 3,4,4',5'-Tetrachlorobiphenyl [3,4,4',5'-tetraCB (PCB 81)]
- 3,3',4,4',5'-Pentachlorobiphenyl (PCB 126) [3,3',4,4',5'-pentaCB (PCB 126)]
- 3,3',4,4',5,5'-Hexachlorobiphenyl [3,3',4,4',5,5'-hexaCB (PCB 169)]
- 2,3,3',4,4'-Pentachlorobiphenyl [2,3,3',4,4'-pentaCB (PCB 105)]
- 2,3,4,4',5'-Pentachlorobiphenyl [2,3,4,4',5'-pentaCB (PCB 114)]
- 2,3',4,4',5'-Pentachlorobiphenyl [2,3',4,4',5'-pentaCB (PCB 118)]
- 2',3,4,4',5'-Pentachlorobiphenyl [2',3,4,4',5'-pentaCB (PCB 123)]
- 2,3,3',4,4',5'-Hexachlorobiphenyl [2,3,3',4,4',5'-hexaCB (PCB 156)]
- 2,3,3',4,4',5'-Hexachlorobiphenyl [2,3,3',4,4',5'-hexaCB (PCB 157)]
- 2,3',4,4',5,5'-Hexachlorobiphenyl [2,3',4,4',5,5'-hexaCB (PCB 167)]
- 2,3,3',4,4',5,5'-Heptachlorobiphenyl [2,3,3',4,4',5,5'-heptaCB (PCB 189)]

SCHEDULE 3

Continuous Temperature Monitoring System

PARAMETER:

Temperature

LOCATION:

The sample points of the Continuous Temperature Monitor shall be located in:

1. the outlet of the primary chamber; and
2. the secondary chamber where the minimum retention time of the combustion gases at a minimum temperature of 1,000 degrees Celsius for at least one second is achieved.

PERFORMANCE:

The Continuous Temperature Monitor shall meet the following minimum performance specifications for the following parameters:

PARAMETERS	SPECIFICATION
Type	shielded "K" type thermocouple, or equivalent
Accuracy	± 1.5 percent of the minimum gas temperature

DATA RECORDER:

The data recorder must be capable of registering continuously the measurement of the monitor without a significant loss of accuracy and with a time resolution of 1 minute or better.

RELIABILITY:

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 95 percent of the time for each calendar quarter.

SCHEDULE 4

Continuous Oxygen Monitoring System

PARAMETER:

Oxygen

INSTALLATION:

The Continuous Oxygen Monitor shall be installed at an accessible location where the measurements are representative of the actual concentration of oxygen in the undiluted gases leaving the secondary chamber of the Equipment and shall meet the following installation specifications:

PARAMETERS	SPECIFICATION
Range (percentage)	0 to 20 or 0 to 25
Calibration Gas Ports	close to the sample point

PERFORMANCE:

The Continuous Oxygen Monitor shall meet the following minimum performance specifications for the following parameters:

PARAMETERS	SPECIFICATION
Span Value (percentage)	80 to 100 percent of full scale
Relative Accuracy	the greater of less than or equal to 10 percent of the mean value of the reference method test data or 0.5 percent O ₂ average absolute difference
Calibration Error	0.5 percent O ₂
System Bias	the greater of less than or equal to 4 percent of the mean value of the reference method test data or 0.5 percent O ₂ average absolute difference
Procedure for Zero and Span Calibration Check	all system components checked
Zero Calibration Drift (24-hour)	less than or equal to 0.5 percent O ₂
Span Calibration Drift (24-hour)	less than or equal to 0.5 percent O ₂
Response Time (90 percent response to a step change)	less than or equal to 180 seconds
Operational Test Period	at least 168 hours without corrective maintenance

CALIBRATION:

Daily calibration drift checks on the monitor shall be performed and recorded in accordance with the requirements of Report EPS 1/PG/7.

DATA RECORDER:

The data recorder must be capable of registering continuously the measurement of the monitor with an accuracy of 0.5 percent of a full scale reading or better and with a time resolution of 2 minutes or better.

RELIABILITY:

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 90 percent of the time for each calendar quarter during the first full year of operation, and 95 percent, thereafter.

SCHEDULE 5

Continuous Carbon Monoxide Monitoring System

PARAMETER:

Carbon Monoxide

INSTALLATION:

The Continuous Carbon Monoxide Monitor shall be installed at an accessible location where the measurements are representative of the actual concentration of carbon monoxide in the undiluted gases leaving the secondary chamber of the Equipment and shall meet the following installation specifications:

PARAMETERS	SPECIFICATION
Range (parts per million, ppm)	0 to highest concentration anticipated from the source
Calibration Gas Ports	close to the sample point

PERFORMANCE:

The Continuous Carbon Monoxide Monitor shall meet the following minimum performance specifications for the following parameters:

PARAMETERS	SPECIFICATION
Span Value (nearest ppm equivalent)	80 to 100 percent of full scale
Relative Accuracy	the greater of less than or equal to 10 percent of the mean value of the reference method test data or 5 ppm average absolute difference
Calibration Error	less than or equal to 2 percent of the actual concentration
System Bias	The greater of less than or equal to 4 percent of the mean value of the reference method test data or 5 ppm average absolute difference
Procedure for Zero and Span Calibration Check	all system components checked
Zero Calibration Drift (24-hour)	less than or equal to 5 percent of span value
Span Calibration Drift (24-hour)	less than or equal to 5 percent of span value
Response Time (90 percent response to a step change)	less than or equal to 180 seconds
Operational Test Period	at least 168 hours without corrective maintenance

CALIBRATION:

Daily calibration drift checks on the monitor shall be performed and recorded in accordance with the requirements of Report EPS 1/PG/7.

DATA RECORDER:

The data recorder must be capable of registering continuously the measurement of the monitor with an accuracy of 0.5 percent of a full scale reading or better and with a time resolution of 2 minutes or better.

RELIABILITY:

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 90 percent of the time for each calendar quarter during the first full year of operation, and 95 percent, thereafter.