Proposed Revisions to the State of Michigan State Implementation Plan for Part 8. Emission Limitations and Prohibitions – Oxides of Nitrogen

R 336.1840 - R 336.1846

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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Table of Contents

Proposed Revisions to the State of Michigan

State Implementation Plan

1.0 Introduction

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) has prepared this revision to the Michigan State Implementation Plan (SIP) to address the federal Clean Air Act (CAA) Reasonably Available Control Technology (RACT) requirements for oxides of nitrogen (NOx) sources in nonattainment areas (NAA) under the 2015 8-hour ozone National Ambient Air Quality Standard (NAAQS). This supports the *Submittal to Revise the Michigan State Implementation Plan (SIP) for West Michigan Moderate Element Attainment Demonstration*[1] sent to the United States Environmental Protection Agency (USEPA) on October 16, 2023.

This document is required by CAA, 42 U.S.C. Chapter 85, and is intended to fulfill requirements established under CAA §182(b)(2) for the NAAQS. To address RACT control requirements, having not been previously required to establish NOx RACT, EGLE is submitting regulations that establish new rules for approval into the Michigan SIP. Attachment 6.1 denotes the previous historical amendments EGLE is requesting approval of via the 2023-13EQ rule version. Attachment 6.2 provides a comparison of Michigan's rules to other states and federal regulations, which was used to establish RACT emission limit values. Attachments 6.3 A through E contain rulemaking documentation.

Additionally, part of the proposed revisions is aimed at addressing the contingency measures provisions under CAA §172(c)(9), discussed in more detail as part of Michigan's *Submittal to Revise the Michigan State Implementation Plan (SIP) for West Michigan Moderate Element Attainment Demonstration*[1], Section 5.3 (October 16, 2023). The rules with contingency measures incorporated are R 336.1841, R 336.1842, and R 336.1844. Within these rules, more stringent limits for engines, boilers, and process heaters are required than what is considered NOx RACT. These measures become effective for sources 12 months after the effective date of a final determination by the USEPA for either of the following elements of the 2015 ozone NAAQS: 1) a determination that reasonable further progress as described in Michigan's approved SIP was not achieved, or 2) a finding of failure to attain the standard by the applicable attainment date. Michigan has received a final determination for a finding of failure to attain the standard by the applicable attainment date, which became effective January 16, 2025 (89 Federal Register 101901). Therefore, the contingency measures developed within these NOx RACT rules will become effective January 16, 2026, for the West Michigan ozone NAAs.

[1] https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Reports/AQD/state-implementation-plan/2023-10-16-west-michigan-ozone-attainment-sip-submittal-2015.pdf?rev=8933f1929aa64c48b2f7938fe18b6a4b&hash=905BBF94EDE48C8DA8B1A6E35C468587

2.0 Background and Clean Air Act Requirements

Sections 172(c)(1) and 182(b)(2) of the CAA (42 U.S.C.§7502(c)(1) and §7511a(b)(2)) require states to implement RACT for certain sources of volatile organic compounds (VOC) and NOx located in areas classified as moderate (and higher) nonattainment for ozone.

On October 1, 2015, the USEPA promulgated a revised NAAQS for ozone, referred to as the "2015 ozone NAAQS" in this document. The 2015 ozone NAAQS was revised to an 8-hour standard of 0.070 parts per million, which will be expressed as the equivalent of 70 parts per billion (ppb). On June 4, 2018 (83 *Federal Register* [FR] 25776), the USEPA made the final designations and classifications for Michigan, including designating the following three West Michigan counties as marginal nonattainment effective August 3, 2018: Berrien, the western portions of Allegan County, and the western portions of Muskegon County.

Marginal NAAs are required by the CAA to have their classification elevated one level, to moderate nonattainment, if the standard is still not met three years after an initial marginal nonattainment classification (August 3, 2021). The process of reclassification is often referred to as a "bump-up." This bump-up action for the West Michigan NAAs was finalized on October 7, 2022 (87 FR 60897). It requires EGLE to meet additional ozone requirements and moves the deadline for attainment to August 3, 2024. A moderate classification requires the state to submit SIP revisions to meet these additional requirements. This submittal addresses the NOx RACT requirements. The VOC RACT requirements were previously addressed in a separate SIP submittal in March 2024. The intent of this NOx RACT submittal is to complete the SIP-related administrative responsibility for the State of Michigan in defining NOx RACT for stationary sources with respect to the 2015 ozone NAAQS. This NOx RACT SIP revision demonstrates and certifies with respect to EGLE's stationary sources of NOx that all newly required RACT control rules for major sources have been implemented in Michigan for the 2015 ozone NAAQS moderate NAAs. EGLE submits this to the USEPA for SIP approval for applicable stationary sources of NOx emissions.

The USEPA defines RACT as the lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.[2] As part of a moderate NAA, sources in West Michigan NAAs are required to adopt RACT if they have a potential to emit equal to or greater than 100 tons per year (tpy) of NOx.

[2] 44 FR 53762, September 17, 1979.

3.0 RACT Evaluation – NOx

EGLE must meet RACT requirements by either adopting new or more stringent regulations or controls that represent RACT control levels, or by certifying that previously adopted RACT control requirements in the Michigan SIP continue to represent RACT. Michigan did not previously have rules that implemented NOx RACT requirements. Therefore, this document submits for approval into Michigan's SIP all new rules to fulfill the federal CAA requirements for the moderate NAAs in West Michigan. This section of the submittal outlines the analysis and decisions EGLE made to address RACT for NOx sources in the NAAs.

Section 3.1 outlines how EGLE determined which kind of sources were in the NAAs. Sections 3.2 through 3.5 explain the source categories EGLE developed RACT requirements for and why the limits are considered RACT. Section 3.6 covers the rule that allows for alternatives to the source category RACT rules, and Section 3.7 outlines EGLE's rule for capturing any other NOx sources above 100 tpy Potential to Emit (PTE) for which there are no applicable NOx RACT rules.

3.1 Source Category Analysis

EGLE has certified that Part 8 rules contain adequate NOx RACT controls under the 2015 ozone NAAQS. Since there are no Control Technology Guidelines for NOx sources, Michigan relied on the source analysis to determine appropriate categorical RACT determinations to establish NOx RACT rules for sources in the 2015 ozone NAAs.

EGLE conducted an initial NOx source analysis for the 2015 ozone NAAs. For this analysis EGLE relied on the multiple databases utilized for various purposes in the Air Quality Division. An initial list of sources was created using the inspection reporting database, Michigan Air Compliance and Enforcement System, since replaced by the MiEnviro platform. The most pertinent information in this data includes the facility status as major, minor, or opt-out. Since the NOx RACT rules impact sources with a NOx PTE of 100 tons or more, the threshold for major sources, this database was used to create a list of potential sources. In addition, field staff were surveyed to verify NOx sources within the NAA.

A deeper investigation was conducted using permit databases, including looking at individual source permits, such as New Source Review permits and Renewable Operating Permits.

These data were then paired with reported emissions in 2017 (the baseline inventory) from the Michigan Air Emissions Reporting System database, since replaced by the MiEnviro platform, to identify sources of NOx emissions and determine potential applicability of RACT categories. The West Michigan NAAs only have a small number of sources, and many have actual emissions below 100 tpy.

Additional insights were gathered from the *White Paper: NOx Emission Controls for Stationary Sources in the LADCO Region* (from herein referred to as the Ramboll White Paper), published by Ramboll in February 2022.[3] These were the categories for which the Ramboll White Paper showed NOx emissions in the West Michigan NAAs, and the applicable NOx RACT rules EGLE eventually developed: gas-fired external combustion sources (Rule 842), diesel-fired and gas-fired internal combustion engines (Rules 841 and 843), and process heaters (Rule 844). It's important to note that there was only one instance where the total actual NOx emissions were greater than 50 tpy in the West Michigan NAAs (according to the 2016v1 platform data utilized for this analysis). The Ramboll White Paper additionally showed 1 tpy NOx emissions coming from the Muskegon NAA from the Iron and Steel Mill category. However, since this is well below the RACT applicability threshold, EGLE did not create a NOx RACT rule for this source category.

Through this entire source analysis EGLE identified approximately 15 sources in the West Michigan NAAs that may be subject to NOx RACT, but of those sources it is anticipated some will be under the 100 tpy PTE applicability threshold.

3.2 Engines (R 336.1841)

EGLE promulgated requirements under Rule 841 for compression ignition and spark ignition engines greater than 500 horsepower (HP) that limit burning natural gas and gaseous fuels other than natural gas. The limit for these engines is 3.0 grams per brake horsepower hour (grams/bhp-hr), with the exception of 4 stroke natural gas-fired spark ignition engines greater than 1,000 HP, which have a limit of 1.5 grams/bhp-hr. These limits are consistent with what other states in the region have implemented for NOx RACT. Wisconsin's current SIP-approved NOx limit for Internal Compression Ignition (ICI) engines is 3.0 grams/bhp-hr for engines greater than 500 HP; Ohio's current SIP approved NOx limit for ICI engines is 3.0 grams/bhp-hr for engines greater than 2,000 HP, and they have recently promulgated revised state rules for engines greater than 500 HP.

EGLE analysis supports the applicability thresholds and emission limits as promulgated to be representative of RACT for this source category, and that they are achievable through combustion controls which could include, but are not limited to, air-to-fuel ratio adjustments, ignition retard, and low-emission combustion. This is further supported by the Ramboll White Paper.[3]

3.3 Boilers (R 336.1842)

The requirements EGLE promulgated under Rule 842 are for boilers greater than 50 MMBtu/hr. The limits are 0.10 lb/MMBtu for gaseous fuels, 0.12 lb/MMBtu for distillate oil, and 0.25 lb/MMBtu for residual oil. For boilers burning solid fuels the limits are 0.35 lb/MMBtu for boilers greater than 50 MMBtu and less than 100 MMBtu, and

[3] https://www.ladco.org/wp-content/uploads/Projects/Emissions-Controls/Ramboll-Stationary-NOx-2021/Final_LADCO_WhitePaper_25Feb2022.pdf

0.25 lb/MMBtu for boilers of 100 MMBtu and greater. Additionally, boilers are required to conduct a tune-up to proper operating conditions. Boilers subject to the tune-up requirements of Title 40 of the Code of Federal Regulations (CFR), Part 63 subparts DDDDD, UUUUU, or JJJJJJ must comply with the manner and frequency prescribed under those federal standards. All other boilers must comply with the following tune-up schedules, as applicable: every 5 years but no more than 61 months after the last tune-up for boilers that are natural gas-fired or equipped with an oxygen analyzer system, and once every year but no longer than 13 months after the last tune-up for all other fuels.

Ohio's current NOx RACT rules apply to boilers greater than 20 MMBtu/hr and have similar limits to EGLE's NOx RACT boiler limits. Wisconsin's current rules apply to boilers greater than 100 MMBtu/hr with slightly lower limits than EGLE's. However, since EGLE has a lower threshold, Michigan is capturing smaller sources than Wisconsin.

Additionally, 40 CFR Part 60 Subpart Db sets NO_2 emission limits starting at 0.10 lb/MMBtu for natural gas and distillate oil, and 0.30 lb/MMBtu for residual oil, for steam-generating units with a heat capacity over 100 MMBtu/hr. This is less restrictive than the requirements EGLE has promulgated.

EGLE analysis supports the applicability thresholds and emission limits as promulgated to be representative of RACT for this source category, and that they are achievable through combustion controls, which could include, but are not limited to, low-NOx burners, natural gas reburn, flue gas recirculation, and Selective Catalytic Reduction (SCR). This is further supported by the Ramboll White Paper.[3]

3.4 Combustion Turbines (R 336.1843)

Requirements promulgated under R 336.1843 are for combustion turbines greater than 30 MMBtu/hr for gaseous and liquid fuels. The NOx emission limits for combustion turbines greater than 30 MMBtu/hr but less than 50 MMBtu/hr are 150 parts per million (ppm) for gaseous fuels and 200 ppm for liquid fuel. For combustion turbines 50 MMBtu/hr and greater the limits are 25 ppm for gaseous fuel and 65 ppm for liquid fuel. Ohio currently does not appear to have NOx RACT rules for this source category, and Wisconsin's rules are difficult to compare due to the various classifications by which they have broken down their limits. However, they range from 9 to 96 ppmv. The respective USEPA's Alternative Control Techniques (ACT) document for this source category recommends a range of feasible NOx emissions limits between 25 and 42 ppmv using SCR controls. Figure 2-8 in the ACT document shows that the cost per ton removed for water injection, steam injection, and dry low NOx controls is highest for the smallest turbines and decreases exponentially with decreasing turbine size. The USEPA ACT's Figure 2-8 measured combustion turbines by megawatt (MW) while EGLE's rules use MMBtu/hr. The higher limits EGLE set for combustion turbines greater than 30 MMBtu/hr and less than 50 MMBtu/hr would apply to approximately the 9 to 14 MW range. Within that range in the ACT's Figure 2-8, the cost per ton NOx removed is much higher than combustion turbines with higher MW capacities. EGLE believes the

limits set for turbines in the 30 to 50 MMBtu/hr range are considered RACT and allow for a variety of control applications to be utilized.

EGLE analysis supports the applicability thresholds and emission limits as promulgated are representative of RACT for this source category, and that they are achievable through combustion controls which could include, but are not limited to, water injection, steam injection, and dry low NOx burners.

3.5 Miscellaneous Process-Specific Combustion Sources (R 336.1844)

Rule 844 covers the following source categories: asphalt plants, process heaters, engine test cells and stands, lime kilns, and glass manufacturing.

Ohio's current NOx RACT rules do not contain regulations for these source categories.

Wisconsin's current rules contain regulations based on maximum heat capacity for asphalt plants greater than 65 MMBtu/hr, process heaters greater than 65 or 100 MMBtu/hr based on fuel type, lime kilns greater than 50 MMBtu/hr, and glass furnaces greater than 50 MMBtu/hr.

EGLE's emission limits for asphalt plants are consistent with that of Wisconsin's current regulations. However, EGLE is regulating down to 50 MMBtu/hr plants, whereas Wisconsin is regulating only down to 65 MMBtu/hr plants. EGLE and Wisconsin's process heater NOx emission limits are not directly comparable due to differences in how they are classified. Nevertheless, they are relatively within the same ranges for similar fuel types and sizes.

EGLE additionally created emissions limits for engine test cells and stands greater than 1,200 HP at 0.08 lb/MMBtu for gaseous fuel and 0.10 lb/MMBtu for distillate oil. No other Region 5 states have NOx RACT rules for this source category, and the USEPA does not have an ACT for this source category either. During the source analysis described in Section 3.1, EGLE initially reviewed all NAAs which included the southeast Michigan area previously designated nonattainment but now a maintenance area and noticed a few sources with actual emissions above 20 tpy of NOx emissions from this source category. There is at least one facility that has engine test cells within the current West Michigan NAAs, and therefore EGLE still promulgated this rule even after southeast Michigan redesignated to attainment. EGLE worked with automotive representatives during the stakeholder process to understand the diversity of engine test cells for engine testing. Limits and thresholds were established to set a reasonable base to capture larger processes that may be contributing to impactful amounts of NOx emissions while making sure to not inhibit a company's need to test engines for safety.

EGLE's lime kiln regulation was based on conversations with Carmeuse Lime, Inc. and developed to align with the current Ohio NOx RACT limit under 3745-110-03(S), which is directly applicable to Carmeuse Lime, Inc. and appears to be reasonable.

Lastly, EGLE's glass manufacturing requirements are for facilities with a maximum heat capacity greater than 50 MMBtu/hr, with a limit of 3.5 lbs of NOx per ton of glass produced. The Good Neighbor Plan, although currently stayed, set a limit of 4 lbs NOx per ton or greater depending on the type of glass, supporting EGLE setting the 3.5 lbs of NOx per ton of glass produced as representative of RACT for this source category.

EGLE analysis supports the applicability thresholds and emission limits as promulgated are representative of RACT for these source categories, and that they are achievable through combustion controls, which could include, but are not limited to, low NOx burners, excess oxygen controls, and SCR.

3.6 Alternative RACT (R 336.1845)

EGLE acknowledges the specificity and individuality of industries and the possible need for utilizing alternatives to the EGLE NOx RACT rules, while still protecting public health by maintaining requirements for large NOx emitters in the NAAs. Rule 845 allows facilities to request approval from the department for equivalent or alternate requirements to those established in Rules 841 through 844. Upon submission of a RACT plan outlining the initial request, facilities must provide a RACT analysis that provides quantitative and qualitative evidence demonstrating that the emissions from this request will not interfere with the NAAs' ability to achieve the ozone NAAQS. Included will be a description of actions being taken to reduce emissions while pursing the equivalent or alternative, if it extends beyond the required compliance dates. Upon department issuance of a permit or legally enforceable order, the applicable portion will be submitted to the USEPA for approval as a revision to the SIP.

3.7 Source-Specific RACT Determinations (R 336.1846)

EGLE adopted requirements under R 336.1846 for facilities in the NAAs with combined emissions greater than 100 tpy of NOx emissions for all units at a facility, which are not applicable to the RACT requirements outlined within R 336.1840 – R 336.1845. Under this rule, applicable facilities must submit initial information, including identification of each stationary source and emission units applicable to the rule. Also required are determinations of their potential to emit, potential NOx emissions, and the actual emissions of NOx for the most recent calendar year for each emission unit using emission testing or a calculation approvable by the department. Within one year after the effective date of the rule, facilities must submit a RACT proposal which includes a RACT analysis, a schedule for completing implementation of the RACT proposal, testing, monitoring, recordkeeping, and reporting, along with other information (R 336.1846(5)). EGLE will then approve, deny, or modify each RACT proposal and, upon approval, the facility must implement the RACT proposal as expeditiously as possible. EGLE will submit the order or Permit to Install with its corresponding RACT program to the USEPA for approval as a revision to the SIP.

EGLE utilized a 5 tpy NOx emissions exemption threshold for emission units up to a combined total of 25 tpy at a facility, because sources this small would likely result in de minimis reductions, if any. Additionally, when considering the potential costs

associated with controlling processes this small, which may result in very small emission reductions, it is unlikely they will be considered RACT.

4.0 Public Participation

EGLE established a stakeholder workgroup early in the rule writing process. A formal invitation letter to potential stakeholders for several ozone-related workgroups was shared via electronic mailing lists on October 2, 2019. The RACT workgroup convened for their first in-person meeting on December 14, 2019. Michigan continued hosting in-person and virtual meetings (as needed) and used electronic forms of communication to provide updates and receive informal comments between meetings throughout the rulemaking process. During this time the stakeholder members consisted of representatives from environmental advocacy groups, industry, consulting firms, and trade associations.

As part of the formal rulemaking process in Michigan, rules are required to be reviewed by additional governmental groups as well as an Environmental Rules Review Committee which was disbanded during this particular rule package.

EGLE published notification for the formal public comment period and public hearing concerning the draft Part 8 rules, which housed the NOx RACT rules for existing sources, on EGLE's Public Calendar for the duration of the public comment period (April 22 through May 22, 2024). The comment period and public hearing were also announced on the Michigan EGLE AQD SIP and Attainment webpage, and the stakeholder workgroup was notified via electronic mailing.

A public hearing was held on the day the public comment period closed: May 22, 2024. Attachment 6.3 of this submittal includes additional information and documentation regarding the public participation process for Michigan Air Pollution Control Rules – Part 8.

5.0 Title 40 of the Code of Federal Regulations, Part 51, Appendix V Requirements

Several administrative materials are required as described in Title 40 of the Code of Federal Regulations (CFR) 51 Appendix V. While some are addressed at various locations throughout this document, the following items are addressed here:

5.1 Administrative Materials

A. Formal Request

Appendix V requires *"all SIP submittals contain a formal letter of submittal from the Governor or the Governor's designee requesting the USEPA approval of the SIP revision."*

A cover letter dated May 5, 2025, from Phillip D. Roos, Director, EGLE, to Anne M. Vogel, Regional Administrator, USEPA, Region 5, requesting approval of SIP revisions.

A letter dated July 3, 2019, from Governor Gretchen Whitmer to the USEPA, Region 5, delegating authority to EGLE's Director to make any submittal, request, or application under the federal CAA. The letter is available upon request.

B. Adoption in State Regulation

Appendix V requires the state to submit evidence that they have adopted the revisions in their rules or laws or other official documents. Subparagraph 2.1(b) requires *"Evidence that the State has adopted the plan in the State code or body of regulations; or issued the permit, order, consent agreement (hereafter "document") in final form. That evidence should include the date of adoption or final issuance as well as the effective date of the plan if different from the adoption/issuance date*."

The Michigan Department of Licensing and Regulatory Affairs (LARA) maintains Michigan's official rule records, including filing and effective dates. The following link is to the official 2023-013EQ rule package LARA webpage and provides the filing and effective date; additionally, a copy of this webpage is included in Attachment 6.3 – Section A:

https://ars.apps.lara.state.mi.us/Transaction/RFRTransaction?TransactionID=1440

C. Necessary Legal Authority

Appendix V requires the state to have the necessary legal authority to enforce the requested SIP revision. Subparagraph 2.1(c) requires *"Evidence that the State has the necessary legal authority under State law to adopt and implement the plan."*

Section 5512 of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, gives the agency the authority to promulgate the revised rules. A copy is available upon request or at the website listed below.

http://legislature.mi.gov/doc.aspx?mcl-324-5512

D. Copy of the Rule or Regulation

Appendix V requires the state to submit a copy of the regulation or document submitted for approval and incorporation by reference into the SIP, including indication of the changes made to the existing approved SIP. Subparagraph 2.1(d) requires, in part, "*A copy of the actual regulation or document submitted for*

approval and incorporation by reference into the plan, including indication of the changes made (such as redline/strikethrough) to the existing approved plan, where applicable. The submission shall include a copy of the official State regulation/document signed, stamped, and dated by the appropriate State official indicating that it is fully enforceable by the State. The effective date of the regulation/document contained in the submission shall, whenever possible, be indicated in the regulation/document itself…"

The Michigan Department of Licensing and Regulatory Affairs (LARA) maintains Michigan's official rule records, including filing and effective dates. The following link is to the official 2023-013EQ rule package LARA webpage and provides the filing and effective date; additionally, a copy of this webpage is included in Attachment 6.3 – Section A:

https://ars.apps.lara.state.mi.us/Transaction/RFRTransaction?TransactionID=1440

The final form of the adopted rules in Part 8, with the effective date of April 28, 2025, is included in Attachment 6.3 – Section B. Specific requests for SIP approval of these are denoted in Attachment 6.1.

The ~~strike~~/**bold** version of the rules is included in Attachment 6.3 – Section C.

Michigan administrative rules are enforceable as law effective immediately upon filing with the Michigan Department of State, Office of Great Seal, Notice of Filing Administrative Rules. These rules were effective for Part 8, dated April 28, 2025, and are included in Attachment 6.3 – Section A.

E. Requirement to Follow State Laws

Appendix V requires the state to submit evidence that the state followed all their own procedures when creating and adopting the plan. Subparagraph 2.1(e) requires *"Evidence that the State followed all of the procedural requirements of the State's laws and constitution in conducting and completing the adoption / issuance of the plan*."

Before being finalized, two intermediate steps are required to promulgate a rule:

First, the Certificate of Adoption from Michigan's Legislative Service Bureau is signed and available upon request. This document certifies the proposed rules as to form, classification, and arrangement. Also, a copy of the Certificate of Adoption, dated November 21, 2024, signed by EGLE Director Phillip D. Roos, is available upon request.

Second, the Legal Certification of Rules from the Michigan Department of Licensing and Regulatory Affairs is available upon request and certifies legality by determining they are "within the scope of the authority of the agency, do not violate constitutional rights, and are in conformity with the requirements of the Administrative Procedures Act."

The final step contingent upon completion of the aforementioned steps, the Notice of Filing of Administrative Rules from the Michigan Department of State, Office of Great Seal, is completed and a copy of the 2023-13EQ are supplied in Attachment 6.3 – Section A.

F. Sufficient Public Notice

Appendix V requires the state to submit evidence that public notice was properly conducted. Subparagraph 2.1(f) requires *"Evidence that public notice was given of the proposed change consistent with procedures approved by EPA, including the date of publication of such notice*."

Public notice for the rules addressed in this submittal was given as part of the promulgation process, along with notification that the new rules and revisions would be submitted for SIP approval. The public notice addressing revision of the SIP in the 2023-13EQ rule package was published in Michigan's Environmental Calendar located at https://www.michigan.gov/egle/outreach/calendar, from April 22, 2024, through May 22, 2024, a copy of which is in Attachment 6.3 – Section D. Additionally, the comment period and public hearing were also announced on the Michigan EGLE AQD SIP and Attainment webpage, a copy of which is provided in Attachment 6.3 – Section D.

G. Valid Public Hearing

Appendix V requires the state to submit a certification that a public hearing, if held, followed all applicable requirements and protocols. Subparagraph 2.1(g) requires, *"Certification that public hearings were held in accordance with the information provided in the public notice and the State's laws and constitution, if applicable and consistent with the public hearing requirements in 40 CFR 51.102."*

The public hearing was held on May 22, 2024, in accordance with the information provided in the public notice, the Michigan Administrative Procedures Act, and 40 CFR §51.102. As previously described in the public notice requirement, the hearing announcement was published in Michigan's Environmental Calendar located at https://www.michigan.gov/egle/outreach/calendar a copy is provided in Attachment 6.3 – Section D. Also, a copy of the 2023-13EQ Agency Report to the Joint Committee on Administrative Rules (JCAR Report), submitted on November 1, 2024, details that compliance and is included as Attachment 6.3 – Section E. Additional supplementary and supportive evidence, such as transcripts and newspaper affidavits, are some of the publicly available materials created at the time of the comment and hearing period and is available upon request.

H. Public Comments and Responses

Appendix V requires the state to submit a compilation of public comments and the state's responses to those comments. Subparagraph 2.1(h) requires "*Compilation of public comments and the State's response thereto*."

For several of the rule packages, comments were received regarding approval of these rules. As described above, Attachment 6.3 – Section E contains the JCAR Reports that

provide a summary of public comments received and responses to comments where rule revisions were made for each of the rule packages.

5.2 Technical Support

A. Affected Regulated Pollutants

Appendix V, subparagraph 2.2(a) requires states to submit "*Identification of all regulated pollutants affected by the plan."*

The Part 8 rules being requested for inclusion in Michigan's SIP affect NOx for the 2015 ozone NAAQS.

B. Affected Sources

Appendix V, subparagraph 2.2(b) requires *"Identification of the locations of affected sources including the EPA attainment/nonattainment designation of the locations and the status of the attainment plan for the affected areas."*

The Part 8 rules included in this request affect existing and new sources in the moderate NAAs for the 2015 ozone NAAQS. These areas include Berrien County and the western portions of Allegan and Muskegon Counties.

C. Quantification of Emission Changes

Appendix V requires the state to submit information regarding changes in emissions that might occur from the acceptance of these rules into the SIP. Subparagraph 2.2(c) requires *"Quantification of the changes in plan allowable emissions from the affected sources; estimates of changes in current actual emissions from affected sources or, where appropriate, quantification of changes in actual emissions from affected sources through calculations of the differences between certain baseline levels and allowable emissions anticipated as a result of the revision."*

Additions to Part 8 rules vary in their impact. The development of these new rules was to set limits for NOx RACT on sources in Michigan's 2015 ozone NAAs. A description of the analysis and summary of rule additions are outlined in Section 3 of this document and Attachment 6.2. Attachment 6.2 contains a more detailed analysis of EGLE's rules, compared to the USEPA ACT documents and requirements found in the USEPA Region 5 states. The amount of expected emission reductions varies by rule and is dependent upon the amount of expected applicable sources in the NAAs. Based on EGLE's review of potential impacted sources, it is believed there would be less than 20 sources in the West Michigan NAAs that may be impacted by these rules. The extent of the emission reductions was not calculated, but the total NOx emissions from the potential impacted sources for the base year, 2017, was 1,303 tpy. The implementation of these rules is not believed to increase NOx emissions, rather they will reduce NOx emissions.

D. Continued Protection of Federal Standards

Appendix V requires the state to demonstrate that several federal programs are protected if the plan is approved and implemented. Subparagraph 2.2(d) requires *"The State's demonstration that the national ambient air quality standards, prevention of significant deterioration increments, reasonable further progress demonstration, and visibility, as applicable, are protected if the plan is approved and implemented. For all requests to redesignate an area to attainment for a national primary ambient air quality standard, under section 107 of the Act, a revision must be submitted to provide for the maintenance of the national primary ambient air quality standards for at least 10 years as required by section 175A of the Act."*

For the rule additions, the analysis provided in Section 3 of this document and Attachment 6.2 of this submittal explains why EGLE expects these to satisfy the requirements under the 2015 ozone NAAQS and assists in Michigan's goal to comply with the NAAQS. In addition, since these are all new rules, there cannot be any backsliding from any previously established NOx RACT limits. The information provided in this submittal further demonstrates that these rule changes will not result in backsliding.

E. Modeling Information

Appendix V requires the state to provide modeling analysis to support the proposed revision. Subparagraph 2.2(e) requires *"Modeling information required to support the proposed revision, including input data, output data, models used, justification of model selections, ambient monitoring data used, meteorological data used, justification for use of offsite data (where used), modes of models used, assumptions, and other information relevant to the determination of adequacy of the modeling analysis."*

A modeling demonstration is not applicable for the additions requested in this submittal. However, modeling was completed for the previous related SIP for West Michigan Moderate Element Attainment Demonstration.[1]

F. Continuous Emission Reduction Technology

Appendix V, subparagraph 2.2(f) requires the state to submit *"Evidence, where necessary, that emission limitations are based on continuous emission reduction technology."*

No evidence that emission limitations are based on continuous emission reduction technology is necessary for this submittal.

G. Ensuring Emissions Levels

Appendix V requires the state to provide evidence that the submittal has sufficient requirements to enforce allowed emission levels. Subparagraph 2.2(g) requires *"Evidence that the plan contains emission limitations, work practice standards and recordkeeping/reporting requirements, where necessary, to ensure emission levels."*

For all of the new rules developed for NOx RACT in this submittal EGLE incorporated appropriate emission limitations, work practice standards, and recordkeeping/reporting requirements to ensure proper compliance with emission levels.

H. Compliance and Enforcement Strategies

Appendix V, subparagraph 2.2(h) requires *"Compliance/enforcement strategies, including how compliance will be determined in practice."*

EGLE's Air Quality Division compliance staff will investigate facilities on a regular basis to determine if facilities are meeting the requirements of these changes.

I. Required Economic and Technical Justifications

Appendix V, subparagraph 2.2(i) requires *"Special economic and technological justifications required by any applicable EPA policies, or an explanation of why such justifications are not necessary."*

This submittal utilizes the economic and technical justifications put forth by the USEPA within ACT documents to establish RACT-level controls for specific source categories. Further, EGLE reviewed other Region 5 states' equivalent NOx RACT requirements, worked with stakeholders, and reviewed relevant studies on NOx emissions during the rulemaking process to further develop RACT-level controls and emission limits in EGLE's Part 8 rules regulating NOx RACT sources in the 2015 ozone NAAs. See Attachment 6.2 for a comparison of USEPA ACT recommendations, EGLE's requirements, and other Region 5 state requirements.

5.3 Exceptions for Parallel Processing

Appendix V, subsection 2.3, for the purpose of expediting review of the plan, contains a procedure referred to as "parallel processing." Parallel processing allows a state to submit the plan prior to actual adoption by the state and provides an opportunity for the state to consider the USEPA's comments prior to submission of a final plan for final review and action. Further information is available as described in Appendix V; however, the parallel processing procedure is not being utilized for this submittal, and therefore, no additional discussion is necessary.

Exceptions are granted in cases when the state requests parallel processing. The parallel processing procedure is not being utilized at this time.

5.4 Clean Air Act Section 110(l) Requirements

The CAA Section 110(l) governs the submittal of SIP revisions. This section contains EGLE's Section 110(l) demonstration for the requested SIP revisions in this document. Section 110(l) states: "*Each revision to an implementation plan submitted by a State under this chapter shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further*

progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter."

The Part 8 rules that EGLE is submitting for approval into the SIP are new rules to implement NOx RACT for NOx sources in the ozone NAAs and demonstrate compliance with the NOx RACT requirements under the 2015 ozone NAAQS. These rule changes are expected to reduce NOx emissions in the ozone NAAs, and additional information on the limits and thresholds can be found within Section 3 of this document and Attachment 6.2 of this submittal. Therefore, the additions to the Part 8 rules will not interfere with any applicable requirement concerning attainment, reasonable further progress, or any other applicable requirement under the CAA and instead serve to support those requirements.

6.0 Attachments

Historic Amendments and Request for Approval into the Michigan SIP

Review and Comparison of Michigan's NOx RACT Requirements

Section A 2023-013EQ rule package LARA webpage

Section B 2023-13EQ Final Rule

Section C 2023-13EQ Final Rule ~~Strike~~/**Bold** Version

Section D EGLE Calendar and AQD Website Public Comment and Hearing Notices (2023-13EQ)

Section E 2023-13EQ JCAR Report

Attachment 6.3

Title 40 CFR, Part 51, Appendix V Reference Material

Section A

Michigan Department of State, Office of Great Seal's Notice of Filing Administrative Rules for Part 8 (2023-13EQ)

ARS - Administrative Rulemaking System

Request For Rulemaking

Rule set #:

2023-13 EQ

Department:
Environment, Great Lakes and Energy

Bureau:
Air Quality Division

Title of rule set:
Part 8. Emission Limitations and Prohibitions-Oxides of Nitrogen

Rule number(s) or rule set range of numbers:
R 336.1801 - R 336.1846

Filing date:
4/28/2025

Effective date:
4/28/2025

Click on the link(s) below to download

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Regulatory Impact Statement Approved on: 3/7/2024 9:12:40 AM

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Notice of Public Hearing Approved on: 3/26/2024 10:22:05 AM

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Section B

Final Part 8 (2023-013EQ)
Rule Language

DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

AIR QUALITY DIVISION

AIR POLLUTION CONTROL

Filed with the secretary of state on April 28, 2025

These rules become effective immediately after filing with the secretary of state unless adopted under section 33, 44, or 45a(9) of the administrative procedures act of 1969, 1969 PA 306, MCL 24.233, 24.244, or 24.245a. Rules adopted under these sections become effective 7 days after filing with the secretary of state.

(By authority conferred on the director of the department of environment, Great Lakes, and energy by sections 5503 and 5512 of the natural resources and environmental protection act, 1994 PA 451, MCL 324.5503 and 324.5512, and Executive Reorganization Order Nos. 1995-16, 2009-31, 2011-1, and 2019-1, MCL 324.99903, 324.99919, 324.99921, and 324.99923)

R 336.1801, R 336.1802, R 336.1803, R 336.1810, and R 336.1818 of the Michigan Administrative Code are amended, and R 336.1840, R 336.1841, R 336.1842, R 336.1843, R 336.1844, R 336.1845, and R 336.1846 are added, as follows:

PART 8. EMISSION LIMITATIONS AND PROHIBITIONS - OXIDES OF NITROGEN

R 336.1801 Emission of oxides of nitrogen (NOx) from non-SIP call stationary sources.

Rule 801. (1) As used in this rule:

(a) “Btu” means a British thermal unit.

(b) "Capacity factor" means either of the following:

(i) The ratio of a unit's actual annual electric output, expressed in megawatt hour, to the unit's nameplate capacity times 8,760 hours.

(ii) The ratio of a unit's annual heat input, expressed in million Btu or equivalent units of measure, to the unit's maximum design heat input, expressed in million Btus per hour or equivalent units of measure, times 8,760 hours.

(c) “Electricity-generating utility unit” means a unit that produces electricity for sale.

(d) "Fossil fuel-fired" means the actual combustion of fossil fuel, which includes coke oven gas, alone or in combination with another fuel, where either of the following quantities are greater than 50% on an annual basis:

(i) Sum of the mass of fossil fuels combusted divided by the total mass of all fuels combusted.

(ii) Sum of the annual heat inputs for fossil fuels combusted divided by the total heat input for all fuels combusted. Annual heat inputs are on a Btu basis.

(e) "Low-NOx burners" means 1 of several developing combustion technologies used to minimize the formation of emissions of nitrogen oxides. As applicable to cement kilns,

low-NOx burners means a type of cement kiln burner system designed to minimize NOx formation by controlling flame turbulence, delaying fuel/air mixing, and establishing fuel-rich zones for initial combusting, that for firing of solid fuel in the burning end zone of a kiln's main burner includes an indirect firing system or comparable technique for the main burner in the burning end zone of the kiln to minimize the amount of primary air supplied through the burner. In an indirect firing system, 1 air stream is used to convey pulverized fuel from the grinding equipment and at least 1 or more other air streams are used to supply primary air to the burning end zone kiln burner of the kiln with the pulverized fuel, with intermediate storage of the fuel, and necessary safety and explosion prevention systems associated with the intermediate storage of fuel.

(f) "Mid-kiln system firing" means the secondary firing in a kiln system by injecting solid fuel at an intermediate point in the kiln system using a specially designed heat injection mechanism for the purpose of decreasing NOx emissions through coal burning part of the fuel at lower temperatures and reducing conditions at the fuel injection point that may destroy some of the NOx.

(g) "Non-SIP call source" means any stationary source of NOx emissions that is not a NOx budget source subject to R 336.1802.

(h) “NOx” means oxides of nitrogen.

(i) "Ozone control period" means the period of May 1 through September 30.

(j) "Peaking unit" means an electricity-generating utility unit that has an average capacity factor of not more than 10% during the previous 3 calendar years and a capacity factor of not more than 20% in each of those calendar years.

(k) "Process heater" means any combustion equipment which is fired by a liquid fuel or a gaseous fuel, or both, and which is used to transfer heat from the combustion gases to a process fluid, superheated steam, or water.

(l) “SIP” means state implementation plan.

(m) "Unit" means a fossil fuel-fired combustion device.

(2) Except as provided in subrule (11) of this rule, any fossil fuel-fired unit that meets both of the following requirements is subject to this rule:

(a) A unit that has the potential to emit more than 25 tons of NOx each ozone control period.

(b) A unit that has a maximum rated heat input capacity of more than 250 million Btu, per hour.

(3) An owner or operator of an emission unit subject to this rule shall comply with the following provisions, as applicable:

(a) An owner or operator of a fossil fuel-fired, electricity-generating utility unit that serves a generator that has a nameplate capacity of less than 25 megawatts shall comply with the appropriate NOx emission limit in table 81 of this rule.

(b) An owner or operator of a fossil fuel-fired boiler or process heater shall meet the emission limits contained in table 81 of this rule.

(c) An owner or operator of a gas-fired boiler or process heater that fires gaseous fuel that contains more than 50% hydrogen by volume shall comply with an NOx emission limit of 0.25 pounds per million Btu heat input.

(d) An owner or operator of a stationary internal combustion engine that is subject to the provisions of this rule and has a maximum rated heat input capacity that is the heat

input at 80 degrees Fahrenheit at sea level and takes into account inlet and exhaust losses shall comply with the following NOx emission limits, as applicable:

(i) For a natural gas-fired stationary internal combustion engine - 14 grams of NOx per brake horsepower hour at rated output.

(ii) For a diesel-fired stationary internal combustion engine - 10 grams of NOx per brake horsepower hour at rated output.

(e) An owner or operator of a cement kiln that is subject to the provisions of this rule shall reduce kiln NOx emissions by any of the following methods:

(i) Low-NOx burners.

(ii) Mid-kiln system firing.

(iii) A 25% rate-based reduction of NOx from 1995 levels. Compliance with this paragraph is based on calculations showing that the emission rate, on a pounds of NOx per ton of clinker produced basis, during each compliance ozone control period, has been reduced below the 1995 ozone control period emission rate by 25%.

(f) An owner or operator of a stationary gas turbine that is subject to the provisions of this rule and which has a maximum rated heat input capacity that is the heat input at 80 degrees Fahrenheit at sea level and takes into account inlet and exhaust losses shall comply with an emission limit of 75 parts per million, dry volume, corrected to 15% oxygen, at rated capacity.

(4) The method for determining compliance with the emission limits in subrule (3) of this rule is as follows:

(a) If the emission limit is in the form of pounds of NOx per million Btu, then the unit is in compliance if the sum of the mass emissions from the unit that occurred during the ozone control period, divided by the sum of the heat input from the unit that occurred during the ozone control period, is less than or equal to the limit in subrule (3) of this rule.

(b) For an emission unit not subject to subdivision (a) of this subrule, the method for determining compliance must be a method acceptable to the department.

(5) The owner or operator of a boiler, process heater, stationary internal combustion engine, stationary gas turbine, cement kiln, or another stationary emission unit that is subject to the provisions of subrule (3) of this rule shall measure NOx emissions by any of the following:

(a) Performance tests described in subrule (6) of this rule.

(b) Through the use of a continuous emission monitor in accordance with the provisions of subrule (8) of this rule.

(c) According to a schedule and using a method acceptable to the department.

(6) An owner or operator of an emission unit that measures NOx emissions by performance tests as specified in subrule (5) of this rule shall do all of the following:

(a) Conduct an initial performance test not later than 90 days after the compliance deadline. For an emission unit that is not in service after the compliance deadline, the owner or operator shall contact the department and schedule an alternate initial performance test as agreed to by the department.

(b) After the initial performance test, conduct a compliance performance test each ozone control period or according to the following schedule:

(i) After 2 consecutive ozone control periods in which the emission unit demonstrates compliance, an owner or operator shall conduct performance tests at least once every 2 years during the ozone control period.

(ii) After a total of 4 consecutive ozone control periods in which the emission unit has remained in compliance, an owner or operator shall conduct performance tests at least once every 5 years during the ozone control period.

(c) If an emission unit is not in compliance at the end of an ozone control period, then the owner or operator shall conduct a compliance performance test each ozone control period, but may elect to use the alternative schedule specified in subdivision (b) of this subrule.

(d) An owner or operator shall submit 2 copies of each compliance performance test to the department within 60 days after completing the testing. The test results must be presented and include data as requested in the department format for submittal of source emission test plans and reports. All performance test reports must be kept on file at the plant and made available to the department on request.

(7) An owner or operator of an emission unit that is required to conduct performance testing under subrule (5) of this rule shall submit a test plan to the department, not less than 30 days before the scheduled test date. To ensure proper testing, the plan must supply the information in the department format for submittal of source emission test plans and reports. The owner or operator shall give the department a reasonable opportunity to witness the tests.

(8) An owner or operator of an emission unit that measures NOx emissions by a continuous emission monitoring system or an alternate method, as specified in subrule (5) of this rule, shall do either of the following:

(a) Use the procedures set forth in 40 CFR part 60, subpart A and appendix B, adopted by reference in R 336.1902 and comply with the quality assurance procedures in part 60, appendix F, adopted by reference in R 336.1902 or 40 CFR part 75, adopted by reference in R 336.1902 and associated appendices, as applicable and acceptable to the department.

(b) Use a previously installed continuous emission monitoring system to demonstrate compliance with this rule as long as the previously installed continuous emission monitoring system monitors NOx pursuant to other applicable federal, state, or local rules, meets the installation, testing, operation, calibration, and reporting requirements specified by those federal, state, or local rules, and is acceptable to the department.

(9) The owner or operator of an emission unit that is subject to this rule shall submit a summary report, in an acceptable format, to the department within 60 days after the end of each ozone control period. The report must include all of the following information:

(a) The date, time, magnitude of emissions, and emission rates where applicable, of the specified emission unit.

(b) If emissions or emission rates exceed the emissions or rates allowed for in the ozone control period by the applicable emission limit, the cause, if known, and any corrective action taken.

(c) The total operating time of the emission unit during the ozone control period.

(d) For continuous emission monitoring systems, system performance information must include the date and time of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or

adjustments. When the continuous monitoring system has not been inoperative, repaired, or adjusted, the information must be stated in the report.

(10) Table 81 reads as follows:

TABLE 81

Boilers and process heaters with heat input capacity of 250 million Btu or more NO_x emission limitations (pounds NO_x per million Btu of heat input averaged over the ozone control period)	
Fuel type	Emission limit
Natural gas	0.20
Distillate oil	0.30
Residual oil	0.40
Coal (1) Coal spreader stoker (2) Pulverized coal fired	 0.40 0.40
Gas (other than natural gas)[1]	0.25
For units operating with a combination of gas, oil, or coal, a variable emission limit calculated as the heat input weighted average of the applicable emission limits must be used. The emission limit is determined as follows: Emission limit = a(0.20) + b(applicable oil limit) + c(applicable coal limit) + d(0.25) Where: a = Is the percentage of total heat input from natural gas b = Is the percentage of total heat input from oil c = Is the percentage of total heat input from coal d = Is the percentage of total heat input from gas (other than natural gas)	

[1] This may include a mixture of gases. In this case, natural gas may be part of the mixture.

(11) The provisions of this rule do not apply to the following emission unit or units:

(a) A unit that is subject to NOx standards federal regulations under 40 CFR part 52 or part 60, which contain limits that are equivalent to the limits in this rule and have been approved in Michigan's state implementation plan.

(b) A unit that is subject to another rule included in this part.

(c) A peaking unit. The owner or operator shall retain records of capacity for a period of 5 years demonstrating that the unit meets the definition of a peaking unit. The unit becomes subject to the provisions of this rule on January 1 of the year following failure to meet the peaking unit definition.

(d) A stationary gas turbine that is subject to a new source performance standard contained in 40 CFR part 60, subpart GG or KKKK, adopted by reference in R 336.1902.

R 336.1802 Applicability under the oxides of nitrogen (NOx) budget program.

Rule 802. (1) This rule establishes the applicability for a NOx budget program as described in these rules. Except as provided in subrule (2) of this rule, units that meet all of the following requirements are NOx budget units and are subject to the requirements of this rule and R 336.1810:

(a) Units that meet the definition of a NOx budget unit.

(b) Units that are located in the Michigan fine grid zone.

(2) A unit described in subrule (1) of this rule is not a NOx budget unit, if the unit has a federally enforceable permit that includes the following requirements, terms, and restrictions:

(a) A restriction on the unit to burn only natural gas or fuel oil during ozone control periods.

(b) A restriction of the unit's operation during each ozone control period by 1 of the following methods such that the unit's potential NOx mass emissions for the ozone control period are limited to 25 tons or less:

(i) By restricting the mass emissions to 25 tons or less of NOx as measured by a certified continuous emission monitoring system in accordance with 40 CFR 75.70 to 75.75, or, alternatively, 40 CFR 60.13, adopted by reference in R 336.1902.

(ii) By restricting the unit’s operating hours to no more than the number calculated by dividing 25 tons of potential NOx mass emissions by the unit’s maximum potential hourly NOx mass emissions. The maximum potential hourly NOx mass emissions are determined by multiplying a rate in either subparagraph (A) or (B) of this paragraph by the value in subparagraph (C) of this paragraph:

(A) The default NOx emission rate in 40 CFR 75.19, table LM-2, that would otherwise be applicable assuming that the unit burns only the type of fuel, for example, only natural gas or fuel oil, that has the highest default NOx emission factor of any type of fuel that the unit is allowed to burn under the fuel use restriction in subdivision (a) of this subrule.

(B) The maximum NOx emission rate established in accordance with 40 CFR 75.19(c)(1)(iv), which is adopted by reference in R 336.1902.

(C) The unit's maximum rated hourly heat input. The owner or operator of the unit may petition the department to use a lower value for the unit's maximum rated hourly heat input than the value as defined. The department may approve the lower value if the owner or operator demonstrates that the maximum hourly heat input specified by the manufacturer or the highest observed hourly heat input, or both, are not representative, and that the lower value is representative of the unit's current capabilities because modifications have been made to the unit limiting its capacity permanently.

(iii) By restricting the amount of fuel that can be used based on total heat input by dividing 25 tons by a NOx mass emission rate in either subparagraph (A) or (B) of paragraph (ii) of this subdivision and multiplying by the fuel heat content using the highest default gross calorific value under 40 CFR 75.19, table LM-5, and using a billing fuel flow meter or other fuel flow monitoring method device approved by the department to determine the quantity of fuel being used. 40 CFR part 75 is adopted by reference in R 336.1902.

(c) A requirement that the owner or operator of the unit shall retain records on site for a period of 5 years. The records must show hours of operation for units with the operating

hours restriction, volumes of fuel burned and maximum default gross calorific values for units with the heat input restriction, continuous emission monitoring system data for units with the continuous emission monitoring system exemption, and all other information necessary to demonstrate that requirements of the permit related to these restrictions were met.

(d) A requirement that the owner or operator of the unit shall report the unit's hours of operation, heat input, or continuous emission monitoring system measured NOx emissions to the department by November 1 of each year for which the unit is subject to the federally enforceable permit incorporating the provisions of this subrule. If the hours of operation are required to be reported, the owner or operator shall treat any partial hour of operation as a whole hour of operation.

(3) The department shall notify the USEPA, in writing, within 30 days after either of the following scenarios:

(a) A unit is issued a federally enforceable permit under subrule (2) of this rule.

(b) Any of the following provisions apply to a unit's federally enforceable permit previously issued by the department under subrule (2) of this rule:

(i) The permit is revised to remove any restriction established pursuant subrule (2) of this rule.

(ii) The permit includes any restriction established pursuant to subrule (2) of this rule that is no longer applicable.

(iii) The permit conditions do not comply with any restriction.

(4) A unit must be treated as commencing operation on September 30 of the ozone control period in which either of the following conditions apply:

(a) The fuel use restriction, operating hours, or emissions restriction is no longer applicable.

(b) The unit does not comply with the fuel use restriction, operating hours, or emissions restriction.

R 336.1803 Definitions for the oxides of nitrogen (NOx) budget program.

Rule 803. As used in R 336.1802 to R 336. 1818:

(a) “Administrator” means, for purposes of complying with reporting requirements in this part, both of the following:

(i) The USEPA for sources using 40 CFR part 75 monitoring requirements to comply.

(ii) The department for sources using 40 CFR part 60 or alternative monitoring requirements to comply.

(b) “Benchmark apportionment” means a point of reference against which the ozone control period NOx emissions from a NOx budget source will be compared if the state exceeds its ozone season budget of 2,209 tons.

(c) “Commence operation” means to have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber. Except as provided in R 336.1802(4) for a unit that is a NOx budget unit under R 336.1802(1) on the date of commencement of operation, the date remains the unit's date of commencement of operation even if the unit is subsequently modified, reconstructed, or repowered. Except as provided in R 336.180(4), for a unit that is not a NOx budget unit under R 336.1802(1) on the date of commencement of operation, the

date the unit becomes a NOx budget unit under R 336.1802(1) is the unit's date of commencement of operation.

(d) “Continuous Emission Monitoring System” means the equipment used to sample, analyze, measure, and provide, by means of readings taken at least once every 15 minutes, using an automated data acquisition and handling system, DAHS, a permanent record of NOx emission rate, stack gas volumetric flow rate or stack gas moisture content, as applicable, in a manner consistent with 40 CFR part 75 or 40 CFR part 60, appendices B and F, as applicable.

(e) “Department” means the department of environment, Great Lakes, and energy.

(f) “Emissions” means air pollutants exhausted from a unit or source into the atmosphere, as measured, recorded, and reported to the administrator by the NOx authorized account representative as defined in 40 CFR part 97 or responsible official.

(g) “Fossil fuel” means natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from natural gas, petroleum, or coal.

(h) “Generator” means a device that produces electricity.

(i) “Heat input” means, with regard to a specified period of time, the product, in million Btu/time, of the gross calorific value of the fuel, in Btu/pound, divided by 1,000,000 Btu/million Btu and multiplied by the fuel feed rate into a combustion device, in pounds of fuel/time, as measured, recorded, and reported to the administrator by the NOx authorized account representative as defined in 40 CFR part 97 or responsible official. Heat input does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

(j) “Life-of-the-unit, firm power contractual arrangement” means a unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity and associated energy from any specified unit, and pays its proportional amount of such unit’s total costs, pursuant to a contract for the duration of 1 of the following:

(i) The life of the unit.

(ii) A cumulative term of no less than 30 years, including contracts that allow an election for early termination.

(iii) A period equal to or greater than 25 years or 70% of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.

(k) “Maximum design heat input” means the ability of a unit to combust a stated maximum amount of fuel per hour, in million Btu/hour, on a steady state basis, as determined by the physical design and physical characteristics of the unit.

(l) “Maximum potential hourly heat input” means an hourly heat input, in million Btu/hour, used for reporting purposes when a unit lacks certified monitors to report heat input for any unit that uses 40 CFR part 75 to comply with this part. If the unit intends to use 40 CFR part 75, appendix D, to report heat input, this value should be calculated, in accordance with 40 CFR part 75, using the maximum fuel flow rate and the maximum gross calorific value. If the unit intends to use a flow monitor and a diluent gas monitor, this value should be reported, in accordance with 40 CFR part 75, using the maximum potential flowrate and either the maximum carbon dioxide concentration, in CO2, or the minimum oxygen concentration, in percent O2.

(m) “Maximum rated hourly heat input” means a unit-specific maximum hourly heat input, in million Btu/hour, which is the higher of the manufacturer's maximum rated hourly heat input or the highest observed hourly heat input.

(n) "Michigan fine grid zone" means the geographical area that includes all of the following counties:

(i) Allegan.
(ii) Barry.
(iii) Bay.
(iv) Berrien.
(v) Branch.
(vi) Calhoun.
(vii) Cass.
(viii) Clinton.
(ix) Eaton.
(x) Genesee.
(xi) Gratiot.
(xii) Hillsdale.
(xiii) Ingham.
(xiv) Ionia.
(xv) Isabella.
(xvi) Jackson.
(xvii) Kalamazoo.
(xviii) Kent.
(xix) Lapeer.
(xx) Lenawee.
(xxi) Livingston.
(xxii) Macomb.
(xxiii) Mecosta.
(xxiv) Midland.
(xxv) Monroe.
(xxvi) Montcalm.
(xxvii) Muskegon.
(xxviii) Newaygo.
(xxix) Oakland.
(xxx) Oceana.
(xxxi) Ottawa.
(xxxii) Saginaw.
(xxxiii) Saint Clair.
(xxxiv) Saint Joseph.
(xxxv) Sanilac.
(xxxvi) Shiawassee.
(xxxvii) Tuscola.
(xxxviii) Van Buren.
(xxxix) Washtenaw.
(xl) Wayne.

(o) “Monitoring system” means any monitoring system, including an excepted monitoring system that meets the requirements of 40 CFR part 75, a continuous emissions monitoring system, an approvable monitoring system that meets the requirements of 40 CFR part 60, or an alternative monitoring system that has been approved by the department.

(p) “Nameplate capacity” means the maximum electrical generating output, in Mwe, that a generator can sustain over a specified period of time when not restricted by seasonal or other deratings as measured in accordance with the United States Department of Energy standards.

(q) “NOx budget source” means any source that has 1 or more NOx budget units.

(r) "NOx budget unit" means the following:

(i) For units that commenced operation before January 1, 1997, a unit that has a maximum design heat input of more than 250,000,000 Btu’s per hour and that did not serve during 1995 or 1996 a generator producing electricity for sale.

(ii) For units that commenced operation after January 1, 1997, and before January 1, 1999, a unit that has a maximum design heat input of more than 250,000,000 Btu's per hour and that did not serve during 1997 or 1998 a generator producing electricity for sale.

(iii) For units that commence operation after January 1, 1999, a unit that has a maximum design heat input of more than 250,000,000 Btu's per hour and to which either of the following provisions apply:

(A) The unit at no time serves a generator producing electricity for sale.

(B) The unit at any time serves a generator producing electricity for sale, if the generator has a nameplate capacity of 25 megawatts or less and has the potential to use not more than 50% of the potential electrical output capacity of the unit.

(iv) All units listed in 40 CFR 97, subpart E, appendix B, adopted by reference in R 336.1902, in this state, except those listed that have since been decommissioned, dismantled, or permanently retired.

(v) A unit that meets both of the following:

(A) Serves at any time a generator with a nameplate capacity greater than 25 megawatts producing electricity for sale.

(B) Qualifies for an exemption from the Cross-State Air Pollution Rule NOx Ozone Season Group 3 Trading Program as a cogeneration unit under 40 CFR 97.1004(b), adopted by reference in R 336.1902.

(s) “Operator” means a person that operates, controls, or supervises a NOx budget unit or a NOx budget source, and includes, but is not limited to, any holding company, utility system, or plant manager of such a unit or source.

(t) “Owner” means any of the following:

(i) Any holder of any portion of the legal or equitable title in a NOx budget unit.

(ii) Any holder of a leasehold interest in a NOx budget unit. However, “owner” must not include a passive lessor, or a person that has an equitable interest through such lessor, whose rental payments are not based, either directly or indirectly, on the revenues or income from the NOx budget unit, unless expressly provided for in a leasehold agreement.

(iii) Any purchaser of power from a NOx budget unit under a life-of-the-unit, firm power contractual arrangement.

(u) "Ozone control period" means the period of May 1 to September 30.

(v) “Potential electrical output capacity” means 33% of a unit's maximum design heat input.

(w) “Receive” or “receipt of” means, when referring to the permitting authority or the administrator, to come into possession of a document, information, or correspondence, either in writing or through an authorized electronic transmission, as indicated in an official correspondence log, or by a notation made on the document, information, or correspondence, by the permitting authority or the administrator in the regular course of business.

(x) “Source” means any governmental, institutional, commercial, or industrial structure, installation, plant, building, or facility that emits or has the potential to emit any regulated air pollutant under the clean air act, 42 USC 7401 to 7671q. For purposes of section 502(c) of the clean air act, 42 USC 7661a, a source, including a source with multiple units, is considered a single facility.

(y) “Submit” or “serve” means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation, as follows:

(i) In person.

(ii) By United States Postal Service.

(iii) By other means of dispatch or transmission and delivery. Compliance with any submission, service, or mailing deadline is determined by the date of dispatch, transmission, or mailing and not the date of receipt.

(z) “Ton” or “tonnage” means any short ton or 2,000 pounds. For the purpose of determining the NOx emissions, total tons for an ozone control period is calculated as the sum of all recorded hourly emissions, or the tonnage equivalent of the recorded hourly emissions rates, with any remaining fraction of a ton equal to or greater than 0.50 ton deemed to equal 1 ton and any fraction of a ton less than 0.50 ton deemed to equal zero tons.

(aa) “Unit” means a fossil fuel-fired stationary boiler, combustion turbine, or combined cycle system that meets any of the following criteria:

(i) For units that commenced operation before January 1, 1996, the combustion of fossil fuel, alone or in combination with another fuel, where fossil fuel actually combusted comprises more than 50% of the annual heat input on a Btu basis during 1995, or, if a unit had no heat input in 1995, during the last year of operation of the unit before 1995.

(ii) For units that commenced operation after January 1, 1996 and before January 1, 1997, the combustion of fossil fuel, alone or in combination with another fuel, where fossil fuel actually combusted comprises more than 50% of the annual heat input on a Btu basis during 1996.

(iii) For units that commence operation after January 1, 1997, either of the following apply:

(A) The combustion of fossil fuel, alone or in combination with another fuel, where fossil fuel actually combusted comprises more than 50% of the annual heat input on a Btu basis during any year.

(B) The combustion of fossil fuel, alone or in combination with another fuel, where fossil fuel is projected to comprise more than 50% of the annual heat input on a Btu basis

during a year, provided that the unit must be fossil fuel-fired as of the date, during such year, on which the unit begins combusting fossil fuel.

(cc) "USEPA" means the United States Environmental Protection Agency.

R 336.1810 Allowance benchmark apportionments under the oxides of nitrogen (NOx) budget program.

Rule 810. (1) The department shall establish a budget program for the ozone control period for NOx budget units located within the Michigan fine grid zone. Total NOx emission benchmark apportionments are limited to 2,209 tons for each ozone control period.

(2) Pursuant to R 336.1802(1), the department shall establish a benchmark apportionment of NOx emissions for each NOx budget unit and source that will be used for comparison to actual NOx emissions from the NOx budget units at the source. The benchmarks will be apportioned and maintained as follows:

(a) For NOx budget units that commence operation before May 1, 2020 the sum of the benchmark apportionments will be 1,699 tons, subject to decrease because of unit retirements as described in subdivision (d) of this subrule.

(b) For any new NOx budget unit commencing operation after May 1, 2020, the department shall establish a benchmark apportionment from the new unit set-aside pool for each ozone control period. The initial amount of the new unit set aside pool will be 510 tons, subject to increase because of unit retirements as described in subdivision (d) of this subrule.

(c) Benchmark apportionments for all NOx budget units and sources are maintained and made available by the department and updated annually by April 1. These benchmark apportionments are established according to the requirements described in subrule subdivisions (a), (b), and (d) of this subrule, and are based on a combination of federally enforceable permit limits, maximum nameplate capacities with an appropriate emission factor, physical limitations, and other attributes of the unit or process as applicable. The department establishes a benchmark apportionment for each active NOx budget unit that is summed by source to create a NOx budget source total benchmark apportionment. Bases for the established benchmark apportionments and adjustments to the amount of the new unit set aside pool and the sum of the benchmark apportionments for NOx budget units that commenced operation before May 1, 2020 are included with the benchmark apportionment information that is made available.

(d) The amount of the new unit set- aside pool and the sum of the benchmark apportionments for NOx budget units that commenced operation before May 1, 2020 are updated as appropriate in the following ways:

(i) For any new NOx budget unit as described in subdivision (b) of this subrule, the department shall establish a benchmark apportionment for the ozone control period based on a federally enforceable NOx emission limit in a permit to install. The department shall include appropriate monitoring, recordkeeping, and reporting requirements for ozone season NOx emissions within the issued permit.

(ii) For a NOx budget unit that commenced operation before May 1, 2020, and that is permanently retired, the responsible official for the NOx budget source shall do 1 of the following:

(A) Notify the department's air quality division within 30 days after the NOx budget unit's permanent retirement and not emit any NOx from the retired unit starting on the date that the unit is permanently retired. They shall then have its corresponding benchmark apportionments revoked and added to the new unit set aside pool described in subdivision (b) of this subrule at the end of the calendar year unless the facility meets the requirements of subparagraph (B) of this paragraph. The sum of the benchmark apportionments for all NOx budget units that commenced operation before May 1, 2020 shall be reduced accordingly.

(B) Identify at the time of retirement of any NOx budget unit that commenced operation before May 1, 2020 if the facility would like to transfer the retired units' benchmark apportionments to new units installed in the same ozone season.

(iii) If ownership of a NOx budget unit is transferred as described in R 336.1219, all associated unit benchmark apportionments transfer with the unit to the new owner.

(3) The owner or operator of a NOx budget unit shall monitor and record NOx emissions during the ozone control period using 1 of the following methods:

(a) In accordance with 40 CFR part 75 monitoring requirements that include, but are not limited to, data substitution procedures and monitoring and reporting requirements. The owner or operator shall report to the USEPA's clean air markets division the information required by 40 CFR part 75 and the department the information required in subrule (4) of this rule. If this approach is followed, a responsible official must be authorized to certify each submission and may delegate the responsible official's authority in accordance with 40 CFR part 97, subpart B, adopted by reference in R 336.1902.

(b) The owner or operator may make a request to the department to monitor and record NOx emissions in accordance with methodologies acceptable under 40 CFR part 60. The owner or operator shall submit a monitoring plan to the department to be approved describing how the amount of NOx emissions in tons per ozone control period are determined from the 40 CFR part 60 NOx emission rate data. The owner or operator shall report to the department the information as described in the approved plan and the information in subrule (4) of this rule.

(c) The owner or operator of a NOx budget unit that is natural gas-fired and whose NOx mass emissions is 25 tons or less over each of the 3 previous ozone seasons may opt for alternative monitoring and recordkeeping. Except as provided in paragraph (iii) of this subdivision, those choosing this option shall notify the department of their intention before the next ozone season to use the following alternative monitoring and recordkeeping methods:

(i) The hourly NOx mass emissions are determined by multiplying a rate in either subparagraph (A) or (B) of this paragraph by the unit's maximum rated hourly heat input, except as allowed in subparagraph (C) of this paragraph:

(A) The default NOx emission rate of 1.5 lbs/million Btu for boilers or 0.7 lbs/million Btu for combustion turbines.

(B) The maximum NOx emission rate established through stack testing in accordance with 40 CFR 75.19(c)(1)(iv) or a similar stack testing methodology using USEPA reference methods. If this approach is followed, ongoing stack tests must be conducted not less than once every 5 years after the date of the previous stack test for units still in operation.

(C) The owner or operator of the NOx budget unit may petition the department to use a lower value for the unit's maximum rated hourly heat input as described in R 336.1802(2)(b)(ii)(C).

(ii) The owner or operator of the NOx budget unit shall retain records on site for a period of 5 years. The records must show, as applicable, the hourly NOx mass emissions, hours of operation, hourly volumes of fuel burned and maximum default gross calorific values, continuous emission monitoring system data, and all other information necessary to demonstrate the amount of NOx emitted during the ozone season.

(iii) Any NOx budget unit that is natural gas-fired and has less than 3 years of NOx mass emissions of 25 tons or less may petition the department to use alternative monitoring and recordkeeping as allowed in this subdivision. The petition must include all the reasons why the projected NOx emissions for the next ozone season will remain at 25 tons or less. The petition must be approved by the department before using the alternative monitoring and recordkeeping methods described in this subrule.

(iv) Any NOx budget unit that is using this alternative monitoring and recordkeeping method and exceeds 25 tons for the ozone season must comply with either subdivision (a) or (b) of this subrule starting with the next ozone season. Once the unit has 3 consecutive years of data showing emissions of 25 tons or less, the owner or operator may request to the department to use the alternative monitoring and recordkeeping methods described in this subdivision before the next ozone season.

(4) The owner or operator of a NOx budget unit shall submit to the department all the following information by November 1 each year:

(a) The type of each unit subject to this rule with an identifying name or number, or both.

(b) The name and address of the plant where the unit is located.

(c) The name and telephone number of the responsible official or their authorized representative responsible for demonstrating compliance with this rule.

(d) A report documenting, to the satisfaction of the department, each subject unit’s hours of operation, heat input, total NOx emissions for the ozone control period and related materials that include, but are not limited to, the amount of fuel used, types of fuels burned, emission factor verified or revised by most recent stack test, and other information that was used to determine total NOx emissions for the ozone season, as applicable. For the purposes of this rule, this information must be used to determine “actual NOx emissions” for NOx budget units.

(e) Following any ozone control period in which a unit located in an area designated as non-attainment for an ozone standard as of the end of the ozone control period exceeds its unit benchmark apportionment, a report documenting, to the satisfaction of the department, a description of reasons for the exceedance of the benchmark and actions taken to meet benchmark apportionment levels in the future.

(f) A certification by a responsible official or their authorized representative that states, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

(5) Following any ozone control period in which the total actual NOx emissions of all NOx budget units exceed 2,209 tons, both of the following must occur:

(a) Each source’s total actual NOx emissions from NOx budget units must be compared to its source total benchmark apportionment as described and established in subrule (2) of this rule.

(b) Within 30 days after receipt of a request by the department, each source that was determined to be exceeding its source total benchmark apportionment must submit a report to the department that includes the following:

(i) An explanation of the circumstances that caused the source to exceed its benchmark apportionment.

(ii) An approvable plan describing what actions will be taken to prevent recurrences. This plan must contain a timeline of all actions to take place in response to the exceedance.

(iii) A source exceeding its benchmark apportionment that does not already have a permit to install with federally enforceable NOx emission limits for the ozone season shall apply for and obtain such a permit.

R 336.1818 Emission limitations for the oxides of nitrogen (NOx) SIP call for stationary internal combustion engines.

Rule 818. (1) As used in this rule:

(a) "Affected engine" means a stationary internal combustion engine that is a large NOx SIP call engine, or another stationary internal combustion engine that is subject to NOx control under a compliance plan established under subrule (3) of this rule.

(b) "Diesel engine" means a compression ignited 2- or 4-stroke engine in which liquid fuel injected into the combustion chamber ignites when the air has been compressed to a temperature sufficiently high for auto-ignition.

(c) "Dual fuel engine" means any stationary reciprocating internal combustion engine in which a liquid fuel, typically diesel fuel, is used for compression ignition and gaseous fuel, typically natural gas, is used as the primary fuel.

(d) "Engine seasonal NOx 2007 tonnage reduction" means the year 2007 ozone control period NOx emissions reductions value, tons, for a large NOx SIP call engine, which is based on an NOx control efficiency of 82% for large gas-fired engines and 90% for diesel and dual-fuel engines.

(e) "Facility seasonal NOx 2007 tonnage reduction" means the total of the engine ozone control period NOx 2007 tonnage reductions attributable to all of an owner or operator's large NOx SIP call engines.

(f) "Large NOx SIP call engine" means a stationary internal combustion engine emitting more than 1 ton of NOx per average ozone control period day in 1995.

(g) "Lean-burn engine" means any 2- or 4-stroke spark-ignited engine that is not a rich-burn engine.

(h) "Ozone control period" means the period of May 1 to September 30.

(i) "Past NOx emission rate" means the emission rate of an affected engine in grams per brake horsepower-hour as determined by performance testing consistent with the requirements of 40 CFR part 60, appendix A, as adopted by reference in R 336.1902. Where the performance test data are not available, the past NOx emission rate may be determined by the department on a case-by-case basis using, for example, appropriate emission factors. For large NOx SIP call engines, the past NOx emission rate is the uncontrolled emission rate.

(j) "Projected operating hours" means the projected actual number of hours of operation per ozone control period for an affected engine.

(k) "Projected NOx emission rate" means the projected emission rate in grams per brake horsepower-hour after installation of controls on an affected engine.

(l) "Rich-burn engine" means a spark-ignited stationary internal combustion engine in which the concentration of oxygen in the exhaust stream before any dilution is 1% or less measured on a dry basis.

(m) "Stationary internal combustion engine" means an internal combustion engine of the reciprocating type that is either attached to a foundation at a facility or is designed to be capable of being carried or moved from 1 location to another and remains at a single site at a building, structure, facility, or installation for more than 12 consecutive months. An engine, or engines, that replaces an engine at a site that is intended to perform the same or similar function as the engine replaced is included in calculating the consecutive time period.

(2) The requirements of this rule apply to the owner or operator of a large NOx SIP call engine located in the Michigan fine grid zone.

(3) An owner or operator of a large NOx SIP call engine shall not operate the engine in the ozone control period unless the owner or operator complies with either the requirements of a compliance plan that meets the following provisions or the emission rate limitations expressed as NOx listed in subdivision (b) of this subrule:

(a) Compliance plan includes the following:

(i) Must be approved by the department.

(ii) Must demonstrate enforceable emission reductions from 1 or more stationary internal combustion engines equal to or higher than the facility seasonal NOx 2007 tonnage reduction.

(iii) May cover some or all engines at an individual facility or at several facilities or at all facilities in the Michigan fine grid zone that are under control of the same owner or operator.

(iv) Must include the following items:

(A) A list of affected engines, including the engine's manufacturer, model, facility location address, and facility state registration number.

(B) The projected ozone control period hours of operation for each affected engine and supporting documentation.

(C) A description of the NOx emissions control installed, or to be installed, on each affected engine and documentation to support the projected NOx emission rates.

(D) The past and projected NOx emission rates for each affected engine in grams per brake horsepower-hour.

(E) A numerical demonstration that the emission reductions obtained from all affected engines will be equivalent to or greater than the owner or operator's facility seasonal NOx 2007 tonnage reduction, based on the difference between the past NOx emission rate and the projected NOx emission rate multiplied by the projected operating hours for each affected engine.

(F) Provisions for monitoring, reporting, and recordkeeping for each affected engine.

(v) The projected NOx emission rate in grams per brake horsepower-hour for each affected engine must be included in a federally enforceable permit.

(b) The following are NOx emission rate limitations:

(i) Rich-burn, 1.5 grams per brake horsepower per hour.

(ii) Lean-burn, 3.0 grams per brake horsepower per hour.

(iii) Diesel, 2.3 grams per brake horsepower per hour.

(iv) Dual fuel, 1.5 grams per brake horsepower per hour.

(4) An owner or operator subject to the requirements of subrule (3) of this rule shall comply with the following requirements:

(a) Each affected engine subject to this rule must perform monitoring sufficient to yield reliable data for each ozone control period that is representative of a source's compliance with the projected NOx emission rate in subrule (3)(a) of this rule or the emission rate limit specified in subrule (3)(b) of this rule. The monitoring may include 1 of the following:

(i) Performance tests consistent with either of the applicable provisions of 40 CFR part 60 or part 75 adopted by reference in R 336.1902. An owner or operator of an affected engine shall submit a test plan to the department not less than 30 days before the scheduled test date. To ensure proper testing, the plan must supply the information in the department format for submittal of source emission test plans and reports. The owner or operator shall give the department a reasonable opportunity to witness the tests. An owner or operator shall submit 2 copies of each compliance performance test to the department within 60 days after completion of the testing. The test results must be presented and include data as requested in the department format for submittal of source emission test plans and reports.

(ii) A parametric monitoring program that specifies operating parameters, and their ranges, that provides reasonable assurance that each engine's emissions are consistent with the requirements of subrule (3) of this rule.

(iii) A predictive emissions measurement system that relies on automated data collection from instruments.

(iv) A continuous emission monitoring system that complies with the procedures set forth in 40 CFR part 60, subpart A and appendix B, and with the quality assurance procedures in 40 CFR part 60, appendix F; or 40 CFR part 75, as applicable and acceptable to the department. An owner or operator of an emission unit that elects this option shall submit a monitoring plan to the department not less than 30 days before installation. The owner or operator shall provide the department with a 30-day notice before a relative accuracy test audit.

(b) Recordkeeping requirements are as follows:

(i) Maintain all records necessary to demonstrate compliance with the requirements of this rule for a period of 5 calendar years at the plant at which the affected engine is located. The records must be made available to the department and the USEPA upon request.

(ii) For each engine subject to the requirements of this rule, the owner or operator shall maintain records of all of the following:

(A) Identification and location of each engine subject to the requirements of this subrule.

(B) Calendar date of record.

(C) The number of hours the unit is operated during each ozone control period compared to the projected operating hours.

(D) Type and quantity of fuel used.

(E) The results of all compliance tests.

(c) An owner or operator subject to the requirements of this rule shall submit the results of all compliance tests to the department within 60 days after the completion of the testing.

R 336.1840 Definitions for the NOx RACT rules.

Rule 840. As used in R 336.1841 to R 336.1846:

(a) “2015 ozone nonattainment areas” means collectively the nonattainment area of Berrien County, the nonattainment area of the western portion of Allegan County, and the nonattainment area of the western portion of Muskegon County.

(b) “Engine test cell” or “engine test stand” means a combustion device and its associated apparatus used to develop, characterize, and test uninstalled engines for operational and emission specifications.

(c) “Equal to or more stringent than” means the pollutant, units of measurement, time periods, operating scenarios, equipment, monitoring, and recordkeeping, as applicable, of 1 standard or requirement can be established to be at least as stringent as that of a second standard or requirement.

(d) “Gaseous fuels” means propane, natural, digester, landfill, and coke oven gas.

(e) “Liquid fuels” means residual and distillate fuel oils, and liquid biomass.

(f) “MMBtu” means million British thermal units.

(g) “NOx” means oxides of nitrogen.

(h) “RACT” means Reasonably Available Control Technology.

(i) “Solid fuels” means coal, pet coke, tire-derived material, wood, and solid biomass.

(j) “Tune-up” means adjustments made to an engine or boiler in accordance with procedures supplied by the manufacturer, vendor, or as applicable, certified, or licensed specialist to optimize the combustion efficiency or performed in accordance with 40 CFR part 63, subpart DDDDD or JJJJJJ.

(k) “Western portion of Allegan County” means the areas located in Allegan County described as Casco Township, Cheshire Township, city of Douglas, city of Holland, city of Saugatuck, Clyde Township, Fillmore Township, Ganges Township, Heath Township, Laketown Township, Lee Township, Manlius Township, Overisel Township, Saugatuck Township, and Valley Township.

(l) “Western portion of Muskegon County” means the areas located in Muskegon County described as Blue Lake Township; city of Montague; city of Muskegon; city of Muskegon Heights; city of North Muskegon; city of Roosevelt Park; city of Whitehall; Dalton Township, including village of Lakewood Club; Fruitland Township; Fruitport Township, including village of Fruitport; Laketon Township; Montague Township; Muskegon Township; city of Norton Shores; White River Township; and Whitehall Township.

R 336.1841 RACT emission limitations for engines.

Rule 841. (1) As used in this rule:

(a) “Certified engine operating in a non-certified manner” means an engine not operated and maintained according to the manufacturer's emission-related written instructions or if no manufacturer emission-related instructions were provided.

(b) “Engine” means any reciprocating internal combustion engine that uses reciprocating motion to convert heat energy into mechanical work and is not mobile. An engine test cell or engine test stand and any associated apparatus are not considered engines for the purpose of this rule.

(2) A person is subject to this rule and shall not cause or allow the emission of NOx from the combustion of fuels in an engine or its replacement unit in excess of the requirements of this rule at facilities meeting either of the following criteria:

(a) Located in the 2015 ozone nonattainment areas and either of the following:

(i) A stationary source with a potential to emit of 100 tons per year or greater of NOx from all combined NOx sources upon the effective date of this rule.

(ii) Any engine manufactured after the effective date of this rule.

(b) Has at any time been subject to the requirements of this rule or becomes subject as part of a normal maintenance program that meets the exemption requirements of R 336.1285(2)(a)(vi). The requirements in this rule, at a minimum, must permanently apply regardless of any change in the attainment or maintenance status of the stationary source location or the potential to emit of the stationary source, when the engine is located at the stationary source.

(3) Engines may utilize the following exemptions from all provisions of this rule except subrule (6)(d). If an exemption is utilized, all applicable requirements of R 336.1846 must be met. All provisions of this rule apply if the engine is not utilizing an exemption listed below:

(a) Engines less than 300 horsepower, HP.

(b) Emergency engines as described in 40 CFR 63.6640(f) and 63.6675.

(c) Engines subject to federal regulations under 40 CFR part 60, 40 CFR part 61, or 40 CFR part 63, if the applicable regulations are included in the SIP and have equivalent standards established to be equal to or more stringent than the requirements and limits of subrule (4) of this rule.

(d) Engines used for research and development.

(e) Engines with a federally enforceable limit of 100 hours per 12-month rolling time period.

(f) Black start engines whose only purpose is to start up combustion turbines and all associated equipment.

(4) Except as allowed by R 336.1845 or as required by subrule (7) of this rule, a person that generates NOx emissions from the use of an engine shall meet the following limits within table 841 on and after the effective date of this rule, as applicable:

TABLE 841
NOx emission limits for internal combustion engines.

Engine type	Grams of NOx per brake horsepower-hour
Any engine from 300 HP to 500 HP	N/A
Compression ignition Greater than 500 HP	 3
Spark ignition, natural gas burning engines 2 stroke greater than 500 HP 4 stroke from 500 HP to 1000 HP 4 stroke greater than 1000 HP	 3 3 1.5
Spark ignition greater than 500 HP using gaseous fuels other than natural gas	3

(5) Compliance and monitoring with this rule must be determined using 1 of the following methods:

(a) Maintain engine certification according to procedures specified in 40 CFR part 60, subpart IIII, JJJJ, or ZZZZ, as applicable, for the same model year which includes, but is not limited to:

(i) Operate and maintain the certified engine and, if applicable, control device according to the manufacturer's emission-related written instructions.

(ii) Use diesel fuel with a sulfur content not to exceed 15 parts per million or natural gas, as applicable.

(b) For a non-certified engine or a certified engine operating in a non-certified manner, a person subject to this rule shall meet the following requirements:

(i) Create and implement an approvable maintenance plan for the engine. The plan must contain, at a minimum, the maintenance requirements of 40 CFR part 63, subpart ZZZZ, which includes, among other requirements, the conditions of inspection, the frequency of inspections, operating parameters to be monitored and their normal operating ranges, major replacement parts that must be maintained in inventory and a description of corrective procedures or operational changes that must be taken in the event of a malfunction or failure to comply with applicable emission limits.

(ii) To the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions at all times, including during startup, shutdown, and malfunction. The department shall determine compliance with this requirement based on information that may include, but is not limited to, monitoring results and review of operation and maintenance procedures and records.

(iii) For emission units subject to an emission rate limit specified in subrule (4) of this rule, compliance must be determined by 1 of the following:

(A) If a performance test has not been done within the last 18 months before the effective date of this rule, the person subject to this rule shall conduct an initial performance test, acceptable to the department, to demonstrate the required emission rate limit within 180 days after the effective date of this rule, or within 30 days after startup if the unit is not operating. An acceptable performance test must then be completed every 24 months, from the date of the last test, consistent with the requirements of R 336.2004. The 24-month frequency may be increased to once every 5 years when the most recent

test results are 75% of the limit and the source certifies no other tests or information indicates a value over 75% of the limit.

(B) The person subject to this rule shall submit to the department for approval a monitoring plan describing how the NOx emissions shall be monitored. The monitoring plan must include how the performance of periodic monitoring is sufficient to yield reliable data from relevant time periods representative of the source's compliance with the emission rates specified in subrule (4) of this rule. The periodic monitoring may include the following:

(I) Performance test results consistent with the requirements of R 336.2004, or portable monitors using ASTM D6522, adopted by reference in R 336.1902. The protocol must be submitted as required under R 336.2001.

(II) A parametric monitoring program that specifies operating parameters and ranges providing reasonable assurance that each engine's emissions are consistent with the requirements of this rule.

(III) A predictive emissions measurement system that relies on automated data collection from instruments.

(IV) A continuous emission monitoring system that complies with 40 CFR part 60 or part 75, both adopted by reference in R 336.1902.

(6) A person subject to this rule shall obtain current information and maintain records for all requirements or exemptions in sufficient detail to determine compliance. The information and records must be made available to the department upon request. The information and records must, at a minimum, include the following:

(a) The installation date of the engine.

(b) For non-certified engines or certified engines operating in a non-certified manner, the following:

(i) The maintenance plan.

(ii) All associated maintenance records for a minimum of 5 years.

(iii) Either the results of the most recent stack test or a minimum of 5 years of all monitoring data necessary to demonstrate compliance with the limits and requirements in subrule (4) of this rule, or both, as applicable.

(iv) The manufacture date, if available.

(c) For certified engines, documentation from the manufacturer that the engine is certified to meet the emission standards and the manufacture date.

(d) If the provisions of this rule are not applicable as allowed by subrule (3), all information necessary to demonstrate that the equipment meets the exemption being utilized.

(7) If records are not requested by the department for any 3-year rolling period, the facility will submit a report to the department with information and records in sufficient detail to determine compliance with the limits in this rule.

(8) A person that generates NOx emissions from the use of an engine located in the 2015 ozone nonattainment area shall meet the following limits within table 841a 12 months after the effective date of a final determination by the USEPA, under section 182(c)(9) of the clean air act, 42 USC 7511a, for either of the following elements of the 2015 ozone National Ambient Air Quality Standard:

(a) The USEPA makes a determination that reasonable further progress as described in Michigan's approved state implementation plan was not achieved.

(b) The USEPA makes a determination that the area failed to attain the standard by the applicable attainment date.

TABLE 841a
NOx emission limits for internal combustion engines.

Engine type	Grams of NOx per brake horsepower-hour
Compression Ignition	
Greater than 500 HP	2.5
Spark ignition, natural gas burning engines	
2 stroke greater than 500 HP	2.5
4 stroke from 500 HP to 1000 HP	2.5
4 stroke greater than 1000 HP	1.0
Spark Ignition greater than 500 HP using landfill, digester, or other gaseous fuels	2.5

R 336.1842 RACT emission limitations for boilers.

Rule 842. (1) As used in this rule:

(a) "Boiler" means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water.

(b) "Limited use boiler" means a boiler that burns an amount of solid, liquid, or gaseous fuels and has a federally enforceable annual capacity factor of no more than 10%.

(2) A person shall not cause or allow the emission of NOx from the combustion of fuels in boilers in excess of the requirements of this rule at facilities meeting either of the following criteria:

(a) Located in the 2015 ozone nonattainment areas and either of the following:

(i) A stationary source with a potential to emit 100 tons per year or greater of NOx from all combined NOx sources upon the effective date of this rule.

(ii) A emission unit installed after the effective date of this rule.

(b) Has at any time been subject to the requirements of this rule. The requirements in this rule, at a minimum, must permanently apply regardless of any change in the attainment or maintenance status of the stationary source location or the potential to emit of the stationary source.

(3) If an exemption is utilized, all applicable requirements of R 336.1846 must be met. If the boiler is not utilizing an exemption listed below, all provisions of this rule apply. Boilers may utilize the following exemptions from all provisions of this rule except subrule (8)(d):

(a) Boilers with a heat input capacity rating of less than 20 MMBtu/hr.

(b) Boilers subject to federal regulations under 40 CFR part 60, part 61, or part 63 if the applicable regulations are included in the state implementation plan and have equivalent standards established to be equal to or more stringent than the requirements and limits of subrule (4) of this rule.

(c) Limited use boilers.

(4) Except as allowed under R 336.1845, or as required by subrule (9) of this rule, a person that generates NOx emissions from the use of a subject boiler shall meet the following provisions on and after the effective date of this rule, as applicable:

(a) The following NOx limits within table 842:

TABLE 842
NOx emission limits for boilers

Fuel Type	Lbs of NOx per million Btu of heat input on hourly basis [a]
All boilers: > 20 MMBTU/hr =< 50 MMBtu/hr	N/A
Gaseous fuels: > 50 MMBtu/hr	0.10
Distillate Oil: > 50 MMBtu/hr	0.12
Residual Oil: > 50 MMBtu/hr	0.25
Solid fuels: > 50 MMBtu/hr, < 100 MMBtu	0.35
Solid fuels: => 100 MMBtu	0.25

[a] Except for alternative averaging periods as allowed in subrule (7)(b)of this rule.

(b) A boiler installed after the effective date of this rule must utilize a low NOx burner, equivalent technology, or better technology.

(c) For emission units operating with a combination of gas, oil, or other fuels, a variable emission limit calculated as the heat input weighted average of the applicable emission limits must be used. The emission limit must be determined as follows:

$$\text{Emission limit} = \sum_{i=1}^{n} (Pi)(Li)$$

Where:

P*i* = Percentage of total heat input from fuel listed in table 842 on a 24-hr basis

L*i* = Applicable limit for fuel listed in table 842

n = Number of different fuel types

(5) The person subject to this rule shall conduct a tune-up of each boiler at the following frequency:

(a) For a boiler subject to the tune-up requirements of 40 CFR part 63, subpart DDDDD, JJJJJJ, and UUUUU adopted by reference in R 336.1902, tune-ups must be conducted in the manner and frequency as prescribed in that rule.

(b) All boilers not described in subrule (5)(a) must undergo a tune-up following the requirements in subrule (6) at the frequency indicated in table 842a.

TABLE 842a
Boiler tune-up frequency by emission unit type.

Boiler Type	Frequency of tune-up
Natural gas-fired or equipped with an oxygen analyzer system	Every 5 years but no more than 61 months after the last tune-up
All other fuels	Once every year but no longer than 13 months after the last tune-up

(6) For boilers that are subject to subrule (5)(b) of this rule, the person subject to this rule shall meet the following tune-up related requirements on and after the effective date of this rule, as applicable:

(a) Create and implement a plan for the boiler that is approvable by the department. At a minimum, this plan must address the following details regarding tune-ups and denote the frequency these activities shall occur:

(i) Inspection of the burner, and cleaning or replacement of any components of the burner as necessary.

(ii) Inspection of the flame pattern and adjustments of the burner as necessary to optimize the flame pattern. The adjustment must be consistent with the manufacturer's specifications, if available.

(iii) Inspection of the system controlling the air-to-fuel ratio, as applicable, and confirmation that it is correctly calibrated and functioning properly.

(iv) Optimization of total emissions of NOx and carbon monoxide, CO. This should be consistent with the manufacturer's specifications, if available, and with any NOx requirement to which the emission unit is subject.

(v) Measurement of the concentrations in the effluent stream of CO in parts per million by volume, and oxygen in volume percent, before and after the adjustments are made. Measurements may be on either a dry or wet basis, as long as it is the same basis before and after the adjustments are made. Measurements may also be taken using a properly operated and maintained portable CO analyzer.

(vi) If the emission unit is shutdown on the required date for tune-up activities, the tune-up must be conducted as soon as practicable, but no longer than 30 days after startup.

(b) To the extent practicable, maintain and operate the boiler in a manner consistent with good air pollution control practice for minimizing emissions at all times including during startup, shutdown, and malfunction. Determination of whether such operation and maintenance procedures are being used is based on information available to the department that may include, but is not limited to, monitoring results and review of operation and maintenance procedures and records.

(7) For boilers subject to an emission rate limit specified in subrule (4) of this rule, compliance must be determined by using 1 of the following:

(a) If a performance test has not been done within the last 18 months before the effective date of this rule, the person subject to this rule shall conduct an initial performance test, acceptable to the department, within 180 days after the effective date of this rule to demonstrate compliance with the required emission rate limit, or within 30 days after startup if the unit is not operating. An acceptable performance test must then be completed every 24 months, after the date of the last test, consistent with the

requirements of R 336.2004. A performance test that determines that the emission unit complies with the limit in table 842 must be presumed to comply with this limit as long as the emission unit maintains regularly scheduled tune-ups required in subrule (5) of this rule until the next performance test is conducted. The 24-month frequency may be increased to once every 5 years when the most recent test results are 75% of the limit and the source certifies no other tests or information indicates a value over 75% of the limit.

(b) An approvable plan must be submitted to the department describing how the NOx emissions are monitored. The monitoring plan must include the performance of periodic monitoring that is sufficient to yield reliable data from relevant time periods representative of the source's compliance with the emission rates specified in subrule (4) of this rule. Periodic monitoring may include the following:

(i) A parametric monitoring program that specifies operating parameters, and their ranges, that will provide reasonable assurance that each boiler's emissions are consistent with the requirements of this rule.

(ii) A predictive emissions measurement system that relies on automated data collection from instruments. If a boiler is equipped with a predictive emission monitoring system, then compliance with the applicable emissions limit must be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(iii) A continuous emission monitoring system that complies with 40 CFR part 60 or part 75, both adopted by reference in R 336.1902. If a boiler is equipped with a continuous emission monitoring system, compliance with the applicable emissions limit must be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(8) A person operating a boiler subject to this rule shall obtain current information and maintain records for all requirements or exemptions in sufficient detail to determine compliance. The information and records must be made available to the department upon request. Examples of acceptable information and records include, but are not limited to the following:

(a) Installation dates of the boiler.

(b) Records of tune-ups and related inspections conducted in accordance with subrule (5) of this rule and all associated records for a minimum of 5 years.

(c) Either the results of the most recent stack test, or a minimum of 5 years of all monitoring data necessary to demonstrate compliance with limits and requirements in subrule (4) of this rule, or both, as applicable.

(d) If the provisions of this rule are not applicable as allowed by subrule (3) of this rule, all information necessary to demonstrate that the equipment meets the exemption being utilized.

(9) If records are not requested by the department for any 3-year rolling period, the facility will submit a report to the department with information and records in sufficient detail to determine compliance with the limits in this rule.

(10) A person that generates NOx emissions from the use of a boiler located in the 2015 ozone nonattainment area shall meet the following limits within table 842b 12 months after the effective date of a final determination by the USEPA, pursuant to section 182(c)(9) of the clean air act 42 USC 7511a, for either of the following elements of the 2015 ozone National Ambient Air Quality Standard:

(a) The USEPA issues a determination that reasonable further progress as described in Michigan's approved state implementation plan was not achieved.

(b) The USEPA makes a determination that the area failed to attain the standard by the applicable attainment date.

TABLE 842b
NOx emission limits for boilers

Fuel Type	Lbs of NOx per million Btu of heat input on hourly basis [a]
All boilers > 20 MMBTU/hr =< 50 MMBtu/hr	N/A
Gaseous fuels; > 50 MMBtu/hr	0.08
Distillate Oil; > 50 MMBtu/hr	0.10
Residual Oil ; > 50 MMBtu/hr	0.20
Solid fuels; > 50 MMBtu/hr , < 100 MMBtu	0.30
Solid fuels; => 100 MMBtu	0.20

[a] Except for alternative averaging periods as allowed in subrule (7)(b) of this rule.

R 336.1843 RACT emission limitations for combustion turbines.

Rule 843. (1) As used in this rule, "emergency turbines" means turbines used in emergency situations to produce power for critical networks or equipment when electric power from the local utility is interrupted, to pump water in the case of fire or flood or required maintenance checks and readiness testing.

(2) A person is subject to this rule and shall not cause or allow the emission of NOx from the combustion of fuels in turbines in excess of the requirements of this rule at facilities meeting either of the following criteria:

(a) Located in the 2015 ozone nonattainment areas and either of the following:

(i) A stationary source with a potential to emit of 100 tons per year or greater of NOx from all combined NOx sources upon the effective date of this rule.

(ii) An emission unit installed after the effective date of this rule.

(b) Has been subject to the requirements of this rule. The requirements in this rule, at a minimum, must permanently apply regardless of a change in the attainment or maintenance status of the stationary source location or the potential to emit of the stationary source.

(3)If an exemption is utilized, all applicable requirements of R 336.1846 must be met. If the turbine is not utilizing an exemption listed below, all provisions of this rule apply. Turbines may utilize the following exemptions from all provisions of this rule except subrule (7)(d) of this rule:

(a) Turbines subject to federal regulations under 40 CFR part 60, part 61, or part 63, or other federally enforceable conditions if the applicable regulations are included in the state implementation plan and have equivalent standards established to be equal to or more stringent than the requirements and limits of subrule (4) of this rule.

(b) Turbines that are rated at less than 30 MMBtu/hr.

(c) Emergency turbines.

(4) Except as allowed by R 336.1845, a person that generates NOx emissions from the use of a turbine must meet the following:

(a) The limits within table 843 by the effective date of this rule:

TABLE 843
NOx emission limits by turbine and fuel type

Turbine type and fuel	Parts per million (volume, dry, corrected to 15% oxygen on an hourly basis) [a]
Gaseous fuel fired	
Between 30 and 50 MMBtu/hr	150
50 MMBtu/hr and greater	25
Liquid fuel fired	
Between 30 and 50 MMBtu/hr	200
50 MMBtu/hr and greater	65

[a] Except for alternative averaging periods as allowed in subrule (6)(b) of this rule.

(b) For emission units operating with a combination of gaseous and liquid fuels, a variable emission limit calculated as the concentration average of the applicable emission limits, as described in R 336.1842(4)(c) must be used.

(5) A person subject to this rule shall demonstrate compliance by implementing and maintaining the following:

(a) Create and implement an approvable maintenance plan for the turbine.

(b) To the extent practicable, maintain and operate the turbine in a manner consistent with good air pollution control practice for minimizing emissions at all times including during startup, shutdown, and malfunction. The department shall determine compliance with this requirement based on information that may include, but is not limited to, monitoring results and review of operation and maintenance procedures and records.

(6) For turbines subject to the emission rate limit specified in subrule (4) of this rule, compliance must be determined by using 1 of the following:

(a) If a performance test has not been done within the last 18 months before the effective date of this rule, the person subject to this rule shall conduct an initial performance test, acceptable to the department, within 180 days after the effective date of this rule to demonstrate compliance with the required emission rate limit, or within 30 days after startup if the unit is not operating. A performance test must then be completed every 24 months, after the date of the last test, consistent with the requirements of R 336.2004. The 24-month frequency may be increased to once every 5 years when the most recent test results are 75% of the limit and the source certifies no other tests or information indicates a value over 75% of the limit.

(b) An approvable plan must be submitted to the department describing how the NOx emissions will be monitored. The monitoring plan must include how the performance of periodic monitoring is sufficient to yield reliable data from relevant time periods representative of the source’s compliance with the emission rates specified in subrule (4) of this rule. Periodic monitoring must include 1 of the following:

(i) A parametric monitoring program that specifies operating parameters, and their ranges, that provides reasonable assurance each turbine's emissions are consistent with the requirements of this rule.

(ii) A predictive emissions measurement system that relies on automated data collection from instruments. If a turbine is equipped with a predictive emission monitoring system, compliance with the applicable emissions limit must be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(iii) A continuous emission monitoring system that complies with 40 CFR part 60 or part 75, both adopted by reference in R 336.1902. If a turbine is equipped with a continuous emission monitoring system, compliance with the applicable emissions limit must be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(7) A person operating a turbine subject to this rule shall obtain current information and maintain records for all requirements and exemptions in sufficient detail to determine compliance. The information and records must be made available to the department upon request. The information and records may include the following:

(a) Installation dates of the turbine.

(b) The maintenance plan.

(c) All associated maintenance records for a minimum of 5 years.

(d) Either the results of the most recent stack test, or a minimum of 5 years of all monitoring data necessary to demonstrate compliance with limits and requirements in subrule (4) of this rule, or both, as applicable.

(e) If the provisions of this rule are not applicable as allowed by subrule (3) of this rule, all information necessary to demonstrate that the equipment meets the exemption being utilized.

(8) If records are not requested by the department for any 3-year rolling period, the facility will submit a report to the department with information and records in sufficient detail to determine compliance with the limits in this rule.

R 336.1844 RACT emission limitations for miscellaneous process specific combustion sources.

Rule 844. (1) As used in this rule:

(a) "Combustion device" means an individual unit of equipment used for combustion of a fuel using a controlled flame.

(b) "Process heater" means an enclosed combustion device, or collection of combustion devices, in which the emission unit's primary purpose is to transfer heat to a process material, gas, liquid, or solid, or heat transfer material for use in a process other than to generate steam. Process heaters do not include emission units that are used for comfort, water or space heat, food preparation for on-site consumption, autoclaves, waste heat process heaters, or devices whose primary function is to control air pollution.

(2) A person is subject to this rule and shall not cause or allow the emission of NOx from the combustion of fuels in asphalt plants, process heaters, engine test cells and stands, lime kilns, or glass manufacturing units in excess of the allowable emissions, including the limitations of this rule at facilities meeting either of the following criteria:

(a) Located in the 2015 ozone nonattainment areas and either of the following:

(i) A stationary source with a potential to emit 100 tons per year or greater of NOx from all combined NOx sources on the effective date of this rule.

(ii) An emission unit installed after the effective date of this rule.

(b) Has been subject to the requirements of this rule. The requirements in this rule, at a minimum, must permanently apply regardless of a change in the attainment or maintenance status of the stationary source location or the potential to emit of the stationary source.

(3) If an exemption is utilized, all applicable requirements of R 336.1846 must be met. If the emission unit is not utilizing an exemption listed below, all provisions of this rule apply. Emission units may utilize the following exemptions from all provisions of this rule except subrule (7)(d) of this rule:

(a) Asphalt plants equal to or less than 50 MMBtu/hr.

(b) Process heaters equal to or less than 60 MMBtu/hr that do not inject ammonia or use refinery fuel gas.

(c) Process heaters equal to or less than 10 MMBtu/hr that inject ammonia.

(d) All combustion devices under 20 MMBtu/hr in a process heater that do not exceed a total of 100 MMBtu/hr when combined.

(e) Lime kilns equal to or less than 50 MMBtu/hr.

(f) Glass manufacturing furnaces equal to or less than 50 MMBtu/hr.

(g) A research or development emission unit meeting the requirements of R 336.1283.

(h) Engine test cells and stands that are testing engines rated 1200 HP or less.

(i) Air pollution control devices.

(4) Except as allowed by R 336.1845, or as required by subrule (8) of this rule, a person that generates NOx emissions from the use of hot mix asphalt plants, process heaters, engine test cells and stands, lime kilns, or glass manufacturing shall meet the following limits within table 844, as applicable, by the effective date of the rule.

TABLE 844

NOx emission limits from miscellaneous combustion sources

Process	NOx Emission limit on an hourly basis [a]
Hot Mix Asphalt Plants > 50 MMBtu/hr	
Gaseous fuels	0.15 lb/MMBtu
Distillate oil	0.20 lb/mmBtu
Residual Oil	0.27 lb/mmBtu
Process Heaters	
Gaseous fuels >60 MMBtu/hr	0.12 lb/MMBtu
Distillate Oil >60, =< 100 MMBtu/hr	0.12 lb/MMBtu
Distillate Oil > 100 MMBtu/hr	0.14 lb/MMBtu
Residual Oil >60, =< 100 MMBtu/hr	0.15 lb/MMBtu
Residual Oil > 100 MMBtu/hr	0.18 lb/MMBtu
Refinery Fuel Gas	0.18 lb/MMBtu
Any fuel > 10 MMBtu/hr utilizing ammonia injection	0.20 lb/MMBtu

Engine Test Cells/Stands Gaseous Fuel engines > 1200 HP Distillate Oil engines > 1200 HP	 0.08 lb/MMBtu 0.10 lb/MMBtu
Lime Kilns > 50 MMBtu/hr	6.0 lb/ton of lime produced
Glass Manufacturing > 50 MMBtu/hr	3.5 lb/ton of glass produced

[a] Except for alternative averaging periods as allowed in (6)(c)(ii) of this rule.

(5) A process heater installed after the effective date of the rule must utilize a low-NOx burner, equivalent technology, or better.

(6) A person subject to this rule shall demonstrate compliance by implementing and maintaining the following:

(a) Create and implement an approvable maintenance plan for the affected emission unit.

(b) To the extent practicable, maintain and operate the affected emission unit in a manner consistent with good air pollution control practice for minimizing emissions at all times, including during startup, shutdown, and malfunction. The department shall determine compliance with this requirement based on information that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, and review of operation and maintenance records.

(c) For emission units with an emission rate limit specified in subrule (4) of this rule, 1 of the following:

(i) If a performance test has not been done within the last 18 months before the effective date of this rule, the person subject to this rule shall conduct an initial performance test, acceptable to the department, within 180 days after the effective date of this rule to demonstrate compliance with the required emission rate limit, or within 30 days after startup if the unit is not operating. A performance test must then be completed every 24 months, after the date of the last test, consistent with the requirements of R 336.2004. The 24-month frequency may be increased to once every 5 years when the most recent test results are 75% of the limit and the source certifies no other tests or information indicates a value over 75% of the limit.

(ii) An approvable plan must be submitted to the department describing how the NOx emissions will be monitored. The monitoring plan must include how the performance of periodic monitoring is sufficient to yield reliable data from relevant time periods representative of the source's compliance with the emission rates specified in subrule (4) of this rule. Periodic monitoring may include the following:

(A) A parametric monitoring program that specifies operating parameters, and their ranges, that will provide reasonable assurance each emission unit's emissions are consistent with the requirements of this rule.

(B) A predictive emissions measurement system that relies on automated data collection from instruments. If an affected emission unit is equipped with a predictive emission monitoring system, compliance with the applicable emissions limit is determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(C) A continuous emission monitoring system that complies with 40 CFR part 60 or 40 CFR part 75, both adopted by reference in R 336.1902. If an affected emission unit is equipped with a continuous emission monitoring system, compliance with the applicable

emissions limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(7) A person operating an emission unit subject to this rule shall obtain current information and maintain records for all requirements and exemptions in sufficient detail to determine compliance. When requested by the department, the following information and records must be made available:

(a) Installation dates of the affected emission unit.

(b) The maintenance plan.

(c) All associated maintenance records for a minimum of 5 years.

(d) Either the results of the most recent stack test, or a minimum of 5 years of all monitoring data necessary to demonstrate compliance with limits and requirements in subrule (4) of this rule, or both as applicable.

(e) If the provisions of this rule are not applicable as allowed by subrule (3), all information necessary to demonstrate that the equipment meets the exemption being utilized.

(8) If records are not requested by the department for any 3-year rolling period, the facility will submit a report to the department with information and records in sufficient detail to determine compliance with the limits in this rule.

(9) A person that generates NOx emissions from the use of a process heater located in the 2015 ozone nonattainment area shall meet the following limits within table 844a 12 months after the effective date of a final determination by the USEPA, pursuant to section 182(c)(9) of the clean air act 42 USC 7511a, for either of the following elements of the 2015 ozone National Ambient Air Quality Standard:

(a) The USEPA makes a determination that reasonable further progress as described in Michigan's approved state implementation plan was not achieved.

(b) The USEPA makes a determination that the area failed to attain the standard by the applicable attainment date.

TABLE 844a
NOx emission limits from process heaters

Process	NOx Emission limit on an hourly basis
Process Heaters	
Gaseous fuels >60 MMBtu/hr	0.10 lb/MMBtu
Distillate Oil >60, =< 100 MMBtu/hr	0.10 lb/MMBtu
Distillate Oil > 100 MMBtu/hr	0.12 lb/MMBtu
Residual Oil >60, =< 100 MMBtu/hr	0.14 lb/MMBtu
Residual Oil > 100 MMBtu/hr	0.15 lb/MMBtu

[a] Except for alternative averaging periods as allowed in (6)(c)(ii) of this rule.

R 336.1845 RACT requirements for alternative RACT.

Rule 845. A person with an emission unit subject to the requirements in rules R 336.1841 through R 336.1844 may request approval from the department for equivalent or alternate requirements. The department may consider equivalent or alternate requirements only if the following provisions are met:

(a) A proposed plan to request an alternative RACT application must be provided to and approvable by the department within 60 days after the effective date of this rule or, for new sources, 60 days after becoming applicable or an alternative timeframe approved by the department. A proposed plan must include, but is not limited to:

(i) A general description of the alternative being requested.

(ii) The mechanism needed to obtain this alternative, either a new federally enforceable permit or order, or a revision to an existing federally enforceable permit or order.

(iii) A timeframe of when the alternative RACT application will be submitted to the department.

(b) After submission of the proposed plan, the stationary source must submit an alternative RACT application containing the following, as applicable:

(i) Reasons why the applicant is requesting an alternative requirement.

(ii) Information demonstrating why the limitation or requirement as described in R 336.1841 to R 336.1844, as applicable, is not possible to attain.

(iii) Explanation of why alternative options, such as implementation of add-on controls or modifying equipment, would not be sufficient to meet the applicable requirements in rules R 336.1841 through R 336.1844. Identification of the existing and available control technologies and demonstration of why the application of these control options is either not technologically feasible, not economically reasonable, or neither.

(iv) A document containing quantitative or qualitative analyses demonstrating that the emissions from the applicable emission unit with alternative RACT requirements shall not interfere with the ability of the nonattainment area to achieve the ozone National Ambient Air Quality Standard. This may include, but is not limited to, modeling, calculations based on throughput and control efficiency, or other quantitative evaluations to similar insignificant units.

(v) A description of actions that are being taken to reduce emissions, while pursuing the steps described in this rule, if pursuit of alternative RACT extends beyond required compliance dates.

(vi) An expected schedule of significant steps to achieving compliance with R 336.1841 to R336.1844, as applicable.

(vii) Additional information, as needed.

(b) The applicable portion of the proposed draft permit or order related to this rule will be subject to a minimum 30-day public comment period when located at a source of NOx with a potential to emit of 100 tons per year or greater on the effective date of this rule. When the proposed draft permit or order is noticed for a 30-day public comment period, a copy of the notice must also be sent to the USEPA.

(c) When a public comment period is required for a proposed draft permit or order, a public hearing during or immediately after the public comment must be offered.

(d) Upon department issuance of the legally enforceable document, the applicable portion must be sent to the USEPA, together with all of the other information that is required for the submittal of a complete state implementation plan revision request. Department approval and the legally enforceable document do not affect the federally approved state implementation plan until and unless the submitted state implementation plan revision request is formally approved by the USEPA.

(e) Implementation of the legally enforceable order of the department or permit to install must be completed according to the schedule established in the order or permit to

install as expeditiously as practicable or as described in the proposed plan for alternative RACT.

R 336.1846 RACT requirements for miscellaneous large sources at major sources of NOx.

Rule 846. (1) As used in this rule "potential NOx emissions" means theoretical potential emissions based on design capacity, maximum production, and maximum hours of operation before add-on control. Except for control, any physical or operational limitation on the emission unit's capacity, such as restrictions on hours of operation, types or amount of material combusted, stored, or processed, can limit potential NOx emissions with a legal and federally enforceable permit or order.

(2) A person responsible for a stationary source shall meet the requirements as described in subrules (4) to (7) of this rule, and the requirements will permanently apply once the source becomes subject, if all of the following criteria are met:

(a) Located in a 2015 ozone nonattainment area. Changes in the attainment or maintenance status of the stationary source location after the effective date of this rule do not change applicability for a source once subject.

(b) The stationary source has 1 or more emission units, with combined potential NOx emissions that equal 100 tons per year or more on or after the effective date of this rule, that are not subject to any RACT requirements as described in R 336.1841 through R 336.1845. Any individual emission units with actual emissions less than 5 tons per year with total combined emissions from these emission units of less than 25 tons per year does not apply to the provisions within this subrule.

(3) Instead of submitting a site-specific NOx RACT proposal, the stationary source may submit a complete permit to install application requesting a facility-wide NOx limit that would limit NOx emissions using a federally enforceable restriction or restrictions to less than 100 tons per year or a complete permit to install application for the potentially subject emission units that would limit emissions from all applicable emission units to less than 25 tons per year, before the effective date of the rule.

(4) The person responsible shall provide the department and the USEPA with the following information within 120 days after the effective date of this rule:

(a) Identification of each stationary source including individual emission units or groups of emission units at those stationary sources to which this rule applies.

(b) A determination of the total potential to emit, potential NOx emissions and the actual emissions of NOx for the most recent calendar year for each applicable NOx emission unit at the stationary source using emission testing or a calculation method approvable by the department.

(5) Within 1 year after the effective date of this rule, a person responsible shall provide to the department and the USEPA, a proposal for RACT for the stationary source. The RACT proposal must include, at a minimum, the following information:

(a) A list of each emission unit subject to the RACT requirements of this rule.

(b) The size or capacity of each affected emission unit, and the types and quantities of materials processed or produced in each emission unit, as applicable.

(c) A physical description of each emission unit and its operating characteristics.

(d) Estimates of the potential to emit and actual NOx emissions from the affected stationary source and each affected emission unit for the most recent calendar year and associated supporting documentation.

(e) A RACT analysis which meets the requirements of subrule (6), including technical and economic support documentation for each affected emission unit.

(f) A schedule for completing implementation of the RACT proposal as expeditiously as practicable, including interim dates for the issuance of purchase orders, start and completion of process, technology and control technology changes, and the completion of compliance testing, if applicable.

(g) The testing, monitoring, recordkeeping, and reporting procedures proposed to demonstrate compliance with RACT.

(h) Additional information as requested by the department that is necessary for the evaluation of the RACT proposal.

(6) The RACT analysis required under subrule (5)(e) of this rule must include:

(a) A ranking of the available control options for the affected emission unit in descending order of control effectiveness. Available control options are air pollution control technologies or techniques with a reasonable potential for application to the emission unit. Air pollution control technologies and techniques include the application of production process, or control methods that reduce NOx. The control technologies and techniques must include existing controls for the source category and technology transfer controls applied to similar source categories.

(b) An evaluation of the technical feasibility of the available control options identified in subdivision (a) of this subrule. The evaluation of technical feasibility must be based on physical, chemical, and engineering principles. A determination of technical infeasibility must identify technical difficulties which would preclude the successful use of the control option on the affected emission unit.

(c) A ranking of the technically feasible control options in descending order of overall control effectiveness for NOx emissions. The list must present the array of control options and include, at a minimum, the following information:

(i) The baseline emissions of NOx before implementation of each control option.

(ii) The estimated emission reduction potential or the estimated control efficiency of each control option.

(iii) The estimated emissions after the application of each control option.

(iv) The economic impacts and cost effectiveness of each control option.

(d) An evaluation of cost effectiveness of each control option consistent with the “EPA Air Pollution Control Cost Manual,” EPA-452/B-02-001, adopted by reference in R 336.1902. The evaluation must be conducted in accordance with the following requirements:

(i) The cost effectiveness must be evaluated in terms of dollars per ton of NOx emissions reduction.

(ii) The cost effectiveness must be calculated as the annualized cost of the control option divided by the baseline emission rate minus the control option emission rate, as shown by the following equation:

$$\text{Average cost effectiveness (\$/ton removed)} = \frac{\text{Control option total annualized cost (\$/yr)}}{\text{--}}$$

Baseline emission rate – Control option rate (tons/yr)

(iii) For purposes of this paragraph, baseline emission rate represents the maximum emissions before the implementation of the control option. The baseline emission rate must be established using either test results or approvable emission factors and historic operating data.

(7) The department shall approve, deny, or modify each RACT proposal.

(8) Upon receipt of notice of the department's approval of the RACT proposal, the stationary source shall begin implementation of the measures necessary to comply with the approved RACT proposal. Implementation of the RACT program must be completed according to the schedule established in the approved RACT proposal and as expeditiously as practicable.

(9) The department shall submit each state-issued enforceable order or permit to install with its corresponding RACT program to the USEPA for approval as a revision to the state implementation plan.

Section C

Final ~~Strike~~/**Bold** Part 8 (2023-13EQ) Rule Language

DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

AIR QUALITY DIVISION

AIR POLLUTION CONTROL

Filed with the secretary of state on

These rules become effective immediately after filing with the secretary of state unless adopted under section 33, 44, or 45a(9) of the administrative procedures act of 1969, 1969 PA 306, MCL 24.233, 24.244, or 24.245a. Rules adopted under these sections become effective 7 days after filing with the secretary of state.

(By authority conferred on the director of the department of environment, Great Lakes, and energy by sections 5503 and 5512 of the natural resources and environmental protection act, 1994 PA 451, MCL 324.5503 and 324.5512, and Executive Reorganization Order Nos. 1995-16, 2009-31, **2011-1,** and 201~~1~~**9**-1, MCL 324.99903, 324.99919, ~~and~~ 324.99921**, and 324.99923**)

R 336.1801, R 336.1802, R 336.1803, R 336.1810, and R 336.1818 of the Michigan Administrative Code are amended, and R 336.1840, R 336.1841, R 336.1842, R 336.1843, R 336.1844, R 336.1845, and R 336.1846 are added, as follows:

PART 8. EMISSION LIMITATIONS AND PROHIBITIONS - OXIDES OF NITROGEN

R 336.1801 Emission of oxides of nitrogen (NOx) from non-SIP call stationary sources.

Rule 801. (1) As used in this rule:

(a) “Btu” means a British thermal unit.

(b) "Capacity factor" means either of the following:

(i) The ratio of a unit's actual annual electric output, expressed in megawatt hour, to the unit's nameplate capacity times 8,760 hours.

(ii) The ratio of a unit's annual heat input, expressed in million Btu or equivalent units of measure, to the unit's maximum design heat input, expressed in million Btus per hour or equivalent units of measure, times 8,760 hours.

(c) “Electricity-generating utility unit” means a unit that produces electricity for sale.

(d) "Fossil fuel-fired" means the actual combustion of fossil fuel, which includes coke oven gas, alone or in combination with **another** ~~any other~~ fuel, where either of the following quantities are greater than 50% on an annual basis:

(i) Sum of the mass of fossil fuels combusted divided by the total mass of all fuels combusted.

(ii) Sum of the annual heat inputs for fossil fuels combusted divided by the total heat input for all fuels combusted. Annual heat inputs are on a Btu basis.

(e) "Low-NOx burners" means 1 of several developing combustion technologies used to minimize the formation of emissions of nitrogen oxides. -As applicable to cement

kilns, low-NOx burners means a type of cement kiln burner system designed to minimize (NOx) formation by controlling flame turbulence, delaying fuel/air mixing, and establishing fuel-rich zones for initial combusting, that for firing of solid fuel in the burning end zone of a kiln's main burner includes an indirect firing system or comparable technique for the main burner in the burning end zone of the kiln to minimize the amount of primary air supplied through the burner. In an indirect firing system, 1 air stream is used to convey pulverized fuel from the grinding equipment and at least 1 or more other air streams are used to supply primary air to the burning end zone kiln burner of the kiln with the pulverized fuel, with intermediate storage of the fuel, and necessary safety and explosion prevention systems associated with the intermediate storage of fuel.

(f) "Mid-kiln system firing" means the secondary firing in a kiln system by injecting solid fuel at an intermediate point in the kiln system using a specially designed heat injection mechanism for the purpose of decreasing NOx emissions through coal burning part of the fuel at lower temperatures and reducing conditions at the fuel injection point that may destroy some of the NOx.

(g) "Non-SIP call source" means any stationary source of NOx emissions that is not a NOx budget source subject to R 336.1802.

(h) “NOx” means oxides of nitrogen.

(i) "Ozone control period" means the period of May 1 through September 30.

(j) "Peaking unit" means an electricity-generating utility unit that has an average capacity factor of not more than 10% during the previous 3 calendar years and a capacity factor of not more than 20% in each of those calendar years.

(k) "Process heater" means any combustion equipment which is fired by a liquid fuel or a gaseous fuel, or both, and which is used to transfer heat from the combustion gases to a process fluid, superheated steam, or water.

(l) “SIP” means state implementation plan.

(m) "Unit" means a fossil fuel-fired combustion device.

(2) Except as provided in subrule (11) of this rule, any fossil fuel-fired unit that meets both of the following requirements is subject to this rule:

(a) A unit that has the potential to emit more than 25 tons of NOx each ozone control period.

(b) A unit that has a maximum rated heat input capacity of more than 250 million Btu, per hour.

(3) An owner or operator of an emission unit subject to this rule shall comply with the following provisions, as applicable:

(a) An owner or operator of a fossil fuel-fired, electricity-generating utility unit that serves a generator that has a nameplate capacity of less than 25 megawatts shall comply with the appropriate NOx emission limit in table 81 of this rule.

(b) An owner or operator of a fossil fuel-fired boiler or process heater shall meet the emission limits contained in table 81 of this rule.

(c) An owner or operator of a gas-fired boiler or process heater that fires gaseous fuel that contains more than 50% hydrogen by volume shall comply with an NOx emission limit of 0.25 pounds per million Btu heat input.

(d) An owner or operator of a stationary internal combustion engine that is subject to the provisions of this rule and has a maximum rated heat input capacity that is the heat

input at 80 degrees Fahrenheit at sea level and takes into account inlet and exhaust losses shall comply with the following NOx emission limits, as applicable:

(i) For a natural gas-fired stationary internal combustion engine - 14 grams of NOx per brake horsepower hour at rated output.

(ii) For a diesel-fired stationary internal combustion engine - 10 grams of NOx per brake horsepower hour at rated output.

(e) An owner or operator of a cement kiln that is subject to the provisions of this rule shall reduce kiln NOx emissions by any of the following methods:

(i) Low-NOx burners.

(ii) Mid-kiln system firing.

(iii) A 25% rate-based reduction of NOx from 1995 levels. Compliance with this paragraph is based on calculations showing that the emission rate, on a pounds of NOx per ton of clinker produced basis, during each compliance ozone control period, has been reduced below the 1995 ozone control period emission rate by 25%.

(f) An owner or operator of a stationary gas turbine that is subject to the provisions of this rule and which has a maximum rated heat input capacity that is the heat input at 80 degrees Fahrenheit at sea level and takes into account inlet and exhaust losses shall comply with an emission limit of 75 parts per million, dry volume, corrected to 15% oxygen, at rated capacity.

(4) The method for determining compliance with the emission limits in subrule (3) of this rule is as follows:

(a) If the emission limit is in the form of pounds of NOx per million Btu, then the unit is in compliance if the sum of the mass emissions from the unit that occurred during the ozone control period, divided by the sum of the heat input from the unit that occurred during the ozone control period, is less than or equal to the limit in subrule (3) of this rule.

(b) For an emission unit not subject to subdivision (a) of this subrule, the method for determining compliance ~~shall~~**must** be a method acceptable to the department.

(5) The owner or operator of a boiler, process heater, stationary internal combustion engine, stationary gas turbine, cement kiln, or **another** ~~any other~~ stationary emission unit that is subject to the provisions of subrule (3) of this rule shall measure NOx emissions by any of the following:

(a) Performance tests described in subrule (6) of this rule.

(b) Through the use of a continuous emission monitor in accordance with the provisions of subrule (8) of this rule.

(c) According to a schedule and using a method acceptable to the department.

(6) An owner or operator of an emission unit that measures NOx emissions by performance tests as specified in subrule (5) of this rule shall do all of the following:

(a) Conduct an initial performance test not later than 90 days after the compliance deadline. For an emission unit that is not in service ~~on or~~ after the compliance deadline, the owner or operator shall contact the department and schedule an alternate initial performance test as agreed to by the department.

(b) After the initial performance test, conduct a compliance performance test each ozone control period or according to the following schedule:

(i) After 2 consecutive ozone control periods in which the emission unit demonstrates compliance, an owner or operator shall conduct performance tests at least once every 2 years during the ozone control period.

(ii) After a total of 4 consecutive ozone control periods in which the emission unit has remained in compliance, an owner or operator shall conduct performance tests at least once every 5 years during the ozone control period.

(c) If an emission unit is not in compliance at the end of an ozone control period, then the owner or operator shall conduct a compliance performance test each ozone control period, but may elect to use the alternative schedule specified in subdivision (b) of this subrule.

(d) An owner or operator shall submit 2 copies of each compliance performance test to the department within 60 days after completing the testing. The test results must be presented and include data as requested in the department format for submittal of source emission test plans and reports. All performance test reports must be kept on file at the plant and made available to the department ~~upon~~**on** request.

(7) An owner or operator of an emission unit that is required to conduct performance testing under subrule (5) of this rule shall submit a test plan to the department, not less than 30 days before the scheduled test date. To ensure proper testing, the plan must supply the information in the department format for submittal of source emission test plans and reports. The owner or operator shall give the department a reasonable opportunity to witness the tests.

(8) An owner or operator of an emission unit that measures NOx emissions by a continuous emission monitoring system or an alternate method, as specified in subrule (5) of this rule, shall do either of the following:

(a) Use the procedures set forth in 40 CFR part 60, subpart A and appendix B, adopted by reference in R 336.1902 and comply with the quality assurance procedures in part 60, appendix F, adopted by reference in R 336.1902 or 40 CFR part 75, adopted by reference in R 336.1902 and associated appendices, as applicable and acceptable to the department.

(b) Use a previously installed continuous emission monitoring system to demonstrate compliance with this rule as long as the previously installed continuous emission monitoring system monitors NOx pursuant to other applicable federal, state, or local rules, meets the installation, testing, operation, calibration, and reporting requirements specified by those federal, state, or local rules, and is acceptable to the department.

(9) The owner or operator of an emission unit that is subject to this rule shall submit a summary report, in an acceptable format, to the department within 60 days after the end of each ozone control period. The report must include all of the following information:

(a) The date, time, magnitude of emissions, and emission rates where applicable, of the specified emission unit.

(b) If emissions or emission rates exceed the emissions or rates allowed for in the ozone control period by the applicable emission limit, the cause, if known, and any corrective action taken.

(c) The total operating time of the emission unit during the ozone control period.

(d) For continuous emission monitoring systems, system performance information ~~shall~~**must** include the date and time of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the

system repairs or adjustments. When the continuous monitoring system has not been inoperative, repaired, or adjusted, the information must be stated in the report.

(10) Table 81 reads as follows:

T**ABLE**~~able~~ 81

Boilers and process heaters with heat input capacity of 250 million Btu or more NO_x emission limitations (pounds NO_x per million Btu of heat input averaged over the ozone control period)	
Fuel type	Emission limit
Natural gas	0.20
Distillate oil	0.30
Residual oil	0.40
Coal (1) Coal spreader stoker (2) Pulverized coal fired	 0.40 0.40
Gas (other than natural gas)[1]	0.25
For units operating with a combination of gas, oil, or coal, a variable emission limit calculated as the heat input weighted average of the applicable emission limits must be used. The emission limit is determined as follows: Emission limit = a(0.20) + b(applicable oil limit) + c(applicable coal limit) + d(0.25) Where: a = Is the percentage of total heat input from natural gas b = Is the percentage of total heat input from oil c = Is the percentage of total heat input from coal d = Is the percentage of total heat input from gas (other than natural gas)	

[1] This may include a mixture of gases. In this case, natural gas may be part of the mixture.

(11) The provisions of this rule do not apply to the following emission unit or units:

(a) A unit that is subject to NOx standards ~~or a NOx federal trading programs~~ that have been promulgated in ~~a federal implementation plan under section 110(c) of the clean air act, 42 USC 7410, required under section 126 of the clean air act, 42 USC 7426, or promulgated in a federal regulation under 40 CFR part 51, part 60, or part 97.~~ **federal regulations under 40 CFR part 52 or part 60, which contain limits that are equivalent to the limits in this rule and have been approved in Michigan's state implementation plan.**

(b) A unit that is subject to **another** ~~any other~~ rule included in this part.

(c) A peaking unit. The owner or operator shall retain records of capacity for a period of 5 years demonstrating that the unit meets the definition of a peaking unit. The unit

becomes subject to the provisions of this rule on January 1 of the year following failure to meet the peaking unit definition.

(d) A stationary gas turbine that is subject to a new source performance standard contained in 40 CFR part 60, subpart GG or KKKK, adopted by reference in R 336.1902.

R 336.1802 Applicability under **the** oxides of nitrogen (NOx) budget ~~trading~~ program.

Rule 802. (1) This rule establishes the applicability for **a** NOx budget ~~units~~ **program** as described in these rules. Except as provided in subrule (2) of this rule, units that meet all of the following requirements are NOx budget units and are subject to the requirements of this rule and R 336.1810:

(a) Units that meet the definition of a NOx budget unit ~~as defined in R 336.1803(q)~~.

(b) Units that are located in the Michigan fine grid zone.

(2) A unit described in subrule (1) of this rule is not a NOx budget unit, if the unit has a federally enforceable permit that includes the following requirements**, terms, and restrictions**:

(a) A restriction on the unit to burn only natural gas or fuel oil during ozone control periods.

(b) A restriction of the unit's operation during each ozone control period by 1 of the following methods such that the unit's potential NOx mass emissions for the ozone control period are limited to 25 tons or less:

(i) By restricting the mass emissions to 25 tons or less of NOx as measured by a certified ~~CEMS~~ **continuous emission monitoring system** in accordance with 40 CFR 75.70 to 75.75, or, alternatively, 40 CFR 60.13, adopted by reference in R 336.1902.

(ii) By restricting the unit's operating hours to no more than the number calculated by dividing 25 tons of potential ~~Nox~~**NOx** mass emissions by the unit's maximum potential hourly ~~Nox~~ **NOx** mass emissions. The maximum potential hourly ~~Nox~~ **NOx** mass emissions are determined by multiplying a rate in either subparagraph (A) or (B) of this paragraph by the value in subparagraph (C) of this paragraph:

(A) The default ~~Nox~~ **NOx** emission rate in 40 CFR 75.19, table LM-2, that would otherwise be applicable assuming that the unit burns only the type of fuel, for example, only natural gas or fuel oil, that has the highest default ~~Nox~~ **NOx** emission factor of any type of fuel that the unit is allowed to burn under the fuel use restriction in subdivision (a) of this subrule.

(B) The maximum ~~Nox~~**NOx** emission rate established in accordance with 40 CFR 75.19(c)(1)(iv), which is adopted by reference in R 336.1902.

(C) The unit's maximum rated hourly heat input. The owner or operator of the unit may petition the department to use a lower value for the unit's maximum rated hourly heat input than the value as defined ~~in R 336.1803(k)~~. The department may approve the lower value if the owner or operator demonstrates that the maximum hourly heat input specified by the manufacturer or the highest observed hourly heat input, or both, are not representative, and that the lower value is representative of the unit's current capabilities because modifications have been made to the unit limiting its capacity permanently.

(iii) By restricting the amount of fuel that can be used based on total heat input by dividing 25 tons by a~~n~~ NOx mass emission rate in either subparagraph (A) or (B) of paragraph (ii) of this subdivision and multiplying by the fuel heat content using the highest default gross calorific value under **40 CFR** 75.19, table LM-5, and using a billing

fuel flow meter ~~to determine the quantity of fuel being used~~ or other fuel flow monitoring method device approved by ~~AQD~~ **the department to determine the quantity of fuel being used**. ~~Title~~ 40 CFR part 75 is adopted by reference in R 336.1902.

(c) A requirement that the owner or operator of the unit shall retain records on site for a period of 5 years. The records must show hours of operation for units with the operating hours restriction, volumes of fuel burned and maximum default gross calorific values for units with the heat input restriction, ~~CEMS~~ **continuous emission monitoring system** data for units with the ~~CEMS~~ **continuous emission monitoring system** exemption, and all other information necessary to demonstrate that requirements of the permit related to these restrictions were met.

(d) A requirement that the owner or operator of the unit shall report the unit's hours of operation, heat input, or ~~CEMS~~ **continuous emission monitoring system** measured NOx emissions to the department by November 1 of each year for which the unit is subject to the federally enforceable permit incorporating the provisions of ~~R 336.1802(2).~~ **this subrule.** If the hours of operation are required to be reported, the owner or operator shall treat any partial hour of operation as a whole hour of operation.

(3) The department shall notify the ~~United States Environmental Protection Agency,~~ **USEPA**, in writing, within 30 days **after** ~~of~~ either of the following scenarios:

(a) A unit is issued a federally enforceable permit under subrule (2) of this rule.

(b) Any of the following provisions apply to a unit's federally enforceable permit previously issued by the department under subrule (2) of this rule:

(i) The permit is revised to remove any restriction established pursuant subrule (2) of this rule.

(ii) The permit includes any restriction established pursuant to subrule (2) of this rule that is no longer applicable.

(iii) The permit conditions do not comply with any restriction.

(4) A unit ~~shall~~**must** be treated as commencing operation~~,~~ on September 30 of the ozone control period in which either of the following conditions apply:

(a) The fuel use restriction, operating hours, or emissions restriction is no longer applicable.

(b) The unit does not comply with the fuel use restriction, operating hours, or emissions restriction.

R 336.1803 Definitions **for the oxides of nitrogen (NOx) budget program.**

Rule 803. As used in R 336.1802 to R 336.~~1810~~**1818**:

(a) "Administrator" means, for purposes of complying with reporting requirements in this part, both of the following:

(i) The ~~United States Environmental Protection Agency,~~ **USEPA** for sources using 40 CFR part 75 monitoring requirements to comply.

(ii) The department ~~of environment, Great Lakes, and energy,~~ for sources using 40 CFR part 60 or alternative monitoring requirements to comply.

(b) "Benchmark apportionment" means a point of reference against which the ozone control period NOx emissions from a NOx budget source ~~affected unit~~ will be compared ~~to~~ if the state exceeds its ozone season budget of 2,209 tons.

(c) "Commence operation" means to have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion

chamber. Except as provided in R 336.1802~~(2)~~**(4)** for a unit that is a NOx budget unit under R 336.1802(1) on the date of commencement of operation, the date remains the unit's date of commencement of operation even if the unit is subsequently modified, reconstructed, or repowered. Except as provided in R 336.1802~~(2)~~**(4)**, for a unit that is not a NOx budget unit under R 336.1802(1) on the date of commencement of operation, the date the unit becomes a NOx budget unit under R 336.1802(1) is the unit's date of commencement of operation.

(d) "Continuous Emission Monitoring System" ~~(CEMS)~~ means the equipment used to sample, analyze, measure, and provide, by means of readings taken at least once every 15 minutes, using an automated data acquisition and handling system**,** ~~(~~DAHS~~)~~, a permanent record of NOx ~~emissions~~ **emission rate**, stack gas volumetric flow rate or stack gas moisture content, as applicable, in a manner consistent with 40 CFR part 75 or 40 CFR part 60, appendices B and F, as applicable.

(e) "Department" means the department of environment, Great Lakes, and energy.

(f) "Emissions" means air pollutants exhausted from a unit or source into the atmosphere, as measured, recorded, and reported to the administrator by the NOx authorized account representative **as defined in 40 CFR part 97** or responsible official.

~~(g) "EPA" means the United States environmental protection agency~~.

(~~h~~**g**) "Fossil fuel" means natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from natural gas, petroleum, or coal.

(**h**~~i~~) "Generator" means a device that produces electricity.

(~~j~~**i**) "Heat input" means, with regard to a specified period ~~to~~**of** time, the product, in million Btu/time, of the gross calorific value of the fuel, in Btu/pound, divided by 1,000,000 Btu/million Btu and multiplied by the fuel feed rate into a combustion device, in pounds of fuel/time, as measured, recorded, and reported to the administrator by the NOx authorized account representative **as defined in 40 CFR part 97** or responsible official. Heat input does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

(j) "Life-of-the-unit, firm power contractual arrangement" means a unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity and associated energy from any specified unit, and pays its proportional amount of such unit's total costs, pursuant to a contract for the duration of 1 of the following:

(i) The life of the unit.

(ii) A cumulative term of no less than 30 years, including contracts that allow an election for early termination.

(iii) A period equal to or greater than 25 years or 70% of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.

(k) "Maximum design heat input" means the ability of a unit to combust a stated maximum amount of fuel per hour, in million Btu/hour, on a steady state basis, as determined by the physical design and physical characteristics of the unit.

(l) "Maximum potential hourly heat input" means an hourly heat input, in million Btu/hour, used for reporting purposes when a unit lacks certified monitors to report heat

input for any unit that uses 40 CFR part 75 to comply with this part. If the unit intends to use 40 CFR part 75, appendix D, to report heat input, this value should be calculated, in accordance with 40 CFR part 75, using the maximum fuel flow rate and the maximum gross calorific value. If the unit intends to use a flow monitor and a diluent gas monitor, this value should be reported, in accordance with 40 CFR part 75, using the maximum potential flowrate and either the maximum carbon dioxide concentration, in CO2, or the minimum oxygen concentration, in percent O2.

(m) “Maximum rated hourly heat input” means a unit-specific maximum hourly heat input**,** ~~(~~in million Btu/hour**,**~~)~~ which is the higher of the manufacturer's maximum rated hourly heat input or the highest observed hourly heat input.

(n) "Michigan fine grid zone" means the geographical area that includes all of the following counties:

(i) Allegan.
(ii) Barry.
(iii) Bay.
(iv) Berrien.
(v) Branch.
(vi) Calhoun.
(vii) Cass.
(viii) Clinton.
(ix) Eaton.
(x) Genesee.
(xi) Gratiot.
(xii) Hillsdale.
(xiii) Ingham.
(xiv) Ionia.
(xv) Isabella.
(xvi) Jackson.
(xvii) Kalamazoo.
(xviii) Kent.
(xix) Lapeer.
(xx) Lenawee.
(xxi) Livingston.
(xxii) Macomb.
(xxiii) Mecosta.
(xxiv) Midland.
(xxv) Monroe.
(xxvi) Montcalm.
(xxvii) Muskegon.
(xxviii) Newaygo.
(xxix) Oakland.
(xxx) Oceana.
(xxxi) Ottawa.
(xxxii) Saginaw.
(xxxiii) Saint Clair.
(xxxiv) Saint Joseph.

(xxxv) Sanilac.
(xxxvi) Shiawassee.
(xxxvii) Tuscola.
(xxxviii) Van ~~b~~**B**uren.
(xxxix) Washtenaw.
(xl) Wayne.

(o) "Monitoring system" means any monitoring system, including ~~a CEMS or~~ an ~~accepted~~ **excepted** monitoring system that meets the requirements of ~~40 CFR part 60 or~~ 40 CFR part 75, **a continuous emissions monitoring system, an approvable monitoring system that meets the requirements of 40 CFR part 60,** or an alternative monitoring system that has been approved by the department.

(p) "Nameplate capacity" means the maximum electrical generating output, in Mwe, that a generator can sustain over a specified period of time when not restricted by seasonal or other deratings as measured in accordance with the United States Department of Energy standards.

(q) "NOx budget source" means any source that has 1 or more NOx budget units.

(~~q~~**r**) "NOx budget unit" means the following:

(i) For units that commenced operation before January 1, 1997, a unit that has a maximum design heat input of more than 250,000,000 Btu's per hour and that did not serve during 1995 or 1996 a generator producing electricity for sale.

(ii) For units that commenced operation ~~on or~~ after January 1, 1997, and before January 1, 1999, a unit that has a maximum design heat input of more than 250,000,000 Btu's per hour and that did not serve during 1997 or 1998 a generator producing electricity for sale.

(iii) For units that commence operation ~~on or~~ after January 1, 1999, a unit that has a maximum design heat input of more than 250,000,000 Btu's per hour and to which either of the following provisions ~~applies~~ **apply**:

(A) The unit at no time serves a generator producing electricity for sale.

(B) The unit at any time serves a generator producing electricity for sale, if ~~any such~~ **the** generator has a nameplate capacity of 25 megawatts or less and has the potential to use not more than 50% of the potential electrical output capacity of the unit.

(iv) All units listed in 40 CFR 97, subpart E, appendix B, adopted by reference in R 336.1902, in this state, except those listed that have since been decommissioned, dismantled, or permanently retired.

(v) ~~All units qualifying as a cogeneration unit and not considered a cross-state air pollution rule NOx ozone season group 2 unit as listed in 40 CFR 97.804(b), adopted by reference in R 336.1902.~~**A unit that meets both of the following:**

(A) Serves at any time a generator with a nameplate capacity greater than 25 megawatts producing electricity for sale.

(B) Qualifies for an exemption from the Cross-State Air Pollution Rule NOx Ozone Season Group 3 Trading Program as a cogeneration unit under 40 CFR 97.1004(b), adopted by reference in R 336.1902.

~~(r) "NOx budget source" means any source that has 1 or more NOx budget units.~~

(s) "Operator" means ~~any~~ **a** person that operates, controls, or supervises a NOx budget unit~~,~~ **or** a NOx budget source, and includes, but is not limited to, any holding company, utility system, or plant manager of such a unit or source.

(t) “Owner” means any of the following:

(i) Any holder of any portion of the legal or equitable title in a NOx budget unit.

(ii) Any holder of a leasehold interest in a NOx budget unit. **However, “owner” must not include a passive lessor, or a person that has an equitable interest through such lessor, whose rental payments are not based, either directly or indirectly, on the revenues or income from the NOx budget unit, unless expressly provided for in a leasehold agreement.**

(iii) Any purchaser of power from a NOx budget unit~~.~~ **under a life-of-the-unit, firm power contractual arrangement.** ~~Unless expressly provided for in a leasehold agreement, owner does not include a passive lessor, or a person that has an equitable interest through a passive lessor, whose rental payments are not based, either directly or indirectly, upon the revenues or income from the NOx budget unit.~~

~~(iv) With respect to any general account, any person that has an ownership interest with respect to the NOx allowances held in the general account and is subject to the binding agreement for the NOx authorized account representative to represent that person's ownership interest with respect to the NOx allowances.~~

(u) "Ozone control period" means the period of May 1 to September 30. ~~The term "ozone control period" replaces the term "control period" as used in 40 CFR part 96.1 to 96.88 and part 97.1 to 97.88.~~

(v) “Potential electrical output capacity” means 33% of a unit's maximum design heat input.

(w) “Receive” or “receipt of” means, when referring to the permitting authority or the administrator, to come into possession of a document, information, or correspondence, either in writing or through an authorized electronic transmission, as indicated in an official correspondence log, or by a notation made on the document, information, or correspondence, by the permitting authority or the administrator in the regular course of business.

(x) “Source” means any governmental, institutional, commercial, or industrial structure, installation, plant, building, or facility that emits or has the potential to emit any regulated air pollutant under the clean air act, 42 USC 7401 to 7671q. For purposes of section 502(c) of the clean air act, 42 USC 7661a, a source, including a source with multiple units, is considered a single facility.

(y) “Submit” or “serve” means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation, as follows:

(i) In person.

(ii) By United States Postal Service.

(iii) By other means of dispatch or transmission and delivery. Compliance with any “submission,” “service,” or “mailing” deadline is determined by the date of dispatch, transmission, or mailing and not the date of receipt.

(z) “Ton” or “tonnage” means any short ton or 2,000 pounds. For the purpose of determining the NOx emissions, total tons for an ozone control period is calculated as the sum of all recorded hourly emissions, or the tonnage equivalent of the recorded hourly emissions rates, with any remaining fraction of a ton equal to or greater than 0.50 ton deemed to equal 1 ton and any fraction of a ton less than 0.50 ton deemed to equal zero tons.

(aa) "Unit" means a fossil fuel-fired stationary boiler, combustion turbine, or combined cycle system that meets any of the following criteria:

(i) For units that commenced operation before January 1, 1996, the combustion of fossil fuel, alone or in combination with **another** ~~any other~~ fuel, where fossil fuel actually combusted comprises more than 50% of the annual heat input on a Btu basis during 1995, or, if a unit had no heat input in 1995, during the last year of operation of the unit ~~prior to~~**before** 1995.

(ii) For units that commenced operation ~~on or~~ after January 1, 1996~~,~~ and before January 1, 1997, the combustion of fossil fuel, alone or in combination with **another** ~~any other~~ fuel, where fossil fuel actually combusted comprises more than 50% of the annual heat input on a Btu basis during 1996.

(iii) For units that commence operation ~~on or~~ after January 1, 1997, either of the following apply:

(A) The ~~combination~~**combustion** of fossil fuel, alone or in ~~combustion~~**combination** with **another** ~~any other~~ fuel, where fossil fuel actually combusted comprises more than 50% of the annual heat input on a Btu basis during any year.

(B) The ~~combination~~**combustion** of fossil fuel, alone or in combination with **another** ~~any other~~ fuel, where fossil fuel is projected to comprise more than 50% of the annual heat input on a Btu basis during **a** ~~any~~ year, provided that the unit ~~shall~~**must** be fossil fuel-fired as of the date, during such year, on which the unit begins combusting fossil fuel.

(cc) "USEPA" means the United States Environmental Protection Agency.

R 336.1810 Allowance **benchmark** apportionments under **the oxides of nitrogen** (NOx) budget program.

Rule 810. (1) The department shall establish a budget program for the ozone control period for NOx budget units ~~and~~ located within the Michigan fine grid zone. Total NOx emission **benchmark** apportionments are limited to 2,209 tons~~,~~ for each ozone control period.

(2) Pursuant to R 336.1802(1), the department shall ~~apportion~~ **establish** a benchmark **apportionment** of NOx emissions for each NOx budget unit **and source** that will be used for comparison to actual NOx emissions from the NOx budget units at the source. The benchmarks will be apportioned and maintained as follows:

(a) For NOx budget units that commence operation before May 1, 2020~~, these units must have a combined budget of~~ **the sum of the benchmark apportionments will be** 1,699 tons, ~~except when the budget is modified~~ **subject to decrease because of unit retirements** as described in **subdivision (d) of this subrule.**

(b) For any new NOx budget unit commencing operation after May 1, 2020,~~ or any unit the EPA designates as a NOx SIP call subject source after May 1, 2020,~~ the department shall establish a benchmark apportionment from the new unit set-aside pool for each ozone **control period.** ~~season control apportionment year of~~ **The initial amount of the new unit set aside pool will be** 510 tons, ~~or the most current new unit set-aside pool as established~~ **subject to increase because of unit retirements as described** in **subdivision (d) of this subrule.**

(c) Benchmark apportionments for all NOx budget units and sources are maintained and made available by the department and updated annually by April 1. These benchmark

apportionments are established according to the requirements described in ~~subrules~~ **subrule**~~(2)(a), (2) (b) and (2)(d) of this rule,~~ **subdivisions (a), (b), and (d) of this subrule,** and ~~use~~ **are based on** a combination of federally enforceable permit limits, maximum nameplate capacities with an appropriate emission factor, physical limitations, and other attributes of the unit or process as applicable. ~~This budget~~ **The department** establishes a benchmark apportionment for each active NOx budget unit that is summed by source to create a NOx budget source total benchmark apportionment. Bases for the established ~~budgets~~ **benchmark apportionments** and adjustments to ~~those budgets~~ **the amount of the new unit set aside pool and the sum of the benchmark apportionments for NOx budget units that commenced operation before May 1, 2020** are included with the benchmark apportionment information that is made available.

(d) The **amount of the** new unit set~~-~~ aside pool and ~~associated apportionment budget~~ **the sum of the benchmark apportionments for NOx budget units that commenced operation before May 1, 2020** are updated as appropriate in the following ways:

(i) For any new NOx budget unit as described in ~~subrule (2)(b) of this rule,~~ **subdivision (b) of this subrule,** the department shall establish a ~~NOx emission limit for the ozone period based on federally enforceable conditions in a permit to install.~~ **benchmark apportionment for the ozone control period based on a federally enforceable NOx emission limit in a permit to install**. The department shall include appropriate monitoring, recordkeeping, and reporting requirements for ozone season NOx emissions within the issued permit.

(ii) For ~~units~~ **a NOx budget unit that commenced operation before May 1, 2020, and** that ~~are~~ **is** permanently retired, the responsible official for the NOx budget source shall do ~~one~~ **1** of the following:

(A) Notify the department's air quality division within 30 days **after** ~~of~~ the NOx budget unit's permanent retirement and not emit any NOx from the retired unit starting on the date that the unit is permanently retired. They ~~will~~ **shall** then have ~~their~~ **its** corresponding benchmark apportionment~~s~~ revoked and added to the new unit set aside pool described in ~~subrule (2)(b) of this rule~~ **subdivision (b) of this subrule** at the end of the calendar year unless the facility meets the requirements of ~~subrule (2)(d)(ii)(B) of this rule. The source total benchmark apportionment~~ ~~in the budget~~ **subparagraph (B) of this paragraph. The sum of the benchmark apportionments for all NOx budget units that commenced operation before May 1, 2020** ~~will~~ **shall** be ~~adjusted~~ **reduced** accordingly.

(B) Identify at the time of retirement of any NOx budget unit ~~installed~~ **that commenced operation** before May 1, 2020~~,~~ if the facility would like to transfer the retired units' **benchmark** apportionments to new units installed in the same ozone season~~,~~**.**

(iii) If ownership of a NOx budget unit ~~of NOx budget source~~ is transferred as described in R 336.1219, all associated unit benchmark apportionments transfer with the unit to the new owner.

(3) The owner or operator of a NOx budget unit shall monitor and record NOx emissions during the ozone control period using 1 of the following methods:

(a) In accordance with 40 CFR part 75 monitoring requirements that include, but are not limited to, data substitution procedures and monitoring and reporting requirements. The owner or operator shall report to the **US**EPA's clean air markets division the

information required by 40 CFR part 75 and the department the information required in sub~~part~~**rule** (4) of this rule. **If this approach is followed, a responsible official must be authorized to certify each submission and may delegate the responsible official's authority in accordance with 40 CFR part 97, subpart B, adopted by reference in R 336.1902.**

(b) The owner or operator may make a request to the department to monitor and record NOx emissions in accordance with methodologies acceptable under 40 CFR part 60. The owner or operator shall submit a monitoring plan to the department to be approved describing how the amount of NOx emissions in tons per ozone control period **are** ~~will be~~ determined from the 40 CFR part 60 NOx emission rate data. The owner or operator shall report to the department the information as described in the approved plan and the information in sub~~part~~**rule** (4) of this rule.

(c) The owner or operator of a NOx budget unit that is natural gas-fired and whose NOx mass emissions is 25 tons or less over each of the 3 previous ozone seasons may opt for alternative monitoring and recordkeeping. Except as provided in ~~subparagraph~~ **paragraph** (iii) of this subdivision, those choosing this option shall notify the department of their intention before the next ozone season to use the following alternative monitoring and recordkeeping methods:

(i) The hourly NOx mass emissions ~~or emission rate~~ are determined by multiplying a rate in either subparagraph (A) or (B) of this paragraph by the unit's maximum rated hourly heat input, except as allowed in subparagraph (C) of this paragraph:

(A) The default NOx emission rate of 1.5 lbs/million Btu for boilers or 0.7 lbs/million Btu for **combustion** turbines.

(B) The maximum NOx emission rate established **through stack testing** in accordance with 40 CFR 75.19(c)(1)(iv) or **a** similar **stack testing** methodology **using USEPA reference methods. If this approach is followed, ongoing stack tests must be conducted not less than once every 5 years after the date of the previous stack test for units still in operation.**

(C) The owner or operator of the NOx budget unit may petition the department to use a lower value for the unit's maximum rated hourly heat input as described in R 336.1802(2)(b)(ii)(C).

(ii) The owner or operator of the NOx budget unit shall retain records on site for a period of 5 years. The records must show, as applicable, the hourly NOx mass emissions, hours of operation, hourly volumes of fuel burned and maximum default gross calorific values, ~~CEMS~~ **continuous emission monitoring system** data, and all other information necessary to demonstrate the amount of NOx emitted during the ozone season.

(iii) Any NOx budget unit that is natural gas-fired and has less than 3 years of NOx mass emissions of 25 tons or less may petition the department to use alternative monitoring and recordkeeping as allowed in this subdivision. The petition must include all the reasons why the ~~predictive~~ **projected** NOx emissions for the next ozone season will remain at 25 tons or less. The petition must be approved by the department before using the alternative monitoring and recordkeeping methods described in this subrule.

(iv) Any NOx budget unit that is using this alternative monitoring and recordkeeping method and exceeds 25 tons for the ozone season must comply with either subdivision (a) or (b) of this subrule starting with the next ozone season. Once the unit has 3 consecutive years of data showing emissions of 25 tons or less, the owner or operator may request to

the department to use the alternative monitoring and recordkeeping methods described in this subdivision ~~of this rule~~ before the next ozone season.

(4) The owner or operator of a NOx budget unit shall submit to the department all the following information by November 1 each year:

(a) The type of each unit subject to this rule with an identifying name or number, or both.

(b) The name and address of the plant where the unit is located.

(c) The name and telephone number of the responsible official or their authorized representative responsible for demonstrating compliance with this rule.

(d) A report documenting, to the satisfaction of the department, each subject unit's hours of operation, heat input, total NOx emissions for the ozone control period and related materials that include, but are not limited to, the amount of fuel used, types of fuels burned, emission factor verified or revised by most recent stack test, and other information that was used to determine total NOx emissions for the ozone season, as applicable. For the purposes of this rule, this information must be used to determine "actual NOx emissions" for ~~affected~~ **NOx budget** units.

(e) ~~In any year~~ **Following any ozone control period** in which a unit located in an area designated as non-attainment for an ozone standard as of the end of the ozone control period exceeds its unit benchmark apportionment, a report documenting, to the satisfaction of the department, a description of reasons for the exceedance of the benchmark and actions taken to meet benchmark apportionment levels in the future.

(f) A certification by a responsible official or their authorized representative that states, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

(5) ~~Any year~~ **Following any ozone control period** in which the total actual NOx emissions of all ~~affected~~ **NOx budget** units exceed 2,209 tons, **both** of the following must occur:

(a) Each source's total actual NOx emissions ~~of affected~~ **from NOx budget** units ~~will~~ **must** be compared to ~~their~~ **its** source total benchmark apportionment as described ~~in~~ and established in subrule (2) of this rule.

(b) Within 30 days after receipt of a request by the department, each source that was determined to be exceeding ~~their~~ **its** source total benchmark apportionment must submit a report to the ~~air quality division~~ **department** that includes the following:

(i) An explanation of the circumstances that caused the source to exceed ~~their~~ **its** benchmark apportionment.

(ii) An approvable plan describing what actions will be taken to prevent recurrences. This plan must contain a timeline of all actions to take place in response to the exceedance.

(iii) ~~For those that do not already have one, sources exceeding their~~ **A source exceeding its** benchmark apportionment **that does not already have** ~~will apply for and obtain~~ a permit to install with federally enforceable NOx emission limits for the ozone season **shall apply for and obtain such a permit**.

R 336.1818 Emission limitations for **the oxides of nitrogen (NOx) SIP call for** stationary internal combustion **engines**.

Rule 818. (1) As used in this rule:

(a) "Affected engine" means a stationary internal combustion engine that is a large NOx SIP call engine, or **another** ~~any other~~ stationary internal combustion engine that is subject to NOx control under a compliance plan established under subrule (3) of this rule.

(b) "Diesel engine" means a compression ignited 2- or 4-stroke engine in which liquid fuel injected into the combustion chamber ignites when the air has been compressed to a temperature sufficiently high for auto-ignition.

(c) "Dual fuel engine" means any stationary reciprocating internal combustion engine in which a liquid fuel, typically diesel fuel, is used for compression ignition and gaseous fuel, typically natural gas, is used as the primary fuel.

(d) "Engine seasonal NOx 2007 tonnage reduction" means the year 2007 ozone control period NOx emissions reductions value**,** ~~(~~tons~~,)~~ for a large NOx SIP call engine, which is based on an NOx control efficiency of 82% for large gas-fired engines and 90% for diesel and dual-fuel engines.

(e) "Facility seasonal NOx 2007 tonnage reduction" means the total of the engine ozone control period NOx 2007 tonnage reductions attributable to all of an owner or operator's large NOx SIP call engines.

(f) "Large NOx SIP call engine" means a stationary internal combustion engine emitting more than 1 ton of NOx per average ozone control period day in 1995.

(g) "Lean-burn engine" means any 2- or 4-stroke spark-ignited engine that is not a rich-burn engine.

(h) "Ozone control period" means the period of May 1 to September 30.

(i) "Past NOx emission rate" means the emission rate of an affected engine in grams per brake horsepower-hour as determined by performance testing consistent with the requirements of 40 CFR part 60, appendix A, as adopted by reference in R 336.1902. Where the performance test data are not available, the past NOx emission rate may be determined by the department on a case-by-case basis using, for example, appropriate emission factors. For large NOx SIP call engines, the past NOx emission rate is the uncontrolled emission rate.

(j) "Projected operating hours" means the projected actual number of hours of operation per ozone control period for an affected engine.

(k) "Projected NOx emission rate" means the projected emission rate in grams per brake horsepower-hour after installation of controls on an affected engine.

(l) "Rich-burn engine" means a spark-ignited stationary internal combustion engine in which the concentration of oxygen in the exhaust stream before any dilution is 1% or less measured on a dry basis.

(m) "Stationary internal combustion engine" means an internal combustion engine of the reciprocating type that is either attached to a foundation at a facility or is designed to be capable of being carried or moved from 1 location to another and remains at a single site at a building, structure, facility, or installation for more than 12 consecutive months. An engine, or engines, that replaces an engine at a site that is intended to perform the same or similar function as the engine replaced is included in calculating the consecutive time period.

(2) The requirements of this rule apply to the owner or operator of a large NOx SIP call engine located in the Michigan fine grid zone.

(3) An owner or operator of a large NOx SIP call engine shall not operate the engine in the ozone control period unless the owner or operator complies with either the

requirements of a compliance plan that meets the following provisions or the emission rate limitations expressed as NOx listed in subdivision (b) of this subrule:

(a) Compliance plan includes the following:

(i) Must be approved by the department.

(ii) Must demonstrate enforceable emission reductions from 1 or more stationary internal combustion engines equal to or higher than the facility seasonal NOx 2007 tonnage reduction.

(iii) May cover some or all engines at an individual facility or at several facilities or at all facilities in the Michigan fine grid zone that are under control of the same owner or operator.

(iv) Must include the following items:

(A) A list of affected engines, including the engine's manufacturer, model, facility location address, and facility state registration number.

(B) The projected ozone control period hours of operation for each affected engine and supporting documentation.

(C) A description of the NOx emissions control installed, or to be installed, on each affected engine and documentation to support the projected NOx emission rates.

(D) The past and projected NOx emission rates for each affected engine in grams per brake horsepower-hour.

(E) A numerical demonstration that the emission reductions obtained from all affected engines will be equivalent to or greater than the owner or operator's facility seasonal NOx 2007 tonnage reduction, based on the difference between the past NOx emission rate and the projected NOx emission rate multiplied by the projected operating hours for each affected engine.

(F) Provisions for monitoring, reporting, and recordkeeping for each affected engine.

(v) The projected NOx emission rate in grams per brake horsepower-hour for each affected engine must be included in a federally enforceable permit.

(b) The following are NOx emission rate limitations:

(i) Rich-burn, 1.5 grams per brake horsepower per hour.

(ii) Lean-burn, 3.0 grams per brake horsepower per hour.

(iii) Diesel, 2.3 grams per brake horsepower per hour.

(iv) Dual fuel, 1.5 grams per brake horsepower per hour.

(4) An owner or operator subject to the requirements of subrule (3) of this rule shall comply with the following requirements:

(a) Each affected engine subject to this rule ~~shall~~**must** perform monitoring sufficient to yield reliable data for each ozone control period that is representative of a source's compliance with the projected NOx emission rate in subrule (3)(a) of this rule or the emission rate limit specified in subrule (3)(b) of this rule. The monitoring may include 1 of the following:

(i) Performance tests consistent with either of the applicable provisions of 40 CFR part 60 or part 75 adopted by reference in R 336.1902. An owner or operator of an affected engine shall submit a test plan to the department not less than 30 days before the scheduled test date. To ensure proper testing, the plan must supply the information in the department format for submittal of source emission test plans and reports. The owner or operator shall give the department a reasonable opportunity to witness the tests. An owner or operator shall submit 2 copies of each compliance performance test to the

department within 60 days **after** ~~of~~ completion of the testing. The test results must be presented and include data as requested in the department format for submittal of source emission test plans and reports.

(ii) A parametric monitoring program that specifies operating parameters, and their ranges, that ~~shall~~ ~~provide~~ **provides** reasonable assurance that each engine's emissions are consistent with the requirements of subrule (3) of this rule.

(iii) A predictive emissions measurement system that relies on automated data collection from instruments.

(iv) A continuous emission monitoring system that complies with the procedures set forth in 40 CFR part 60, subpart A and appendix B, and with the quality assurance procedures in **40 CFR** part 60, appendix F; or 40 CFR part 75, as applicable and acceptable to the department. An owner or operator of an emission unit ~~which~~ **that** elects this option shall submit a monitoring plan to the department not less than 30 days before installation. The owner or operator shall provide the department with a 30-day notice before a relative accuracy test audit.

(b) Recordkeeping requirements are as follows:

(i) Maintain all records necessary to demonstrate compliance with the requirements of this rule for a period of 5 calendar years at the plant at which the affected engine is located. The records ~~shall~~**must** be made available to the department and the ~~United States Environmental Protection Agency~~**USEPA** upon request.

(ii) For each engine subject to the requirements of this rule, the owner or operator shall maintain records of all of the following:

(A) Identification and location of each engine subject to the requirements of this subrule.

(B) Calendar date of record.

(C) The number of hours the unit is operated during each ozone control period compared to the projected operating hours.

(D) Type and quantity of fuel used.

(E) The results of all compliance tests.

(c) An owner or operator subject to the requirements of this rule shall submit the results of all compliance tests to the department within 60 days after the completion of the testing.

R 336.1840 Definitions for the NOx RACT rules.

Rule 840. As used in R 336.1841 to R 336.1846:

(a) "2015 ozone nonattainment areas" means collectively the nonattainment area of Berrien County, the nonattainment area of the western portion of Allegan County, and the nonattainment area of the western portion of Muskegon County.

(b) "Engine test cell" or "engine test stand" means a combustion device and its associated apparatus used to develop, characterize, and test uninstalled engines for operational and emission specifications.

(c) "Equal to or more stringent than" means the pollutant, units of measurement, time periods, operating scenarios, equipment, monitoring, and recordkeeping, as applicable, of 1 standard or requirement can be established to be at least as stringent as that of a second standard or requirement.

(d) "Gaseous fuels" means propane, natural, digester, landfill, and coke oven gas.

(e) "Liquid fuels" means residual and distillate fuel oils, and liquid biomass.

(f) "MMBtu" means million British thermal units.

(g) "NOx" means oxides of nitrogen.

(h) "RACT" means Reasonably Available Control Technology.

(i) "Solid fuels" means coal, pet coke, tire-derived material, wood, and solid biomass.

(j) "Tune-up" means adjustments made to an engine or boiler in accordance with procedures supplied by the manufacturer, vendor, or as applicable, certified, or licensed specialist to optimize the combustion efficiency or performed in accordance with 40 CFR part 63, subpart DDDDD or JJJJJJ.

(k) "Western portion of Allegan County" means the areas located in Allegan County described as Casco Township, Cheshire Township, city of Douglas, city of Holland, city of Saugatuck, Clyde Township, Fillmore Township, Ganges Township, Heath Township, Laketown Township, Lee Township, Manlius Township, Overisel Township, Saugatuck Township, and Valley Township.

(l) "Western portion of Muskegon County" means the areas located in Muskegon County described as Blue Lake Township; city of Montague; city of Muskegon; city of Muskegon Heights; city of North Muskegon; city of Roosevelt Park; city of Whitehall; Dalton Township, including village of Lakewood Club; Fruitland Township; Fruitport Township, including village of Fruitport; Laketon Township; Montague Township; Muskegon Township; city of Norton Shores; White River Township; and Whitehall Township.

R 336.1841 RACT emission limitations for engines.

Rule 841. (1) As used in this rule:

(a) "Certified engine operating in a non-certified manner" means an engine not operated and maintained according to the manufacturer's emission-related written instructions or if no manufacturer emission-related instructions were provided.

(b) "Engine" means any reciprocating internal combustion engine that uses reciprocating motion to convert heat energy into mechanical work and is not mobile. An engine test cell or engine test stand and any associated apparatus are not considered engines for the purpose of this rule.

(2) A person is subject to this rule and shall not cause or allow the emission of NOx from the combustion of fuels in an engine or its replacement unit in excess of the requirements of this rule at facilities meeting either of the following criteria:

(a) Located in the 2015 ozone nonattainment areas and either of the following:

(i) A stationary source with a potential to emit of 100 tons per year or greater of NOx from all combined NOx sources upon the effective date of this rule.

(ii) Any engine manufactured after the effective date of this rule.

(b) Has at any time been subject to the requirements of this rule or becomes subject as part of a normal maintenance program that meets the exemption requirements of R 336.1285(2)(a)(vi). The requirements in this rule, at a minimum, must permanently apply regardless of any change in the attainment or maintenance status of the stationary source location or the potential to emit of the stationary source, when the engine is located at the stationary source.

(3) Engines may utilize the following exemptions from all provisions of this rule except subrule (6)(d). If an exemption is utilized, all applicable requirements of R 336.1846 must be met. All provisions of this rule apply if the engine is not utilizing an exemption listed below:

(a) Engines less than 300 horsepower, HP.

(b) Emergency engines as described in 40 CFR 63.6640(f) and 63.6675.

(c) Engines subject to federal regulations under 40 CFR part 60, 40 CFR part 61, or 40 CFR part 63, if the applicable regulations are included in the SIP and have equivalent standards established to be equal to or more stringent than the requirements and limits of subrule (4) of this rule.

(d) Engines used for research and development.

(e) Engines with a federally enforceable limit of 100 hours per 12-month rolling time period.

(f) Black start engines whose only purpose is to start up combustion turbines and all associated equipment.

(4) Except as allowed by R 336.1845 or as required by subrule (7) of this rule, a person that generates NOx emissions from the use of an engine shall meet the following limits within table 841 on and after the effective date of this rule, as applicable:

TABLE 841
NOx emission limits for internal combustion engines.

Engine type	Grams of NOx per brake horsepower-hour
Any engine from 300 HP to 500 HP	N/A
Compression ignition Greater than 500 HP	3
Spark ignition, natural gas burning engines 2 stroke greater than 500 HP 4 stroke from 500 HP to 1000 HP 4 stroke greater than 1000 HP	 3 3 1.5
Spark ignition greater than 500 HP using gaseous fuels other than natural gas	3

(5) Compliance and monitoring with this rule must be determined using 1 of the following methods:

(a) Maintain engine certification according to procedures specified in 40 CFR part 60, subpart IIII, JJJJ, or ZZZZ, as applicable, for the same model year which includes, but is not limited to:

(i) Operate and maintain the certified engine and, if applicable, control device according to the manufacturer's emission-related written instructions.

(ii) Use diesel fuel with a sulfur content not to exceed 15 parts per million or natural gas, as applicable.

(b) For a non-certified engine or a certified engine operating in a non-certified manner, a person subject to this rule shall meet the following requirements:

(i) Create and implement an approvable maintenance plan for the engine. The plan must contain, at a minimum, the maintenance requirements of 40 CFR part 63, subpart ZZZZ, which includes, among other requirements, the conditions of inspection, the frequency of inspections, operating parameters to be monitored and their normal operating ranges, major replacement parts that must be maintained in inventory and a description of corrective procedures or operational changes that must be taken in the event of a malfunction or failure to comply with applicable emission limits.

(ii) To the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions at all times, including during startup, shutdown, and malfunction. The department shall determine compliance with this requirement based on information that may include, but is not limited to, monitoring results and review of operation and maintenance procedures and records.

(iii) For emission units subject to an emission rate limit specified in subrule (4) of this rule, compliance must be determined by 1 of the following:

(A) If a performance test has not been done within the last 18 months before the effective date of this rule, the person subject to this rule shall conduct an initial performance test, acceptable to the department, to demonstrate the required emission rate limit within 180 days after the effective date of this rule, or within 30 days after startup if the unit is not operating. An acceptable performance test must then be completed every 24 months, from the date of the last test, consistent with the requirements of R 336.2004. The 24-month frequency may be increased to once every 5 years when the most recent test results are 75% of the limit and the source certifies no other tests or information indicates a value over 75% of the limit.

(B) The person subject to this rule shall submit to the department for approval a monitoring plan describing how the NOx emissions shall be monitored. The monitoring plan must include how the performance of periodic monitoring is sufficient to yield reliable data from relevant time periods representative of the source's compliance with the emission rates specified in subrule (4) of this rule. The periodic monitoring may include the following:

(I) Performance test results consistent with the requirements of R 336.2004, or portable monitors using ASTM D6522, adopted by reference in R 336.1902. The protocol must be submitted as required under R 336.2001.

(II) A parametric monitoring program that specifies operating parameters and ranges providing reasonable assurance that each engine's emissions are consistent with the requirements of this rule.

(III) A predictive emissions measurement system that relies on automated data collection from instruments.

(IV) A continuous emission monitoring system that complies with 40 CFR part 60 or part 75, both adopted by reference in R 336.1902.

(6) A person subject to this rule shall obtain current information and maintain records for all requirements or exemptions in sufficient detail to determine compliance. The information and records must be made available to the department upon request. The information and records must, at a minimum, include the following:

(a) The installation date of the engine.

(b) For non-certified engines or certified engines operating in a non-certified manner, the following:

(i) The maintenance plan.

(ii) All associated maintenance records for a minimum of 5 years.

(iii) Either the results of the most recent stack test or a minimum of 5 years of all monitoring data necessary to demonstrate compliance with the limits and requirements in subrule (4) of this rule, or both, as applicable.

(iv) The manufacture date, if available.

(c) For certified engines, documentation from the manufacturer that the engine is certified to meet the emission standards and the manufacture date.

(d) If the provisions of this rule are not applicable as allowed by subrule (3), all information necessary to demonstrate that the equipment meets the exemption being utilized.

(7) If records are not requested by the department for any 3-year rolling period, the facility will submit a report to the department with information and records in sufficient detail to determine compliance with the limits in this rule.

(8) A person that generates NOx emissions from the use of an engine located in the 2015 ozone nonattainment area shall meet the following limits within table 841a 12 months after the effective date of a final determination by the USEPA, under section 182(c)(9) of the clean air act, 42 USC 7511a, for either of the following elements of the 2015 ozone National Ambient Air Quality Standard:

(a) The USEPA makes a determination that reasonable further progress as described in Michigan's approved state implementation plan was not achieved.

(b) The USEPA makes a determination that the area failed to attain the standard by the applicable attainment date.

TABLE 841a
NOx emission limits for internal combustion engines.

Engine type	Grams of NOx per brake horsepower-hour
Compression Ignition	
Greater than 500 HP	**2.5**
Spark ignition, natural gas burning engines	
2 stroke greater than 500 HP	**2.5**
4 stroke from 500 HP to 1000 HP	**2.5**
4 stroke greater than 1000 HP	**1.0**
Spark Ignition greater than 500 HP using landfill, digester, or other gaseous fuels	**2.5**

R 336.1842 RACT emission limitations for boilers.

Rule 842. (1) As used in this rule:

(a) "Boiler" means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water.

(b) "Limited use boiler" means a boiler that burns an amount of solid, liquid, or gaseous fuels and has a federally enforceable annual capacity factor of no more than 10%.

(2) A person shall not cause or allow the emission of NOx from the combustion of fuels in boilers in excess of the requirements of this rule at facilities meeting either of the following criteria:

(a) Located in the 2015 ozone nonattainment areas and either of the following:

(i) A stationary source with a potential to emit 100 tons per year or greater of NOx from all combined NOx sources upon the effective date of this rule.

(ii) A emission unit installed after the effective date of this rule.

(b) Has at any time been subject to the requirements of this rule. The requirements in this rule, at a minimum, must permanently apply regardless of any change in the attainment or maintenance status of the stationary source location or the potential to emit of the stationary source.

(3) If an exemption is utilized, all applicable requirements of R 336.1846 must be met. If the boiler is not utilizing an exemption listed below, all provisions of this rule apply. Boilers may utilize the following exemptions from all provisions of this rule except subrule (8)(d):

(a) Boilers with a heat input capacity rating of less than 20 MMBtu/hr.

(b) Boilers subject to federal regulations under 40 CFR part 60, part 61, or part 63 if the applicable regulations are included in the state implementation plan and have equivalent standards established to be equal to or more stringent than the requirements and limits of subrule (4) of this rule.

(c) Limited use boilers.

(4) Except as allowed under R 336.1845, or as required by subrule (9) of this rule, a person that generates NOx emissions from the use of a subject boiler shall meet the following provisions on and after the effective date of this rule, as applicable:

(a) The following NOx limits within table 842:

TABLE 842
NOx emission limits for boilers

Fuel Type	Lbs of NOx per million Btu of heat input on hourly basis [a]
All boilers: > 20 MMBTU/hr =< 50 MMBtu/hr	N/A
Gaseous fuels: > 50 MMBtu/hr	0.10
Distillate Oil: > 50 MMBtu/hr	0.12
Residual Oil: > 50 MMBtu/hr	0.25
Solid fuels: > 50 MMBtu/hr, < 100 MMBtu	0.35
Solid fuels: => 100 MMBtu	0.25

[a] Except for alternative averaging periods as allowed in subrule (7)(b)of this rule.

(b) A boiler installed after the effective date of this rule must utilize a low NOx burner, equivalent technology, or better technology.

(c) For emission units operating with a combination of gas, oil, or other fuels, a variable emission limit calculated as the heat input weighted average of the

applicable emission limits must be used. The emission limit must be determined as follows:

$$\textbf{Emission limit} = \sum_{i=1}^{n}(Pi)(Li)$$

Where:
P*i* = Percentage of total heat input from fuel listed in table 842 on a 24-hr basis
L*i* = Applicable limit for fuel listed in table 842
n = Number of different fuel types

(5) The person subject to this rule shall conduct a tune-up of each boiler at the following frequency:

(a) For a boiler subject to the tune-up requirements of 40 CFR part 63, subpart DDDDD, JJJJJJ, and UUUUU adopted by reference in R 336.1902, tune-ups must be conducted in the manner and frequency as prescribed in that rule.

(b) All boilers not described in subrule (5)(a) must undergo a tune-up following the requirements in subrule (6) at the frequency indicated in table 842a.

TABLE 842a
Boiler tune-up frequency by emission unit type.

Boiler Type	Frequency of tune-up
Natural gas-fired or equipped with an oxygen analyzer system	Every 5 years but no more than 61 months after the last tune-up
All other fuels	Once every year but no longer than 13 months after the last tune-up

(6) For boilers that are subject to subrule (5)(b) of this rule, the person subject to this rule shall meet the following tune-up related requirements on and after the effective date of this rule, as applicable:

(a) Create and implement a plan for the boiler that is approvable by the department. At a minimum, this plan must address the following details regarding tune-ups and denote the frequency these activities shall occur:

(i) Inspection of the burner, and cleaning or replacement of any components of the burner as necessary.

(ii) Inspection of the flame pattern and adjustments of the burner as necessary to optimize the flame pattern. The adjustment must be consistent with the manufacturer's specifications, if available.

(iii) Inspection of the system controlling the air-to-fuel ratio, as applicable, and confirmation that it is correctly calibrated and functioning properly.

(iv) Optimization of total emissions of NOx and carbon monoxide, CO. This should be consistent with the manufacturer's specifications, if available, and with any NOx requirement to which the emission unit is subject.

(v) Measurement of the concentrations in the effluent stream of CO in parts per million by volume, and oxygen in volume percent, before and after the adjustments are made. Measurements may be on either a dry or wet basis, as long as it is the

same basis before and after the adjustments are made. Measurements may also be taken using a properly operated and maintained portable CO analyzer.

(vi) If the emission unit is shutdown on the required date for tune-up activities, the tune-up must be conducted as soon as practicable, but no longer than 30 days after startup.

(b) To the extent practicable, maintain and operate the boiler in a manner consistent with good air pollution control practice for minimizing emissions at all times including during startup, shutdown, and malfunction. Determination of whether such operation and maintenance procedures are being used is based on information available to the department that may include, but is not limited to, monitoring results and review of operation and maintenance procedures and records.

(7) For boilers subject to an emission rate limit specified in subrule (4) of this rule, compliance must be determined by using 1 of the following:

(a) If a performance test has not been done within the last 18 months before the effective date of this rule, the person subject to this rule shall conduct an initial performance test, acceptable to the department, within 180 days after the effective date of this rule to demonstrate compliance with the required emission rate limit, or within 30 days after startup if the unit is not operating. An acceptable performance test must then be completed every 24 months, after the date of the last test, consistent with the requirements of R 336.2004. A performance test that determines that the emission unit complies with the limit in table 842 must be presumed to comply with this limit as long as the emission unit maintains regularly scheduled tune-ups required in subrule (5) of this rule until the next performance test is conducted. The 24-month frequency may be increased to once every 5 years when the most recent test results are 75% of the limit and the source certifies no other tests or information indicates a value over 75% of the limit.

(b) An approvable plan must be submitted to the department describing how the NOx emissions are monitored. The monitoring plan must include the performance of periodic monitoring that is sufficient to yield reliable data from relevant time periods representative of the source's compliance with the emission rates specified in subrule (4) of this rule. Periodic monitoring may include the following:

(i) A parametric monitoring program that specifies operating parameters, and their ranges, that will provide reasonable assurance that each boiler's emissions are consistent with the requirements of this rule.

(ii) A predictive emissions measurement system that relies on automated data collection from instruments. If a boiler is equipped with a predictive emission monitoring system, then compliance with the applicable emissions limit must be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(iii) A continuous emission monitoring system that complies with 40 CFR part 60 or part 75, both adopted by reference in R 336.1902. If a boiler is equipped with a continuous emission monitoring system, compliance with the applicable emissions limit must be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(8) A person operating a boiler subject to this rule shall obtain current information and maintain records for all requirements or exemptions in sufficient detail to determine compliance. The information and records must be made available to the department upon request. Examples of acceptable information and records include, but are not limited to the following:

(a) Installation dates of the boiler.

(b) Records of tune-ups and related inspections conducted in accordance with subrule (5) of this rule and all associated records for a minimum of 5 years.

(c) Either the results of the most recent stack test, or a minimum of 5 years of all monitoring data necessary to demonstrate compliance with limits and requirements in subrule (4) of this rule, or both, as applicable.

(d) If the provisions of this rule are not applicable as allowed by subrule (3) of this rule, all information necessary to demonstrate that the equipment meets the exemption being utilized.

(9) If records are not requested by the department for any 3-year rolling period, the facility will submit a report to the department with information and records in sufficient detail to determine compliance with the limits in this rule.

(10) A person that generates NOx emissions from the use of a boiler located in the 2015 ozone nonattainment area shall meet the following limits within table 842b 12 months after the effective date of a final determination by the USEPA, pursuant to section 182(c)(9) of the clean air act 42 USC 7511a, for either of the following elements of the 2015 ozone National Ambient Air Quality Standard:

(a) The USEPA issues a determination that reasonable further progress as described in Michigan's approved state implementation plan was not achieved.

(b) The USEPA makes a determination that the area failed to attain the standard by the applicable attainment date.

TABLE 842b
NOx emission limits for boilers

Fuel Type	Lbs of NOx per million Btu of heat input on hourly basis [a]
All boilers > 20 MMBTU/hr =< 50 MMBtu/hr	N/A
Gaseous fuels; > 50 MMBtu/hr	0.08
Distillate Oil; > 50 MMBtu/hr	0.10
Residual Oil ; > 50 MMBtu/hr	0.20
Solid fuels; > 50 MMBtu/hr , < 100 MMBtu	0.30
Solid fuels; => 100 MMBtu	0.20

[a] Except for alternative averaging periods as allowed in subrule (7)(b) of this rule.

R 336.1843 RACT emission limitations for combustion turbines.

Rule 843. (1) As used in this rule, "emergency turbines" means turbines used in emergency situations to produce power for critical networks or equipment when electric power from the local utility is interrupted, to pump water in the case of fire or flood or required maintenance checks and readiness testing.

(2) A person is subject to this rule and shall not cause or allow the emission of NOx from the combustion of fuels in turbines in excess of the requirements of this rule at facilities meeting either of the following criteria:

(a) Located in the 2015 ozone nonattainment areas and either of the following:

(i) A stationary source with a potential to emit of 100 tons per year or greater of NOx from all combined NOx sources upon the effective date of this rule.

(ii) An emission unit installed after the effective date of this rule.

(b) Has been subject to the requirements of this rule. The requirements in this rule, at a minimum, must permanently apply regardless of a change in the attainment or maintenance status of the stationary source location or the potential to emit of the stationary source.

(3)If an exemption is utilized, all applicable requirements of R 336.1846 must be met. If the turbine is not utilizing an exemption listed below, all provisions of this rule apply. Turbines may utilize the following exemptions from all provisions of this rule except subrule (7)(d) of this rule:

(a) Turbines subject to federal regulations under 40 CFR part 60, part 61, or part 63, or other federally enforceable conditions if the applicable regulations are included in the state implementation plan and have equivalent standards established to be equal to or more stringent than the requirements and limits of subrule (4) of this rule.

(b) Turbines that are rated at less than 30 MMBtu/hr.

(c) Emergency turbines.

(4) Except as allowed by R 336.1845, a person that generates NOx emissions from the use of a turbine must meet the following:

(a) The limits within table 843 by the effective date of this rule:

TABLE 843
NOx emission limits by turbine and fuel type

Turbine type and fuel	Parts per million (volume, dry, corrected to 15% oxygen on an hourly basis) [a]
Gaseous fuel fired	
Between 30 and 50 MMBtu/hr	**150**
50 MMBtu/hr and greater	**25**
Liquid fuel fired	
Between 30 and 50 MMBtu/hr	**200**
50 MMBtu/hr and greater	**65**

[a] Except for alternative averaging periods as allowed in subrule (6)(b) of this rule.

(b) For emission units operating with a combination of gaseous and liquid fuels, a variable emission limit calculated as the concentration average of the applicable emission limits, as described in R 336.1842(4)(c) must be used.

(5) A person subject to this rule shall demonstrate compliance by implementing and maintaining the following:

(a) Create and implement an approvable maintenance plan for the turbine.

(b) To the extent practicable, maintain and operate the turbine in a manner consistent with good air pollution control practice for minimizing emissions at all times including during startup, shutdown, and malfunction. The department shall determine compliance with this requirement based on information that may include, but is not limited to, monitoring results and review of operation and maintenance procedures and records.

(6) For turbines subject to the emission rate limit specified in subrule (4) of this rule, compliance must be determined by using 1 of the following:

(a) If a performance test has not been done within the last 18 months before the effective date of this rule, the person subject to this rule shall conduct an initial performance test, acceptable to the department, within 180 days after the effective date of this rule to demonstrate compliance with the required emission rate limit, or within 30 days after startup if the unit is not operating. A performance test must then be completed every 24 months, after the date of the last test, consistent with the requirements of R 336.2004. The 24-month frequency may be increased to once every 5 years when the most recent test results are 75% of the limit and the source certifies no other tests or information indicates a value over 75% of the limit.

(b) An approvable plan must be submitted to the department describing how the NOx emissions will be monitored. The monitoring plan must include how the performance of periodic monitoring is sufficient to yield reliable data from relevant time periods representative of the source's compliance with the emission rates specified in subrule (4) of this rule. Periodic monitoring must include 1 of the following:

(i) A parametric monitoring program that specifies operating parameters, and their ranges, that provides reasonable assurance each turbine's emissions are consistent with the requirements of this rule.

(ii) A predictive emissions measurement system that relies on automated data collection from instruments. If a turbine is equipped with a predictive emission monitoring system, compliance with the applicable emissions limit must be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(iii) A continuous emission monitoring system that complies with 40 CFR part 60 or part 75, both adopted by reference in R 336.1902. If a turbine is equipped with a continuous emission monitoring system, compliance with the applicable emissions limit must be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(7) A person operating a turbine subject to this rule shall obtain current information and maintain records for all requirements and exemptions in sufficient detail to determine compliance. The information and records must be made available to the department upon request. The information and records may include the following:

(a) Installation dates of the turbine.

(b) The maintenance plan.

(c) All associated maintenance records for a minimum of 5 years.

(d) Either the results of the most recent stack test, or a minimum of 5 years of all monitoring data necessary to demonstrate compliance with limits and requirements in subrule (4) of this rule, or both, as applicable.

(e) If the provisions of this rule are not applicable as allowed by subrule (3) of this rule, all information necessary to demonstrate that the equipment meets the exemption being utilized.

(8) If records are not requested by the department for any 3-year rolling period, the facility will submit a report to the department with information and records in sufficient detail to determine compliance with the limits in this rule.

R 336.1844 RACT emission limitations for miscellaneous process specific combustion sources.

Rule 844. (1) As used in this rule:

(a) "Combustion device" means an individual unit of equipment used for combustion of a fuel using a controlled flame.

(b) "Process heater" means an enclosed combustion device, or collection of combustion devices, in which the emission unit's primary purpose is to transfer heat to a process material, gas, liquid, or solid, or heat transfer material for use in a process other than to generate steam. Process heaters do not include emission units that are used for comfort, water or space heat, food preparation for on-site consumption, autoclaves, waste heat process heaters, or devices whose primary function is to control air pollution.

(2) A person is subject to this rule and shall not cause or allow the emission of NOx from the combustion of fuels in asphalt plants, process heaters, engine test cells and stands, lime kilns, or glass manufacturing units in excess of the allowable emissions, including the limitations of this rule at facilities meeting either of the following criteria:

(a) Located in the 2015 ozone nonattainment areas and either of the following:

(i) A stationary source with a potential to emit 100 tons per year or greater of NOx from all combined NOx sources on the effective date of this rule.

(ii) An emission unit installed after the effective date of this rule.

(b) Has been subject to the requirements of this rule. The requirements in this rule, at a minimum, must permanently apply regardless of a change in the attainment or maintenance status of the stationary source location or the potential to emit of the stationary source.

(3) If an exemption is utilized, all applicable requirements of R 336.1846 must be met. If the emission unit is not utilizing an exemption listed below, all provisions of this rule apply. Emission units may utilize the following exemptions from all provisions of this rule except subrule (7)(d) of this rule:

(a) Asphalt plants equal to or less than 50 MMBtu/hr.

(b) Process heaters equal to or less than 60 MMBtu/hr that do not inject ammonia or use refinery fuel gas.

(c) Process heaters equal to or less than 10 MMBtu/hr that inject ammonia.

(d) All combustion devices under 20 MMBtu/hr in a process heater that do not exceed a total of 100 MMBtu/hr when combined.

(e) Lime kilns equal to or less than 50 MMBtu/hr.

(f) Glass manufacturing furnaces equal to or less than 50 MMBtu/hr.

(g) A research or development emission unit meeting the requirements of R 336.1283.

(h) Engine test cells and stands that are testing engines rated 1200 HP or less.

(i) Air pollution control devices.

(4) Except as allowed by R 336.1845, or as required by subrule (8) of this rule, a person that generates NOx emissions from the use of hot mix asphalt plants, process heaters, engine test cells and stands, lime kilns, or glass manufacturing shall meet the following limits within table 844, as applicable, by the effective date of the rule.

TABLE 844
NOx emission limits from miscellaneous combustion sources

Process	NOx Emission limit on an hourly basis [a]
Hot Mix Asphalt Plants > 50 MMBtu/hr	
Gaseous fuels	**0.15 lb/MMBtu**
Distillate oil	**0.20 lb/mmBtu**
Residual Oil	**0.27 lb/mmBtu**
Process Heaters	
Gaseous fuels >60 MMBtu/hr	**0.12 lb/MMBtu**
Distillate Oil >60, =< 100 MMBtu/hr	**0.12 lb/MMBtu**
Distillate Oil > 100 MMBtu/hr	**0.14 lb/MMBtu**
Residual Oil >60, =< 100 MMBtu/hr	**0.15 lb/MMBtu**
Residual Oil > 100 MMBtu/hr	**0.18 lb/MMBtu**
Refinery Fuel Gas	**0.18 lb/MMBtu**
Any fuel > 10 MMBtu/hr utilizing ammonia injection	**0.20 lb/MMBtu**
Engine Test Cells/Stands	
Gaseous Fuel engines > 1200 HP	**0.08 lb/MMBtu**
Distillate Oil engines > 1200 HP	**0.10 lb/MMBtu**
Lime Kilns > 50 MMBtu/hr	**6.0 lb/ton of lime produced**
Glass Manufacturing > 50 MMBtu/hr	**3.5 lb/ton of glass produced**

[a] Except for alternative averaging periods as allowed in (6)(c)(ii) of this rule.

(5) A process heater installed after the effective date of the rule must utilize a low-NOx burner, equivalent technology, or better.

(6) A person subject to this rule shall demonstrate compliance by implementing and maintaining the following:

(a) Create and implement an approvable maintenance plan for the affected emission unit.

(b) To the extent practicable, maintain and operate the affected emission unit in a manner consistent with good air pollution control practice for minimizing emissions at all times, including during startup, shutdown, and malfunction. The department shall determine compliance with this requirement based on information that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, and review of operation and maintenance records.

(c) For emission units with an emission rate limit specified in subrule (4) of this rule, 1 of the following:

(i) If a performance test has not been done within the last 18 months before the effective date of this rule, the person subject to this rule shall conduct an initial performance test, acceptable to the department, within 180 days after the effective date of this rule to demonstrate compliance with the required emission rate limit, or within 30 days after startup if the unit is not operating. A performance test must then be completed every 24 months, after the date of the last test, consistent with the requirements of R 336.2004. The 24-month frequency may be increased to once every 5 years when the most recent test results are 75% of the limit and the source certifies no other tests or information indicates a value over 75% of the limit.

(ii) An approvable plan must be submitted to the department describing how the NOx emissions will be monitored. The monitoring plan must include how the performance of periodic monitoring is sufficient to yield reliable data from relevant time periods representative of the source's compliance with the emission rates specified in subrule (4) of this rule. Periodic monitoring may include the following:

(A) A parametric monitoring program that specifies operating parameters, and their ranges, that will provide reasonable assurance each emission unit's emissions are consistent with the requirements of this rule.

(B) A predictive emissions measurement system that relies on automated data collection from instruments. If an affected emission unit is equipped with a predictive emission monitoring system, compliance with the applicable emissions limit is determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(C) A continuous emission monitoring system that complies with 40 CFR part 60 or 40 CFR part 75, both adopted by reference in R 336.1902. If an affected emission unit is equipped with a continuous emission monitoring system, compliance with the applicable emissions limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates.

(7) A person operating an emission unit subject to this rule shall obtain current information and maintain records for all requirements and exemptions in sufficient detail to determine compliance. When requested by the department, the following information and records must be made available:

(a) Installation dates of the affected emission unit.

(b) The maintenance plan.

(c) All associated maintenance records for a minimum of 5 years.

(d) Either the results of the most recent stack test, or a minimum of 5 years of all monitoring data necessary to demonstrate compliance with limits and requirements in subrule (4) of this rule, or both as applicable.

(e) If the provisions of this rule are not applicable as allowed by subrule (3), all information necessary to demonstrate that the equipment meets the exemption being utilized.

(8) If records are not requested by the department for any 3-year rolling period, the facility will submit a report to the department with information and records in sufficient detail to determine compliance with the limits in this rule.

(9) A person that generates NOx emissions from the use of a process heater located in the 2015 ozone nonattainment area shall meet the following limits within table 844a 12 months after the effective date of a final determination by the USEPA, pursuant to section 182(c)(9) of the clean air act 42 USC 7511a, for either of the following elements of the 2015 ozone National Ambient Air Quality Standard:

(a) The USEPA makes a determination that reasonable further progress as described in Michigan's approved state implementation plan was not achieved.

(b) The USEPA makes a determination that the area failed to attain the standard by the applicable attainment date.

TABLE 844a
NOx emission limits from process heaters

Process	NOx Emission limit on an hourly basis
Process Heaters	
Gaseous fuels >60 MMBtu/hr	**0.10 lb/MMBtu**
Distillate Oil >60, =< 100 MMBtu/hr	**0.10 lb/MMBtu**
Distillate Oil > 100 MMBtu/hr	**0.12 lb/MMBtu**
Residual Oil >60, =< 100 MMBtu/hr	**0.14 lb/MMBtu**
Residual Oil > 100 MMBtu/hr	**0.15 lb/MMBtu**

[a] Except for alternative averaging periods as allowed in (6)(c)(ii) of this rule.

R 336.1845 RACT requirements for alternative RACT.

Rule 845. A person with an emission unit subject to the requirements in rules R 336.1841 through R 336.1844 may request approval from the department for equivalent or alternate requirements. The department may consider equivalent or alternate requirements only if the following provisions are met:

(a) A proposed plan to request an alternative RACT application must be provided to and approvable by the department within 60 days after the effective date of this rule or, for new sources, 60 days after becoming applicable or an alternative timeframe approved by the department. A proposed plan must include, but is not limited to:

(i) A general description of the alternative being requested.

(ii) The mechanism needed to obtain this alternative, either a new federally enforceable permit or order, or a revision to an existing federally enforceable permit or order.

(iii) A timeframe of when the alternative RACT application will be submitted to the department.

(b) After submission of the proposed plan, the stationary source must submit an alternative RACT application containing the following, as applicable:

(i) Reasons why the applicant is requesting an alternative requirement.

(ii) Information demonstrating why the limitation or requirement as described in R 336.1841 to R 336.1844, as applicable, is not possible to attain.

(iii) Explanation of why alternative options, such as implementation of add-on controls or modifying equipment, would not be sufficient to meet the applicable requirements in rules R 336.1841 through R 336.1844. Identification of the existing

and available control technologies and demonstration of why the application of these control options is either not technologically feasible, not economically reasonable, or neither.

(iv) A document containing quantitative or qualitative analyses demonstrating that the emissions from the applicable emission unit with alternative RACT requirements shall not interfere with the ability of the nonattainment area to achieve the ozone National Ambient Air Quality Standard. This may include, but is not limited to, modeling, calculations based on throughput and control efficiency, or other quantitative evaluations to similar insignificant units.

(v) A description of actions that are being taken to reduce emissions, while pursuing the steps described in this rule, if pursuit of alternative RACT extends beyond required compliance dates.

(vi) An expected schedule of significant steps to achieving compliance with R 336.1841 to R336.1844, as applicable.

(vii) Additional information, as needed.

(c) The applicable portion of the proposed draft permit or order related to this rule will be subject to a minimum 30-day public comment period when located at a source of NOx with a potential to emit of 100 tons per year or greater on the effective date of this rule. When the proposed draft permit or order is noticed for a 30-day public comment period, a copy of the notice must also be sent to the USEPA.

(d) When a public comment period is required for a proposed draft permit or order, a public hearing during or immediately after the public comment must be offered.

(e) Upon department issuance of the legally enforceable document, the applicable portion must be sent to the USEPA, together with all of the other information that is required for the submittal of a complete state implementation plan revision request. Department approval and the legally enforceable document do not affect the federally approved state implementation plan until and unless the submitted state implementation plan revision request is formally approved by the USEPA.

(f) Implementation of the legally enforceable order of the department or permit to install must be completed according to the schedule established in the order or permit to install as expeditiously as practicable or as described in the proposed plan for alternative RACT.

R 336.1846 RACT requirements for miscellaneous large sources at major sources of NOx.

Rule 846. (1) As used in this rule "potential NOx emissions" means theoretical potential emissions based on design capacity, maximum production, and maximum hours of operation before add-on control. Except for control, any physical or operational limitation on the emission unit's capacity, such as restrictions on hours of operation, types or amount of material combusted, stored, or processed, can limit potential NOx emissions with a legal and federally enforceable permit or order.

(2) A person responsible for a stationary source shall meet the requirements as described in subrules (4) to (7) of this rule, and the requirements will permanently apply once the stationary source becomes subject, if all of the following criteria are met:

(a) Located in a 2015 ozone nonattainment area. Changes in the attainment or maintenance status of the stationary source location after the effective date of this rule do not change applicability for a source once subject.

(b) The stationary source has 1 or more emission units, with combined potential NOx emissions that equal 100 tons per year or more on or after the effective date of this rule, that are not subject to any RACT requirements as described in R 336.1841 through R 336.1845. Any individual emission units with actual emissions less than 5 tons per year with total combined emissions from these emission units of less than 25 tons per year does not apply to the provisions within this subrule.

(3) Instead of submitting a site-specific NOx RACT proposal, the stationary source may submit a complete permit to install application requesting a facility-wide NOx limit that would limit NOx emissions using a federally enforceable restriction or restrictions to less than 100 tons per year or a complete permit to install application for the potentially subject emission units that would limit emissions from all applicable emission units to less than 25 tons per year, before the effective date of the rule.

(4) The person responsible shall provide the department and the USEPA with the following information within 120 days after the effective date of this rule:

(a) Identification of each stationary source including individual emission units or groups of emission units at those stationary sources to which this rule applies.

(b) A determination of the total potential to emit, potential NOx emissions and the actual emissions of NOx for the most recent calendar year for each applicable NOx emission unit at the stationary source using emission testing or a calculation method approvable by the department.

(5) Within 1 year after the effective date of this rule, a person responsible shall provide to the department and the USEPA, a proposal for RACT for the stationary source. The RACT proposal must include, at a minimum, the following information:

(a) A list of each emission unit subject to the RACT requirements of this rule.

(b) The size or capacity of each affected emission unit, and the types and quantities of materials processed or produced in each emission unit, as applicable.

(c) A physical description of each emission unit and its operating characteristics.

(d) Estimates of the potential to emit and actual NOx emissions from the affected stationary source and each affected emission unit for the most recent calendar year and associated supporting documentation.

(e) A RACT analysis which meets the requirements of subrule (6), including technical and economic support documentation for each affected emission unit.

(f) A schedule for completing implementation of the RACT proposal as expeditiously as practicable, including interim dates for the issuance of purchase orders, start and completion of process, technology and control technology changes, and the completion of compliance testing, if applicable.

(g) The testing, monitoring, recordkeeping, and reporting procedures proposed to demonstrate compliance with RACT.

(h) Additional information as requested by the department that is necessary for the evaluation of the RACT proposal.

(6) The RACT analysis required under subrule (5)(e) of this rule must include:

(a) A ranking of the available control options for the affected emission unit in descending order of control effectiveness. Available control options are air pollution control technologies or techniques with a reasonable potential for application to the emission unit. Air pollution control technologies and techniques include the application of production process, or control methods that reduce NOx. The control technologies and techniques must include existing controls for the source category and technology transfer controls applied to similar source categories.

(b) An evaluation of the technical feasibility of the available control options identified in subdivision (a) of this subrule. The evaluation of technical feasibility must be based on physical, chemical, and engineering principles. A determination of technical infeasibility must identify technical difficulties which would preclude the successful use of the control option on the affected emission unit.

(c) A ranking of the technically feasible control options in descending order of overall control effectiveness for NOx emissions. The list must present the array of control options and include, at a minimum, the following information:

(i) The baseline emissions of NOx before implementation of each control option.

(ii) The estimated emission reduction potential or the estimated control efficiency of each control option.

(iii) The estimated emissions after the application of each control option.

(iv) The economic impacts and cost effectiveness of each control option.

(d) An evaluation of cost effectiveness of each control option consistent with the "EPA Air Pollution Control Cost Manual," EPA-452/B-02-001, adopted by reference in R 336.1902. The evaluation must be conducted in accordance with the following requirements:

(i) The cost effectiveness must be evaluated in terms of dollars per ton of NOx emissions reduction.

(ii) The cost effectiveness must be calculated as the annualized cost of the control option divided by the baseline emission rate minus the control option emission rate, as shown by the following equation:

$$\text{Average cost effectiveness } (\$/\text{ton removed}) = \frac{\text{Control option total annualized cost } (\$/\text{yr})}{\text{Baseline emission rate} - \text{Control option rate } (\text{tons/yr})}$$

(iii) For purposes of this paragraph, baseline emission rate represents the maximum emissions before the implementation of the control option. The baseline emission rate must be established using either test results or approvable emission factors and historic operating data.

(7) The department shall approve, deny, or modify each RACT proposal.

(8) Upon receipt of notice of the department's approval of the RACT proposal, the stationary source shall begin implementation of the measures necessary to comply with the approved RACT proposal. Implementation of the RACT program must be completed according to the schedule established in the approved RACT proposal and as expeditiously as practicable.

(9) The department shall submit each state-issued enforceable order or permit to install with its corresponding RACT program to the USEPA for approval as a

revision to the state implementation plan.

Section D

EGLE Calendar and AQD Website Public Comment and Hearing Notices (2023-13EQ)

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Public Notice for Air Quality Rules and State Implementation Plans

EGLE's Air Quality Division (AQD) has portions of its State Implementation Plan (SIP) and/or Air Pollution Control Rules open for comment from the public. The complete Michigan SIP is a cumulative record of hundreds of documents developed in phases and for various purposes over many years. As federal requirements change States must add to, delete from, or revise components in the SIP. The Michigan SIP contains rules, statutes, permits, consent orders, plans, emissions inventories and budgets. The plan also contains binding commitments to take future actions under specific circumstances: Michigan's Air Pollution Control Rules are made up of multiple "parts" each covering its own subject matter and/or pollutants, which often need updating. It's also possible the AQD needs to create new rules to address air quality issues in the state. More information on any actions open for comment are listed below.

The following action(s) are open for comment as indicated in their respective announcements:

Public Comment Period for Revisions to Part 1 of Michigan's Air Pollution Control Rules (Rule package 2023-011EQ)

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) opened a public comment period for revisions to Part 1 of Michigan's air pollution control rules on Monday, April 22, 2024, which will remain open until 5:00 pm EDT on Wednesday, May 22, 2024. The purpose of the public comment period and in-person/virtual public hearing are to allow all interested parties an opportunity to comment on the proposed rule and potential SIP revision.

Proposed Rule Revision:

Part 1: General Provisions
R 336.1103, R 336.1104, R 336.1113, R 336.1116, R 336.1119, R 336.1120, and R 336.1122 of the Michigan Administrative Code are proposed to be amended. (Rule package 2023-011EQ)

The proposed rules address revisions and additions of definitions that support additional rulemaking efforts and align the state's definitions with federal standards.

In the proposed rule revision and potential SIP submittal, EGLE is demonstrating compliance with the Clean Air Act.

The public is encouraged to review the proposed documents which can be found posted on our EGLE - Air Laws and Rules page under the *Proposed Rules* section and present

comments through the end of the public comment period. All statements received during the public comment period and public hearing will be considered by the Air Quality Division (AQD). After consideration, EGLE may submit the rule(s) for promulgation as written, submit it/them with minor revisions, or make major changes that will require a repeat of the public comment period.

Submitting Comments:

There are several ways to submit comments on the proposed rule and potential SIP revisions.

Email your comment to VaertenM@Michigan.gov. Please include "Comments on Part 1 Rule Revision" in the subject line.

Mail your comment to Marissa Vaerten, EGLE, Air Quality Division, SIP Development Unit, P.O. Box 30260, Lansing, Michigan 48909-7760.

Or, at the public hearing.

An in-person and virtual public hearing will be held on Wednesday, May 22, 2024 at 1:00 pm EDT, with information on how to attend posted on the AQD's webpage at Michigan.gov/Air.

Individuals without internet access and who are interested in receiving printed copies of the documents related to the proposed rule revisions or who need accommodations or other assistance to effectively participate in the hearing should contact Lorraine Hickman at 517-582-3494 or HickmanL@Michigan.gov.

This public notice is given in accordance with the Administrative Procedures Acts and federal regulations.

Public Comment Period for Revisions to Part 8 of Michigan's Air Pollution Control Rules (Rule package 2023-013EQ)

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) opened a public comment period for revisions to Part 8 of Michigan's air pollution control rules on Monday, April 22, 2024, which will remain open until 5:00 pm EDT on Wednesday, May 22, 2024. The purpose of the public comment period and in-person/virtual public hearing are to allow all interested parties an opportunity to comment on the proposed rule and potential SIP revision.

Proposed Rule Revision:

Part 8: Emission Limitations and Prohibitions: Oxides of Nitrogen
R 1801, R 336.1802, R 336.1803, R 336.1810, and R 336.1818 of the Michigan Administrative Code are proposed to be amended, and R 336.1840, R 336.1841, R 336.1842, R 336.1843, R 336.1844, R 336.1845, and R 336.1846 are proposed to be added. (Rule package 2023-013EQ)

The proposed rule changes are intended to clarify language in existing rules while new rules are meant to address requirements for the 2015 ozone National Ambient Air Quality Standard nonattainment areas in Michigan.

In the proposed rule revision and potential SIP submittal, EGLE is demonstrating compliance with the Clean Air Act.

The public is encouraged to review the proposed documents which can be found posted on our EGLE - Laws and Rules page under the *Recently Finalized Rules* section and present comments through the end of the public comment period. All statements received during the public comment period and public hearing will be considered by the Air Quality Division (AQD). After consideration, EGLE may submit the rule(s) for promulgation as written, submit it/them with minor revisions, or make major changes that will require a repeat of the public comment period.

Submitting Comments:

There are several ways to submit comments on the proposed rule and potential SIP revisions.

Email your comment to mcdonaldt@michigan.gov. Please include "Comments on Part 8 Rule Revision" in the subject line.

Mail your comment to Trace McDonald, EGLE, Air Quality Division, SIP Development Unit, P.O. Box 30260, Lansing, Michigan 48909-7760.

Or, at the public hearing.

An in-person and virtual public hearing will be held on May 22, 2024 at 1:00 pm, with information on how to attend posted on the AQD's webpage at Michigan.gov/Air.

Individuals without internet access and who are interested in receiving printed copies of the documents related to the proposed rule revisions or who need accommodations or other assistance to effectively participate in the hearing should contact Lorraine Hickman at 517-582-3494 or HickmanL@Michigan.gov.

This public notice is given in accordance with the Administrative Procedures Acts and federal regulations.

Public Comment Period for Revisions to Part 9 of Michigan's Air Pollution Control Rules (Rule package 2023-014EQ)

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) opened a public comment period for revisions to Part 9 of Michigan's air pollution control rules on Monday, April 22, 2024, which will remain open until 5:00 pm EDT on Wednesday, May 22, 2024. The purpose of the public comment period and in-person/virtual public hearing are to allow all interested parties an opportunity to comment on the proposed rule and potential SIP revision.

Proposed Rule Revision:

Part 9: Emission Limitations and Prohibitions - Miscellaneous
R 336.1902 of the Michigan Administrative Code is proposed to be amended. (Rule package 2023-014EQ)

The rule changes update and add additional adoption by reference information needed to support rules throughout the rulebook and to meet minimum federal requirements.

In the proposed rule revision and potential SIP submittal, EGLE is demonstrating compliance with the Clean Air Act.

The public is encouraged to review the proposed documents which can be found posted on our EGLE - Air Laws and Rules page under the *Proposed Rules* section and present comments through the end of the public comment period. All statements received during the public comment period and public hearing will be considered by the Air Quality Division (AQD). After consideration, EGLE may submit the rule(s) for promulgation as written, submit it/them with minor revisions, or make major changes that will require a repeat of the public comment period.

Submitting Comments:

There are several ways to submit comments on the proposed rule and potential SIP revisions.

Email your comment to VaertenM@Michigan.gov. Please include "Comments on Part 9 Rule Revision" in the subject line.

Mail your comment to Marissa Vaerten, EGLE, Air Quality Division, SIP Development Unit, P.O. Box 30260, Lansing, Michigan 48909-7760.

Or, at the public hearing.

An in-person and virtual public hearing will be held on Wednesday, May 22, 2024 at 1:00 pm EDT with information on how to attend posted on the AQD's webpage at Michigan.gov/Air.

Individuals without internet access and who are interested in receiving printed copies of the documents related to the proposed rule revisions or who need accommodations or other assistance to effectively participate in the hearing should contact Lorraine Hickman at 517-582-3494 or HickmanL@Michigan.gov.

This public notice is given in accordance with the Administrative Procedures Acts and federal regulations.

EGLE promotes the equitable treatment and meaningful involvement of Michigan's residents regarding the development, implementation, and enforcement of laws, regulations, and policies. Equitable treatment means that no group of people bears a disproportionate share of the negative consequences resulting from governmental, industrial, or commercial operations and policies. Meaningful involvement means all people have an opportunity to participate in decisions that affect their environment and/or health.

EGLE does not discriminate on the basis of race, sex, religion, age, national origin, color, marital status, disability, political beliefs, height, weight, genetic information, or sexual orientation in the administration of any of its programs or activities, and prohibits intimidation and retaliation, as required by applicable laws and regulations.

Michigan Department of Environment, Great Lakes, and Energy (EGLE)

Deadline for Public Comment for Administrative Rules Part 1, Part 8, and Part 9.

WEDNESDAY, MAY 22, 2024, 1 – 2PM

Join the hearing

A public comment period will be held from April 22, 2024, until May 22, 2024, for Administrative Rules Part 1. General Provisions: Rule Set 2023-11 EQ; Part 8. Emission Limitations and Prohibitions-Oxides of Nitrogen: Rule Set 2023-13 EQ; and Part 9. Emission, Limitation and Prohibitions-Miscellaneous: Rule Set 2023-14 EQ. A public hearing will be held on May 22, 2024, at 1:00 PM.

Ford Conference Room, Constitution Hall, 2nd Floor, South Tower. To join by phone: 636-651-3142 Conference code: 374288

Individuals needing language assistance or accommodations for effective participation at the hearing should contact Kaitlyn DeVries at 517-599-1938 by May 10, 2024, to request language, mobility, visual, hearing, translation, and/or other assistance. The public hearing will be conducted in compliance with the 1990 Americans with Disabilities Act. Constitution Hall is accessible with handicap parking available.

EGLE does not discriminate on the basis of race, sex, religion, age, national origin, color, marital status, disability, political beliefs, height, weight, genetic information, or sexual orientation in the administration of any of its programs or activities, and prohibits intimidation and retaliation, as required by applicable laws and regulations.

Location Constitution Hall, Ford Conference Room, 2nd Floor, South Tower, 525 W Allegan St, Lansing, MI, 48933, USA

Event Type Public Comment Periods, Public Hearings and Meetings

Counties State-wide

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Printed: Thursday, March 6, 2025 at 2:31 PM PST

Section E

Agency Report to the Joint Committee on Administrative Rules
(JCAR Report for 2023-013EQ)

Michigan Office of Administrative Hearings and Rules
MOAHR-Rules@michigan.gov

AGENCY REPORT TO THE JOINT COMMITEE ON ADMNINISTRATIVE RULES (JCAR)

1. Agency Information

Agency name:
Environment, Great Lakes and Energy

Division/Bureau/Office:
Air Quality Division

Name of person completing this form:
Cari DeBruler

Phone number of person completing this form:
517-899-5275

E-mail of person completing this form:
DEBRULERC@michigan.gov

Name of Department Regulatory Affairs Officer reviewing this form:
Dale Shaw

2. Rule Set Information

MOAHR assigned rule set number:
2023-13 EQ

Title of proposed rule set:
Part 8. Emission Limitations and Prohibitions-Oxides of Nitrogen

3. Purpose for the proposed rules and background:

Part 8. Emission Limitations and Prohibitions – Oxides of Nitrogen of the Michigan Air Pollution Control Rules (MAPCR) contains rules developed to fulfill federal Clean Air Act, 42 U.S.C. 7401 et seq (CAA) requirements for sources of oxides of nitrogen (NOx). Michigan must create new rules to address a change to a moderate classification in nonattainment areas under provisions of the National Ambient Air Quality Standards (NAAQS). These rules are often referred to as NOx "Reasonably Available Control Technologies" (RACT). For past NAAQS, the Department of Environment, Great Lakes, and Energy (EGLE) was not required to promulgate RACT rules for NOx sources in the nonattainment areas established under those standards. With the establishment of a new standard and a new classification, Michigan must create RACT rules to align with requirements of Section 182(b)(2) of the CAA. EGLE must promulgate new rules setting emission standards and operational requirements for certain types of NOx emission sources for the nonattainment areas.

Additionally, existing Part 8 Rules addressing the "NOx State Implementation Plan (SIP) Call" federal program will be modified to address minor improvements suggested by representatives of the United States Environmental Protection Agency (EPA).

4. Summary of proposed rules:

The Part 8 proposed rule set contains rules developed to fulfill federal Clean Air Act, 42 USC 7401et seq (CAA) requirements for sources of oxides of nitrogen (NOx). Michigan must create new rules to address a change to a moderate classification in nonattainment areas under provisions of the National Ambient Air Quality Standards (NAAQS). These rules are often referred to as NOx "Reasonably Available Control Technologies" (RACT). For past NAAQS, EGLE was not required to promulgate RACT rules for NOx sources in the nonattainment areas established under those standards. With the establishment of a new standard and a new classification, Michigan must create RACT rules to align with requirements of Section 182(b)(2) of the CAA. EGLE must promulgate new rules setting emission standards and operational requirements for certain types of NOx emission sources for the nonattainment areas.

Additionally, existing Part 8 Rules addressing the "NOx State Implementation Plan (SIP) Call" federal program will be modified to address minor improvements suggested by representatives of the United States Environmental Protection Agency.

5. List names of newspapers in which the notice of public hearing was published and publication dates:

Lansing State Journal - published April 22, 2024.
Oakland Press - published April 22, 2024.
The Mining Journal - published April 22, 2024.

6. Date of publication of rules and notice of public hearing in Michigan Register:

5/1/2024

7. Date, time, and location of public hearing:

5/22/2024 01:00 PM at In Person: Ford Conference Room, 2nd Floor, South Tower, Constitution Hall, 525 West Allegan Street, Lansing, MI 48933 , Virtual: https://bit.ly/3wZt1VQ To join by phone: 636-651-3142, conference code 374288

8. Provide the link the agency used to post the regulatory impact statement and cost-benefit analysis on its website:

https://ARS.apps.lara.state.mi.us/Transaction/RFRTransaction?TransactionID=1440

9. List of the name and title of agency representative(s) who attended the public hearing:

Tracey McDonald – Air Quality Division (AQD)
Marissa Vaerten – AQD
Cari DeBruler – AQD
Thomas Shanley – AQD
Annette Switzer – AQD
John Olson – AQD
Kaitlyn DeVries – Environmental Support Division (ESD)
Jim Ostrowski – ESD (Virtual)
Dale Shaw – Information Management Division (IMD)
Aimee Crouch - IMD

10. Persons submitting comments of support:

None.

11. Persons submitting comments of opposition:

None.

12. Persons submitting other comments:

Eric Svingen, David Lifland (as represented under Eric Svingen's written comments as LD), Kathleen D'Agostino, and Kathleen (Katie) Mullen representing the United States Environmental Protection Agency (USEPA)
Caroline Liethen, representing the Michigan Manufacturers Association (MMA)
Kathyrn Ross, representing Consumers Energy
Michele Buckler, representing Detroit Diesel Corporation

13. Identify any changes made to the proposed rules based on comments received during the public comment period:

	Name & Organization	Comments made at public hearing	Written Comments	Agency Rationale for Rule Change and Description of Change(s) Made	Rule number & citation changed
1	Eric Svingen, USEPA		The comment stated that federal regulations which are not approved into the State Implementation Plan (SIP) should not be used to exempt sources from SIP requirements.	Language was removed that eliminates exemptions of R 336.1801 for sources subject to Federal Implementation Plans (FIPs).	R 336.1801 (11)(a)
2	David Lifland, USEPA		The phrase "Michigan Fine Grid zone" is undefined in R 336.1818.	The phrase was previously defined under R 336.1803 for other rules. R 336.1803 was expanded to include applicability to R 336.1818.	R 336.1803
3	David Lifland, USEPA		Citation in draft rule is incorrect. Change reference from R336.1802 (2) to R 336.1802 (4).	Suggested change from R336.1802 (2) to R 336.1802 (4) was made.	R 336.1803 (c)

4	David Lifland, USEPA		NOx account administrator is no longer a relevant term.	There is one scenario that still could have an account administrator, so wording was added to clarify.	R 336.1803(f) and (i)
5	Eric Svingen, USEPA		Definition is not needed if related use is removed.	Definition of "Ozone federal implementation plan" deleted.	R 336.1803 (v)
6	Eric Svingen, USEPA		Reference to FIP is not necessary if FIP language is removed.	FIP language and language referencing federal regulations currently stayed, was removed.	R 336.1810 (2)(a) R 336.1810 (3) R 336.1810 (3)(d) R 336.1810 (5)
7	Eric Svingen, USEPA		FIP language should be removed.	FIP language was removed.	R 336.1810 (2)(d)(iv)

8	Katie Mullen, USEPA		A date in the draft has passed and is unnecessary.	The date March 1, 2024 has passed and is unnecessary, therefore it was removed.	R 336.1841 (2)(a)(i), R 336.1841 (4), R 336.1842 (2)(a)(i), R 336.1842 (4), R 336.1842 (4)(b), R 336.1843 (2)(a)(i), R 336.1843 (4)(a), R 336.1844 (2)(a)(i), R 336.1844 (4), R 336.1844 (5), R 336.1845 (b), R 336.1845 (e), R 336.1846 (2)(b)(i), & R 336.1846 (3)
9	Katie Mullen, USEPA		Both conditions (applicability to a federal regulation and establishing the federal regulation is equal to or more stringent than the rule requirements) should be met.	Uses of "or" were changed to "and" thereby making both conditions necessary, and additional language was added to make it clearer that there is no discretion about equivalency.	R 336.1841 (3)(c), R 336.1842 (3)(b), & R 336.1843 (3)(a)

10	Katie Mullen, USEPA		FIP language should be removed.	FIP language was removed.	R 336.1841 (3)(e) R 336.1842 (3)(c) R 336.1843 (3)(d) R 336.1844 (3)(j)
11	Katie Mullen, USEPA		Alternate wording was suggested to broaden what engine certification maintenance could be required (as appropriate) rather than what would be minimally acceptable.	Suggested alternate wording was utilized. This change clarifies a source must include but is not limited to listed requirements to show maintenance of engine certification.	R 336.1841 (5)(a)
12	Katie Mullen, USEPA		Testing frequency was not sufficient.	The testing frequency was modified based on additional USEPA input.	R 336.1841 (5)(b)(iii)(A) R 336.1842 (7)(a) R 336.1843 (6)(a) R 336.1844 (6)(c)(i)
13	Katie Mullen, USEPA		The use of a representative performance test for multiple identical emission units would need to be approved by the USEPA.	This option was removed from the rule.	R 336.1841 (5)(b)(iii)(A), R 336.1842 (7)(a), R 336.1843 (6)(a), & R 336.1844 (6)(c)(i)

14	Kathryn Ross, Consumers Energy		Manufacture date of source is not always known.	Wording was added to through addition of R 336.1841(6)(b)(iv) to make requirement only if manufacture date is available for non-certified engines.	R 336.1841 (6)(a) and (c)
15	Katie Mullen, USEPA		Periodic reporting is required per the Clean Air Act.	A requirement to report every 3 years was added.	R 336.1841 (7), R 336.1842 (9) R 336.1843 (8) R 336.1844 (8)
16	Caroline Liethen, MMA		The comment suggested a different wording for the event that causes the contingency measure.	After consultation with the USEPA, the event language was reworded.	R 336.1841 (8) R 336.1842 (10)(b) R 336.1844 (9)
17	Caroline Liethen, MMA		Typographical error – repeated words.	Extra words were eliminated.	R336.1842(2) (a)
18	Caroline Liethen, MMA and Kathryn Ross, Consumers Energy		Typographical error – incorrect source type named.	"Boiler" was erroneously named. Turbine was inserted for Rule 336.1843 and emission unit for Rule 336.1844.	R336.1843(6) (b)(ii) and (iii) R336.1844(6) (c)(ii) (B) and (C)

19	Kathryn Ross, Consumers Energy		Wording implies the company needs to get USEPA approval. The company needs state approval only.	Requirement for the company to request USEPA approval was removed to clarify that the company is not the one who submits alternative RACT request to USEPA for approval into the SIP, the state does as required under R 336.1845(d).	R 336.1845
20	Katie Mullen, USEPA		Add the qualifier "federally enforceable" to describe permits/orders.	Phrase was added, as appropriate.	R 336.1845 (a)
21	Kathleen D'Agostino, USEPA		Timeframe is unnecessary and should be removed.	AQD staff want the timeframe to ensure timely response, but the wording was changed to only be a proposal for the application and was therefore shortened in length from 180 days to 60 days.	R 336.1845 (a)
22	Caroline Liethen, MMA and Kathryn Ross, Consumers Energy		Confusing wording.	Reworded and corrected to more clearly require proper documentation.	R 336.1845 (a)(iv)
23	Kathryn Ross, Consumers Energy		Unnecessary language.	The reference to RACT rules was removed due to a lack of value.	R 336.1845 (a)(v)
24	Kathryn Ross, Consumers Energy		Unnecessary language.	The unnecessary phrase was removed.	R 336.1845 (b)

25	Kathryn Ross, Consumers Energy		Unnecessary language.	The subrule was reworded to simplify and clarify when a public hearing was required.	R 336.1845 (c)
26	Kathryn Ross, Consumers Energy		Unnecessary language.	Other rules address issuance and requirements of permits; therefore, language was removed.	R 336.1845 (d)
27	Kathryn Ross, Consumers Energy		Unnecessary language.	Redundant and unnecessary language was removed.	R 336.1845 (e)
28	Kathryn Ross, Consumers Energy and Kathleen D'Agostino, USEPA		Unnecessary language and timeframes.	Unnecessary language was removed. Proposed maximum timeframe language was removed because it will be addressed through the RACT application and proposal documentation.	R 336.1845(f)
29	Kathryn Ross, Consumers Energy		Confusing language.	Subrule (2)(c) was eliminated and moved to part of subrule (2) and subrule (2)(a).	R 336.1846 (2) R 336.1846 (2)(a) R 336.1846 (2)(c)
30	Kathleen D'Agostino, USEPA		Implies that only existing major sources are required to address the rule.	Wording modified to clarify that new major sources in the nonattainment area are also required to address the rule.	R 336.1846 (2)(b)(i)

31	Kathryn Ross, Consumers Energy and Katie Mullen, USEPA		Timeframes are unnecessary.	Maximum timeframe language was removed in lieu of a reliance on times described in the RACT proposal.	R 336.1846 (8)
32	David Lifland, USEPA		The words "combustion" and "combination" were mixed up.	The words "combustion" and "combination" were switched to make correction.	R 336.1803 (aa)(iii)(A)-(B)

14.Date report completed:

11/1/2024