



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING



LIESL EICHLER CLARK
DIRECTOR

May 18, 2021

UPS NEXT DAY DELIVERY

Ms. Laurie Leaman
St. Marys Cement, Inc. Charlevoix Plant
16000 Bells Bay Road
Charlevoix, Michigan 49720

Dear Ms. Leaman:

Enclosed is the final signed copy of the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), Stipulation for Entry of Final Order by Consent (Consent Order) AQD No. 2021-09 for St. Marys Cement, Inc. Charlevoix Plant.

The effective date of this Consent Order was May 17, 2021. Please refer to paragraph 18 for payment information. Payment is due on or before June 17, 2021. To ensure proper credit, all payments made pursuant to this Consent Order must include the Payment Identification No. AQD40264.

Thank you for your cooperation. If you have any questions, please feel free to contact me.

Sincerely,

Erin Moran
Enforcement Unit
Air Quality Division
MoranE@Michigan.gov

Enclosure

cc/enc: Ms. Sarah Marshall, U.S. Environmental Protection Agency, Region 5
Mr. Neil Gordon, Michigan Department of Attorney General
Mr. Christopher Ethridge, EGLE
Mr. Shane Nixon, EGLE
Ms. Jenine Camilleri, EGLE
Mr. Rob Dickman, EGLE

STATE OF MICHIGAN
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
OFFICE OF THE DIRECTOR

In the matter of administrative proceedings
against **ST. MARYS CEMENT U.S., LLC**, a
corporation organized under the laws of the
State of Michigan and doing business at
16000 Bells Bay Road in the City of
Charlevoix, County of Charlevoix, State of
Michigan

AQD No. 2021-09

SRN: B1559

STIPULATION FOR ENTRY OF FINAL ORDER
BY CONSENT

This proceeding resulted from allegations by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD) against St. Marys Cement U.S., LLC (Company), a corporation organized under the laws of the State of Michigan and doing business at 16000 Bells Bay Road, City of Charlevoix, County of Charlevoix, State of Michigan, with State Registration Number (SRN) B1559 (Facility). EGLE alleges that the Company violated the National Emissions Standards for Hazardous Air Pollutants (NESHAP) from the Portland Cement Manufacturing Industry, 40 CFR 63.1340 *et seq.*; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, MCL 324.5501 *et seq.*, and the administrative rules promulgated thereunder; and the conditions of Permit to Install (PTI) No. 140-15, PTI No. 115-15, and Renewable Operating Permit (ROP) No. MI-ROP-B1559-2014. Specifically, EGLE alleges that the Company exceeded the permitted emission limits for: particulate matter equal to or less than 10 microns (PM₁₀) and particulate matter equal to or less than 2.5 microns (PM_{2.5}) from the Clinker Cooler (EUCLINKERCOOL); PM₁₀, PM_{2.5}, nitrogen oxide (NO_x), sulfur dioxide (SO₂), opacity, organic hazardous air pollutants (OHAP), and hydrochloric acid (HCl) from the Inline Kiln (EUINLINEKILN) and has exceeded and continues to exceed PM₁₀ and PM_{2.5} emission limitations for EUINLINEKILN; failed to maintain adequate records for the Source-Wide Fugitive Dust Control Plan and the Bag Leak Detection System (BLDS) for the Solid Fuel System (EUSOLIDFUELSYSTEM); failed to install a required BLDS on the baghouse controlling the Blend Silo (EUBLENDSILO); failed to properly monitor system

downtime for mercury (Hg) for the EUINLINEKILN; and failed to conduct a valid test for OHAP from the Inline Kiln, as cited herein and in the Violation Notices dated December 19, 2018; February 12, 2019; May 29, 2019; October 2, 2019; March 25, 2020; June 4, 2020; and October 9, 2020. The Company and EGLE stipulate to the termination of this proceeding by entry of a Stipulation for Entry of a Final Order by Consent (Consent Order).

The Company and EGLE stipulate as follows:

1. The Natural Resources and Environmental Protection Act (NREPA), MCL 324.101 *et seq.*, is an act that controls pollution to protect the environment and natural resources in this State.

2. Article II, Pollution Control, Part 55 of the NREPA (Part 55), MCL 324.5501 *et seq.*, provides for air pollution control regulations in this State.

3. Executive Order 2019-06 renamed the Michigan Department of Environmental Quality as EGLE, and EGLE and has all statutory authority, powers, duties, functions and responsibilities to administer and enforce all provisions of Part 55.

4. The EGLE Director has delegated authority to the Director of the AQD (AQD Director) to enter into this Consent Order.

5. The termination of this matter by a Consent Order pursuant to Section 5528 of Part 55, MCL 324.5528, is proper and acceptable.

6. The Company and EGLE agree that the signing of this Consent Order is for settlement purposes only and does not constitute an admission by the Company that the law has been violated.

7. This Consent Order becomes effective on the date of execution (effective date of this Consent Order) by the AQD Director.

8. The Company shall achieve and maintain compliance with the aforementioned regulations and permit limitations in accordance with the requirements contained in this Consent Order.

COMPLIANCE PROGRAM AND IMPLEMENTATION SCHEDULE

9. Rules

A. On and after the effective date of this Consent Order, the Company shall

comply with the alternative emission limit of 12 ppmvd for total OHAP in 40 CFR 63.1343, Table 1, Item 1, Footnote 4.

B. On and after the effective date of this Consent Order, the Company shall comply with applicable requirements of 40 CFR 63.1343(b)(1).

C. On and after the effective date of this Consent Order, the Company shall comply with 40 CFR 63.1349(b)(7) and the applicable requirements for OHAP testing in Part 10 of the Michigan Air Pollution Control Rules , Mich Admin Code, R 336.2001 *et seq.*

10. Permit

A. On and after the effective date of this Consent Order, the Company shall comply with the SO₂ emission limits for EUINLINEKILN as specified in Conditions I.4 and I.5 of PTI No. 140-15, as amended.

B. On and after the effective date of this Consent Order, the Company shall comply with the 700 pph NO_x emission limit for EUINLINEKILN as specified in Condition I.6 of PTI No. 140-15, as amended.

C. On and after the effective date of this Consent Order, the Company shall comply with the 2.8 lbs/ton of clinker produced NO_x emission limit for EUINLINEKILN as specified in Condition I.7 of PTI No. 140-15, as amended.

D. Upon issuance of PTI 140-15B and as amended, the Company shall comply with the opacity, PM₁₀, and PM_{2.5} emission limits for EUINLINEKILN.

E. On and after the effective date of this Consent Order, the Company shall comply with the PM₁₀ and PM_{2.5} emission limits for EUCLINKERCOOLER as specified in PTI No. 140-15, as amended.

F. On and after the effective date of this Consent Order, the Company shall comply with the requirements for the Fugitive Dust Control Plan, as specified in Source-Wide Conditions VI.2 and IX.2 of ROP No. MI-ROP-B1559-2014, as amended.

G. On and after the effective date of this Consent Order, the Company shall comply with the recordkeeping requirements for EUSOLIDFUELSYSTEM, as specified in Condition VI.3.g of PTI No. 140-15, as amended.

H. On and after the effective date of this Consent Order, the Company shall comply with the equipment parameters for EUBLENDSILO, as specified in Condition IV.1 of PTI No. 115-15, as amended.

11. Plans

A. On and after the effective date of this Consent Order, the Company shall implement the Source-Wide Malfunction Abatement Plan (MAP) as approved by AQD and any amendment to the MAP approved by AQD. The MAP shall be incorporated by reference into this Consent Order and shall be an enforceable part of this Consent Order.

B. On and after the effective date of this Consent Order, the Company shall implement the SO₂ Management Plan as approved by AQD and any amendment to the Plan approved by AQD. The SO₂ Management Plan shall be incorporated by reference into this Consent Order and shall be an enforceable part of this Consent Order.

12. Testing

A. PM₁₀ and PM_{2.5} from the Inline Kiln

1. The Company shall conduct performance testing as specified in PTI No. 140-15B demonstrating compliance with the PM₁₀ and PM_{2.5} emission limits for EUINLINEKILN.

2. No later than thirty (30) days before testing, the Company shall submit to the AQD Cadillac District Supervisor and the AQD Technical Programs Unit Supervisor, for review and approval, a test plan for PM₁₀ and PM_{2.5} for EUINLINEKILN that meets the requirements specified in Exhibit A of this Consent Order.

3. Not less than seven (7) days prior to any stack testing that will be used to demonstrate compliance with the PM₁₀ and PM_{2.5} emission limits for EUINLINEKILN, the Company or an authorized agent shall notify the AQD Cadillac District Supervisor and the AQD Technical Programs Unit Supervisor in writing of the time and place of the tests and who shall conduct them. A representative of AQD shall have the opportunity to witness the tests.

4. Within sixty (60) days after a completed test, the Company shall submit to the AQD Cadillac District Supervisor and the AQD Technical Programs Unit Supervisor a test report that includes the test data and results.

B. If the Company fails to demonstrate compliance with the OHAP, PM₁₀, or PM_{2.5} emission limits for EUINLINEKILN, the Company shall conduct a retest within 60 days after the submittal date of the test report.

13. Inspections and Installations

A. On and after the effective date of this Consent Order, the Company shall conduct monthly inspections on the sensor for the BLDS on EUSOLIDFUELSYSTEM and shall document these inspections.

B. On and after the effective date of this Consent Order, the Company shall verify monthly that the data archiving system for the BLDS is properly functioning and shall document these verifications.

14. Reports

A. On and after the effective date of this Consent Order, the Company shall submit, for the first four (4) calendar quarters, quarterly reports to the AQD Cadillac District Supervisor certifying compliance with the recordkeeping requirements described in paragraphs 10.F and 10.G of this Consent Order, within sixty (60) days after the end of each quarter.

B. On and after the effective date of this Consent Order, the Company shall submit, for the first four (4) calendar quarters, quarterly reports to the AQD Cadillac District Supervisor describing any excess HCl emissions within sixty (60) days after the end of each quarter. The report shall include the duration, cause, concentration in ppmvd at 7 percent Oxygen, and remedial action taken for each emissions limit exceedance. The report shall also include, consistent with the requirements of 40 CFR 63.1354(b)(10), the duration, cause, and remedial action taken for each excess monitoring system downtime incident during the quarter. This report shall include the information specified in 40 CFR 60.7.

C. On and after the effective date of this Consent Order, the Company shall submit, for the first four (4) calendar quarters, quarterly reports describing any excess Total Hydrocarbon (THC) emissions, within sixty (60) days of the end of each quarter. Excess emissions are defined as emissions 10 percent or more above the calculated emission limit as determined on a 30 operating day rolling average basis per 40 CFR 63.1349(b)(7). The report shall include the duration, cause, and remedial action taken for each emissions limit exceedance and the duration, cause, and remedial action taken for monitoring system downtime during the quarter. This report shall include the information specified in 40 CFR 60.7.

15. Force Majeure

A. The Company shall perform the requirements of this Consent Order within the time limits established herein, unless performance is prevented or delayed by events that

constitute a "Force Majeure". Any delay in the performance attributable to a "Force Majeure" shall not be deemed a violation of the Company's obligations under this Consent Order in accordance with this section.

B. For the purpose of this Consent Order, "Force Majeure" means an occurrence or nonoccurrence arising from causes not foreseeable, beyond the control of, and without the fault of the Company, such as: an Act of God, untimely review of permit applications or submissions by EGLE or other applicable authority, and acts or omissions of third parties that could not have been avoided or overcome by the Company's diligence and that delay the performance of an obligation under this Consent Order. "Force Majeure" does not include, among other things, unanticipated or increased costs, changed financial circumstances, or failure to obtain a permit or license as a result of the Company actions or omissions.

C. The Company shall notify EGLE, by telephone, within forty-eight (48) hours of discovering any event that may cause a delay in its compliance with any provision of this Consent Order. Verbal notice shall be followed by written notice within ten (10) calendar days and shall describe, in detail, the anticipated length of delay, the precise cause or causes of delay, the measures taken by the Company to prevent or minimize the delay, and the timetable by which those measures shall be implemented. The Company shall adopt all reasonable measures to avoid or minimize any such delay.

D. Failure of the Company to comply with the notice requirements and time provisions under paragraph 10.C shall render this paragraph 10 void and of no force and effect as to the particular incident involved. EGLE may, at its sole discretion and in appropriate circumstances, waive in writing the notice requirements of paragraph 10.C, above.

E. If the parties agree that the delay or anticipated delay was beyond the control of the Company, this may be so stipulated, and the parties to this Consent Order may agree upon an appropriate modification of this Consent Order. However, EGLE is the final decision-maker on whether or not the matter at issue constitutes a "Force Majeure". The burden of proving that any delay was beyond the reasonable control of the Company and that all the requirements of this paragraph 10 have been met by the Company rests with the Company.

F. An extension of one compliance date based upon a particular incident does not necessarily mean that the Company qualifies for an extension of a subsequent compliance

date without providing proof regarding each incremental step or other requirement for which an extension is sought.

GENERAL PROVISIONS

16. This Consent Order in no way affects the Company's responsibility to comply with any other applicable state, federal, or local laws or regulations, including without limitation, any amendments to the federal Clean Air Act, 42 USC 7401 *et seq.*, Part 55 or their rules and regulations, or to the State Implementation Plan.

17. This Consent Order constitutes a civil settlement and satisfaction as to the resolution of the violations specifically addressed herein; however, it does not resolve any criminal action that may result from these same violations.

18. Within thirty (30) days after the effective date of this Consent Order, the Company shall pay to the General Fund of the State of Michigan, in the form of a check made payable to the "State of Michigan" and mailed to the Michigan Department of Environment, Great Lakes, and Energy, Accounting Services Division, Cashier's Office, P.O. Box 30657, Lansing, Michigan 48909-8157, a settlement amount of \$213,004.00 which includes AQD costs for investigation and enforcement. This total settlement amount shall be paid within thirty (30) days after the effective date of this Consent Order. To ensure proper credit, all payments made pursuant to this Consent Order shall include the "Payment Identification Number AQD40264" on the front of the check and/or in the cover letter with the payment. This settlement amount is in addition to any fees, taxes, or other fines that may be imposed on the Company by law.

19. On and after the effective date of this Consent Order, if the Company fails to comply with paragraphs 9.A, 10.D, or 10.E of this Consent Order, the Company is subject to a stipulated fine of up to \$5,000.00 per violation per day, limited to a maximum of \$50,000 per stack testing event for each pollutant. On and after the effective date of this Consent Order, if the Company fails to comply with paragraphs 12.A.1 of this Consent Order, the Company is subject to a stipulated fine of up to \$5,000.00 per violation per day. On and after the effective date of this Consent Order, if the Company fails to comply with paragraphs 9.B 9.C, or 10.C of this Consent Order, the Company is subject to a stipulated fine of up to \$5,000.00 per violation. On and after the effective date of this Consent Order, if the Company fails to comply with paragraphs 12.A.2, 12.A.4, 12.B, 12.C, 14.A, 14.B, or 14.C of this Consent Order, the Company

is subject to a stipulated fine of up to \$2,500.00 per violation per day. On and after the effective date of this Consent Order, if the Company fails to comply with paragraphs 10.F, 10.G, 10.H, 11.A, 11.B, 12.A.3, 13.A, or 13.B of this Consent Order, the Company is subject to a stipulated fine of up to \$1,000.00 per violation per day. On and after the effective date of this Consent Order, if the Company fails to comply with paragraphs 10.A or 10.B, the Company is subject to a stipulated fine of up to \$250.00 per violation, limited to a maximum of \$2,500.00 per day. The amount of the stipulated fines imposed pursuant to this paragraph shall be within the discretion of EGLE. Stipulated fines submitted under this Consent Order shall be by check, payable to the State of Michigan within thirty (30) days of written demand and shall be mailed to the Michigan Department of Environment, Great Lakes, and Energy, Accounting Services Division, Cashier's Office, P.O. Box 30657, Lansing, Michigan 48909-8157. To ensure proper credit, all payments shall include the "Payment Identification Number AQD40264-S" on the front of the check and/or in the cover letter with the payment. Payment of stipulated fines shall not alter or modify in any way the Company's obligation to comply with the terms and conditions of this Consent Order.

20. EGLE, at its discretion, may seek stipulated fines or statutory fines for any violation of this Consent Order which is also a violation of any provision of applicable federal and state law, rule, regulation, permit, or EGLE administrative order. However, the AQD is precluded from seeking both a stipulated fine under this Consent Order and a statutory fine for the same violation.

21. To ensure timely payment of the settlement amount assessed in paragraph 18 and any stipulated fines assessed pursuant to paragraph 19 of this Consent Order, the Company shall pay an interest penalty to the State of Michigan each time it fails to make a complete or timely payment under this Consent Order. The interest penalty shall be determined at a rate of twelve percent (12%) per year compounded annually, using the full increment of amount due as principal, calculated from the due date specified in this Consent Order until the date that delinquent payment is finally paid in full. Payment of an interest penalty by the Company shall be made to the State of Michigan in accordance with paragraph 18 of this Consent Order. Interest payments shall be applied first towards the most overdue amount or outstanding interest penalty owed by the Company before any remaining balance is applied to subsequent payment amount or interest penalty.

22. The Company agrees not to contest the legal basis for the settlement amount assessed pursuant to paragraph 18. The Company also agrees not to contest the legal basis for any stipulated fines assessed pursuant to paragraph 19 of this Consent Order but reserves the right to dispute in a court of competent jurisdiction the factual basis upon which a demand by EGLE of stipulated fines is made. In addition, the Company agrees that said fines have not been assessed by EGLE pursuant to Section 5529 of Part 55, MCL 324.5529, and therefore are not reviewable under Section 5529 of Part 55.

23. This compliance program is not a variance subject to the 12 month limitation specified in Section 5538 of Part 55, MCL 324.5538.

24. This Consent Order shall remain in full force and effect for a period of at least three (3) years. Thereafter, this Consent Order shall terminate only upon written notice of termination issued by the AQD Director. Prior to issuance of a written notice of termination, the Company shall submit a request, to the AQD Director at the Michigan Department of Environment, Great Lakes, and Energy, Air Quality Division, P.O. Box 30260, Lansing, Michigan 48909-7760, consisting of a written certification that the Company has fully complied with all the requirements of this Consent Order and has made all payments including all stipulated fines required by this Consent Order. Specifically, this certification shall include: (i) the date of compliance with each provision of the compliance program and the date any payments or stipulated fines were paid; (ii) a statement that all required information has been reported to the AQD Cadillac District Supervisor; (iii) confirmation that all records required to be maintained pursuant to this Consent Order are being maintained at the Facility; and, (iv) such information as may be requested by the AQD Director.

25. In the event St. Marys Cement U.S., LLC sells or transfers the Facility it shall advise any purchaser or transferee of the existence of this Consent Order in connection with such sale or transfer. Within thirty (30) calendar days, the Company shall also notify the Cadillac District Supervisor, in writing, of such sale or transfer, the identity and address of any purchaser or transferee, and confirm the fact that notice of this Consent Order has been given to the purchaser and/or transferee. As a condition of the sale, St. Marys Cement U.S., LLC must obtain the consent of the purchaser and/or transferee, in writing, to assume all of the obligations of this Consent Order. A copy of that agreement shall be forwarded to the AQD Cadillac District Supervisor within thirty (30) days after assuming the obligations of this Consent Order.

26. Prior to the effective date of this Consent Order and pursuant to the requirements of Sections 5511 and 5528(3) of Part 55, MCL 324.5511 and MCL 324.5528(3), the public was notified of a 30-day public comment period and was provided the opportunity for a public hearing.

27. Section 5530 of Part 55, MCL 324.5530, may serve as a source of authority but not a limitation under which this Consent Order may be enforced. Further, Part 17 of the NREPA, MCL 324.1701 *et seq.*, and all other applicable laws and any other legal basis or applicable statute may be used to enforce this Consent Order.

28. The Company hereby stipulates that entry of this Consent Order is a result of an action by EGLE to resolve alleged violations of its facility located at 16000 Bells Bay Road, City of Charlevoix, County of Charlevoix, State of Michigan. The Company further stipulates that it will take all lawful actions necessary to fully comply with this Consent Order, even if the Company files for bankruptcy in the future. The Company will not seek discharge of the settlement amount and any stipulated fines imposed hereunder in any future bankruptcy proceedings, and the Company will take necessary steps to ensure that the settlement amount and any future stipulated fines are not discharged. The Company, during and after any future bankruptcy proceedings, will ensure that the settlement amount and any future stipulated fines remain an obligation to be paid in full by the Company to the extent allowed by applicable bankruptcy law.

The undersigned certifies that he/she is fully authorized by the Company to enter into this Consent Order and to execute and legally bind the Company to it.

ST. MARYS CEMENT U.S., LLC

JEFFREY S. OVHL UP CEMENT OPERATIONS
Print Name and Title

[Signature] Dated: 4/20/21
Signature

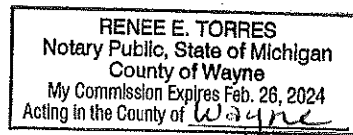
Subscribed and sworn to by the above signatory before me on this 20TH day of

April, 2021.

[Signature]
Notary Public Signature

Renee E. Torres
Notary Public Printed Name

2/26/2024
My Commission Expires



Approved as to Content:

[Signature]
Mary Ann Dolehanty, Division Director
AIR QUALITY DIVISION
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES
AND ENERGY

Dated: 5/17/2021

Approved as to Form:

[Signature]
Neil Gordon, Section Head
ENVIRONMENTAL REGULATION SECTION
ENVIRONMENT, NATURAL RESOURCES,
AND AGRICULTURE DIVISION
DEPARTMENT OF ATTORNEY GENERAL

Dated: 5/16/2021

FINAL ORDER

The Director of the Air Quality Division having had opportunity to review this Consent Order and having been delegated authority to enter into Consent Orders by the Director of the Michigan Department of Environment, Great Lakes, and Energy pursuant to the provisions of Part 55 of Act 451 and otherwise being fully advised on the premises,

HAS HEREBY ORDERED that this Consent Order is approved and shall be entered in the record of the EGLE as a Final Order.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY



Mary Ann Dolehanty, Director,
Air Quality Division

Effective Date: 5/17/2021

Submittal of Source Emission Test Plans and Reports

INTRODUCTION

The source emission test is often the ultimate determination of compliance. The results of a test are of great significance to both the regulatory agency and the source. Since the results may determine the course of future enforcement discussions between the agency and the source, it is important that the test be performed in a valid and representative manner. The complex nature of the various sampling methods places great responsibility on both agency and testing personnel to assure each test is an accurate representation of a source's actual emissions.

The objective of this document is to describe the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD) technical submittal requirements for a source test. The format described applies to the requirements of the Michigan Air Pollution Control Rules R. 336.2001 *et seq.*, federal regulations (Part 60-New Source Performance Standards, Part 61- National Emission Standards for Hazardous Air Pollutants (NESHAP), Part 63-Maximum Achievable Control Technology) and to any other emission test submitted for reasons such as a permit requirement, a consent order, consent judgment, or at the request of the AQD.

TEST PLAN SUBMITTAL

In order to establish uniform requirements and help ensure proper test methods and procedures are employed, the information specified below should be submitted to the appropriate AQD District Office and the Technical Programs Unit in Lansing, at least thirty (30) days prior to the scheduled test date. A complete submittal will minimize the possibility of a test rejection as a result of improper sampling or data collection methods. The proposed test date(s) must be included in the test plan to be considered complete.

Testing shall be performed in strict accordance with the procedures specified in Title 40 of the Code of Federal Regulations, Part 60 (Standards of Performance for New Stationary Sources, Appendix A, as amended), Part 61 (NESHAP, Appendix B), and Part 51 (Requirements for Preparation, Adoption, and Submittal of Implementation Plans, Appendix M); and the Michigan Air Pollution Control Rules, Part 10, Intermittent Testing and Sampling. Any variations in the sampling or analytical procedures must be described in the test plan and receive approval from the AQD prior to testing. If state or federal test methods are not available for the pollutants of concern, or the nature of the test site makes it impractical to use them, other methods may be proposed as necessary.

While the specific items in the test plan will vary depending on the source and pollutants of interest, the following format should be utilized:

1. Identification and a brief description of the source to be tested. The description should include:
 - a. Names, addresses, and contact information for the facility and consultant/personnel who will be performing the test. Expected test date(s);
 - b. Type of industrial process or combustion facility;
 - c. Type and quantity of raw and finished materials used in the process;
 - d. Description of any cyclical or batch operations, which would tend to produce variable emissions with time;
 - e. Basic operating parameters used to regulate the process; and

- f. Rated capacity of the process. Process capacity can be demonstrated by calculating an average and maximum production rate using facility records. Based on these figures the facility shall include a production rate to be maintained during emission testing.
2. A brief description of any air pollution control equipment associated with the process:
 - a. Type of control device;
 - b. Operating parameters;
 - c. Rated capacity and efficiency; and
 - d. Any maintenance activity on the air pollution control equipment within the last three months.
 3. Applicable Facility State Registration Number (SRN), permit number, and emission limits for the process to be tested.
 4. Identify all pollutants to be measured.
 5. Describe in detail the sampling and analysis procedures, including the applicable standard methods reference. Provide a description of the sampling train(s) to be used, including schematic diagrams if appropriate. Justify any proposed sampling or analytical modifications.
 6. The number and length of sampling runs, which will constitute a complete test.
 7. Dimensioned sketch showing all sampling ports in relation to breeching and to upstream and downstream disturbances or obstructions of gas flow.
 8. Estimated flue gas conditions such as temperature, moisture, and velocity.
 9. Projected process operating conditions during which the tests will be run (e.g., production rate). These conditions should match the operating conditions stated in the facility's permit or facility operations shall be at the maximum routine operating conditions during the test.
 10. A description of any process or control equipment data to be collected during the test period. This should include any permit required information used to demonstrate the acceptable operations of emissions control processes and production rates.
 11. A description of any monitoring data to be collected during the test period and subsequently reported (e.g., stationary continuous emission monitor data).
 12. Field quality assurance/quality control (QA/QC) procedures (e.g., field blanks, sample storage, and transport methods) and chain of custody procedures.
 13. Laboratory QA/QC procedures utilized as part of the testing (e.g., manner and frequency of blanks, spikes, and standards). This should include analysis of audit samples where required as a component of the approved test method.

If the source operates under a Renewable Operating Permit (ROP), certification by a responsible official, as defined in the Michigan Air Pollution Control Rule R 336.1118(j), using the Renewable Operating Permit Certification (ROPC) form (EQP 5736), must be included with the test plan and cover letter. This form shall certify that the testing will be conducted in

accordance with the attached test plan and that the facility will be operated in compliance with permit conditions or at the maximum routine operating conditions for the facility.

EMISSION TEST REPORTING

The emission test report should contain all pertinent data concerning the test program. In addition to reporting the results, it should include descriptions of the source, the sampling and analytical methodologies, the process operating conditions, and all raw field data, laboratory analytical data, and calculation methods. Since the report will serve as evidence to both the agency and the source as a demonstration of the compliance status of the facility, it is important it be complete in content and adequate in quality. Its contents should be presented in an understandable and organized manner. The information listed below shall be submitted to the appropriate AQD District Office and the Technical Programs Unit by the date specified in an applicable air use permit, consent order, consent judgment, or state or federal regulation. Otherwise, pursuant to Michigan Air Pollution Control Rules R 336.2001 *et seq.*, a complete test report shall be submitted to the AQD within sixty (60) days following the last date of testing. In the event that the test report is not complete, additional information will be requested for submittal. If the information is not received following two written requests to the facility, the test results may be rejected by the AQD.

While the exact format of the report and the applicable information necessary will vary depending on the source and the pollutants of interest, the following format should be utilized.

1. Introduction:
 - a. Identification, location, and dates of tests;
 - b. Purpose of testing;
 - c. Brief description of source; and
 - d. Names, addresses, and telephone numbers of the contacts for information regarding the test and the test report, and names and affiliation of all personnel involved in conducting the testing.
2. Summary of Results:
 - a. Operating data (e.g., production rate, fuel type, or composition);
 - b. Applicable Facility SRN, permit number, and Emission Unit ID or designation for the source; and
 - c. Results expressed in units consistent with the emission limitation applicable to the source, and comparison with emission regulations.
3. Source Description:
 - a. Description of process, including operation of emission control equipment;
 - b. Process flow sheet or diagram (if applicable);
 - c. Type and quantity of raw and finished materials processed during the tests;
 - d. Maximum and normal rated capacity of the process; and
 - e. A description of process instrumentation monitored during the test.
4. Sampling and Analytical Procedures:
 - a. Description of sampling train(s) and field procedures;
 - b. Description of recovery and analytical procedures;
 - c. Dimensioned sketch showing all sampling ports in relation to breeching and to upstream and downstream disturbances or obstructions of gas flow; and
 - d. A sketch of a cross-sectional view of the stack indicating traverse point locations and exact stack dimensions.

5. Test Results and Discussion:
- a. Detailed tabulation of results including process operating conditions and flue gas conditions;
 - b. Discussion of significance of results relative to operating parameters and emission regulations;
 - c. Discussion of any variations from normal sampling procedures or operating conditions, which could have affected the results;
 - d. Documentation of any process or control equipment upset condition, which occurred during the testing;
 - e. Description of any major maintenance performed on the air pollution control device(s) during the three-month period prior to testing;
 - f. In the event of a re-test, a description of any changes made to the process or air pollution control device(s) since the last test;
 - g. Results of any quality assurance audit sample analyses required by the reference method;
 - h. Calibration sheets for the dry gas meter, orifice meter, pitot tube, and any other equipment or analytical procedures, which require calibration;
 - i. Sample calculations of all the formulas used to calculate the results;
 - j. Copies of all field data sheets, cyclonic flow checks, including any pre-testing, aborted tests, and/or repeat attempts; and
 - k. Copies of all laboratory data including QA/QC (e.g. blanks, spikes, standards).

If the source operates under an ROP, certification by a responsible official, as defined in the Michigan Air Pollution Control Rule 336.1118(j), using the ROPC form (EQP 5736), must be included with the emission test results and cover letter. This form shall certify that the testing was conducted in accordance with the approved test plan and that the facility operating conditions were in compliance with permit requirements or were at the maximum routine operating conditions for the facility.

REFERENCES

¹ Michigan Air Pollution Control Rules R 336.2001 *et seq.*,

² United States Environmental Protection Agency, Plant Inspection Workshop-Techniques for Evaluating Performance of Air Pollution Control Equipment: Observing Compliance Tests, February 1981.

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