

Michigan Office of Administrative Hearings and Rules

Administrative Rules Division (ARD)

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**REGULATORY IMPACT STATEMENT
and COST-BENEFIT ANALYSIS (RIS)**

Agency Information:

Department name:

Environment, Great Lakes and Energy

Bureau name:

Air Quality Division

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Rule Set Information:

ARD assigned rule set number:

2023-13 EQ

Title of proposed rule set:

Part 8. Emission Limitations and Prohibitions-Oxides of Nitrogen

Comparison of Rule(s) to Federal/State/Association Standard

1. Compare the proposed rules to parallel federal rules or standards set by a state or national licensing agency or accreditation association, if any exist.

The proposed rules address improvements requested by the United States Environmental Protection Agency (USEPA) to improve clarity, enforceability, and approvability in rules meant to transfer responsibility of administering the federal Nitrogen Oxide State Implementation Plan Call program (NOx SIP Call), to the State of Michigan. The NOx SIP Call is a federal requirement created several years ago for states to submit a state implementation plan (SIP) for management of specific nitrogen oxide (NOx) sources. In a previous rule making, Part 8 rules were promulgated in order to allow the state of Michigan to oversee the requirements of the program, a goal of the USEPA, the State of Michigan, and effected sources. The proposed rules make minor changes to ensure the requirements are equivalent to the federal standards before the USEPA will allow administration of the program to be transitioned to the state.

The proposed rules also satisfy requirements of the federal Clean Air Act (CAA) 42 USC 7401 et seq., referred to as "Reasonably Available Control Technologies" (RACT), and were drafted using other state programs' versions of similarly required rules as a resource or model.

A. Are these rules required by state law or federal mandate?

The proposed rules addressing the NOx SIP Call enable the state to take responsibility for the sources subject to the NOx SIP Call. They are required to be administered by either the USEPA or, by permission of the USEPA, the State of Michigan. Shifting from federal to state administration of the program will allow the state more flexibility, an outcome desired by the state, the USEPA, and the regulated community.

The proposed rules addressing RACT are required under the federal CAA Section 182(f) for the 2015 ozone national ambient air quality standard (NAAQS). They are required by the CAA to address nonattainment issues in specific areas of the state, referred to as nonattainment areas (NAA). The NAA for these rules include all of Berrien county, the western half of Allegan county, and the western half of Muskegon county. The NAA's in the state have not met the ozone NAAQS and, until recently, were classified as marginal nonattainment. The USEPA has recently elevated these areas to moderate nonattainment. Federal requirements for moderate areas include RACT controls on NOx sources.

While not prescriptive, the control requirements are in the CAA.

B. If these rules exceed a federal standard, please identify the federal standard or citation, describe why it is necessary that the proposed rules exceed the federal standard or law, and specify the costs and benefits arising out of the deviation.

The proposed rules do not exceed federal standards.

2. Compare the proposed rules to standards in similarly situated states, based on geographic location, topography, natural resources, commonalities, or economic similarities.

The proposed rules do not exceed standards in similarly situated states as they are intended to meet the requirements of the federal CAA. Versions of both the rules related to the NOx SIP Call and RACT have already been adopted by similarly situated states and were used as examples in drafting the proposed rules.

A. If the rules exceed standards in those states, please explain why and specify the costs and benefits arising out of the deviation.

The proposed rule revisions do not exceed standards in any other similarly situated states.

3. Identify any laws, rules, and other legal requirements that may duplicate, overlap, or conflict with the proposed rules.

The proposed rules would not duplicate, overlap, or conflict with other existing laws, rules, or other legal requirements, but would meet the federal requirements authorizing the state to administer the program.

A. Explain how the rules have been coordinated, to the extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter. This section should include a discussion of the efforts undertaken by the agency to avoid or minimize duplication.

The proposed rules have been coordinated with USEPA guidance to reflect all requirements in federal rules so that the USEPA allows the state to continue managing their air program; management of the program includes periodic review and comparison by staff against the federal laws to avoid conflicts.

Purpose and Objectives of the Rule(s)

4. Identify the behavior and frequency of behavior that the proposed rules are designed to alter.

The proposed NOx SIP Call rules are minor clarifications and improvements to existing rules and are not meant to alter behavior from the existing rules they are updating. However, the NOx SIP Call rules, in general, are meant to shift control of a program meant to reduce NOx emissions. Stakeholders should require little change in behavior since the program has existed at the federal level for many years.

The proposed RACT rules reduce NOx emissions to facilitate the nonattainment areas reaching the 2015 ozone NAAQS and meet the federal CAA requirements, 42 USC 7401 et seq. They are designed to lower NOx emissions for all subject sources going forward.

A. Estimate the change in the frequency of the targeted behavior expected from the proposed rules.

There is no expected change in frequency to any behavior as a result of the NOx SIP Call rule edits.

The proposed RACT rules are expected to decrease NOx emissions across various source categories resulting in lower ambient ground-level ozone levels in the NAAs. The change in the frequency of the behavior should be from not limiting emissions to always limiting emissions for certain activities/processes.

B. Describe the difference between current behavior/practice and desired behavior/practice.

There is no expected change in overall behaviors because the proposed NOx SIP Call rules would implement the existing federal requirements into the new state-run program. Regulated entities should have already been meeting the requirements under the federal program.

The proposed RACT rules are designed to change the behavior/practice from not controlling to controlling emissions, in some cases, or increasing the level of control already being utilized.

C. What is the desired outcome?

The main purpose of the proposed NOx SIP Call rules is for the state program to become federally approved.

The main purpose of the proposed RACT rules is to meet CAA requirements, reduce NOx emissions, and eventually bring nonattainment areas into attainment.

5. Identify the harm resulting from the behavior that the proposed rules are designed to alter and the likelihood that the harm will occur in the absence of the rule.

The proposed NOx SIP Call rules, if not made, could result in the USEPA disapproving the existing applicable rules related to the state of Michigan's SIP, thus not authorizing the state program. Although not impacting emissions overall because facilities would still have to follow the federal program, it would reduce flexibility opportunities for the regulated facilities if the proposed rules are not pursued.

The state's failure to implement the RACT rules for moderate ozone nonattainment areas would result in the USEPA imposing offset and highway sanctions (to the Michigan Department of Transportation) lasting until the control requirements have been adopted by Michigan.

It is important for the health of residents that the state bring all ozone nonattainment areas back into attainment, so all Michigan citizens have clean air to breathe. At elevated concentrations, ozone can cause respiratory distress, even in healthy adults, but those with lung disease (such as asthma) and children are particularly susceptible. In the absence of the proposed RACT rules, the decrease in air quality would result in negative impacts to human health for Michigan residents.

A. What is the rationale for changing the rules instead of leaving them as currently written?

Leaving the NOx SIP Call rules as currently written makes it unlikely the state's program will be authorized by the USEPA. The proposed rules have been developed with input from the USEPA and are meant to achieve federal authorization for the state program.

By adding the proposed RACT rules, the state would be able to meet the requirements for moderate nonattainment classification under the CAA, which includes implementation of RACT for all existing major sources of NOx. If the rules are not finalized, then the state could face highway sanctions imposed by the USEPA and can result in elevation of nonattainment areas from the moderate classification level to serious nonattainment if attainment is not achieved.

6. Describe how the proposed rules protect the health, safety, and welfare of Michigan citizens while promoting a regulatory environment in Michigan that is the least burdensome alternative for those required to comply.

The proposed rules promote the protection of the health, safety, and welfare of Michigan citizens by bringing Michigan's rules for existing NOx sources up to date with current federal programs and requirements.

The NOx SIP call rule improvements are designed to make the requirements clear to the regulated community, thereby minimizing incorrect interpretations and the need for outside assistance, increasing a party's ability to comply, and reducing burdens on the regulated community and the Department of Environment, Great Lakes, and Energy (EGLE).

The RACT rules are required as a method of achieving NOx levels that meet federal standards, which are designed to protect health. Michigan's approach to meeting the CAA requirements takes a balanced approach that attempts to require only the necessary, effective, and most reasonable burdens on the regulated community. For example, some state programs implement "Best available Control Technology" or "Lowest Achievable Emission Rate" which are generally more rigorous than RACT. The proposed rules also utilize applicability levels that allow small sources to avoid some or all requirements.

7. Describe any rules in the affected rule set that are obsolete or unnecessary and can be rescinded.

There are no rules in the proposed rule set that are obsolete, unnecessary, and can be rescinded.

Fiscal Impact on the Agency

Fiscal impact is an increase or decrease in expenditures from the current level of expenditures, i.e. hiring additional staff, higher contract costs, programming costs, changes in reimbursements rates, etc. over and above what is currently expended for that function. It does not include more intangible costs for benefits, such as opportunity costs, the value of time saved or lost, etc., unless those issues result in a measurable impact on expenditures.

8. Please provide the fiscal impact on the agency (an estimate of the cost of rule imposition or potential savings for the agency promulgating the rule).

The proposed rule revisions are not likely to have any major fiscal impact on the agency. EGLE staff will need to respond to possible increased requests for permit revisions from sources impacted by the rule revisions, and additional compliance monitoring may be required. This is expected to be done with current resources.

9. Describe whether or not an agency appropriation has been made or a funding source provided for any expenditures associated with the proposed rules.

No additional appropriation has been made for these rules.

10. Describe how the proposed rules are necessary and suitable to accomplish their purpose, in relationship to the burden(s) the rules place on individuals. Burdens may include fiscal or administrative burdens, or duplicative acts.

The burdens placed on agency staff would be similar to job duties already performed.

The NOx SIP Call rules, when approved, may give more flexibility to the regulated sources which can make compliance determinations easier for agency staff.

The proposed RACT rules would increase administrative burden but would be integrated with similar efforts already being conducted by staff and therefore the burden is not anticipated to be substantial.

The proposed rules are designed to directly impact NOx emissions, therefore impacting ozone levels, using requirements common to this issue, thus making the requirements both necessary and suitable for all effected stakeholders.

A. Despite the identified burden(s), identify how the requirements in the rules are still needed and reasonable compared to the burdens.

The proposed RACT rules are needed to meet the requirements for implementation of RACT under the CAA for all existing major sources of NOx and additional measures to meet Reasonable Further Progress requirements. There is some additional burden with permitting and compliance determinations, but this work can be integrated with current work with existing agency resources for the proposed NOx SIP Call and RACT rules and is not anticipated to be substantial.

Impact on Other State or Local Governmental Units

11. Estimate any increase or decrease in revenues to other state or local governmental units (i.e. cities, counties, school districts) as a result of the rule. Estimate the cost increases or reductions for other state or local governmental units (i.e. cities, counties, school districts) as a result of the rule. Include the cost of equipment, supplies, labor, and increased administrative costs in both the initial imposition of the rule and any ongoing monitoring.

The proposed rules will not affect revenues, nor are they anticipated to increase or decrease the cost for other state or local governmental units. Failure to implement the proposed rules will result in substantial federal highway fund sanctions for the areas affected, which would most directly impact the Michigan Department of Transportation and the local governments, road commissions, municipalities, etc., that use these funds.

12. Discuss any program, service, duty, or responsibility imposed upon any city, county, town, village, or school district by the rules.

No additional responsibilities will be imposed on cities, towns, villages, or school districts by these proposed rules.

A. Describe any actions that governmental units must take to be in compliance with the rules. This section should include items such as record keeping and reporting requirements or changing operational practices.

No governmental units will need to take any actions due to these proposed rules.

13. Describe whether or not an appropriation to state or local governmental units has been made or a funding source provided for any additional expenditures associated with the proposed rules.

Neither the state nor local governmental units have sought an appropriation for the proposed rules. There are no anticipated state or local government additional expenditures associated with the proposed rules.

Rural Impact

14. In general, what impact will the rules have on rural areas?

The proposed NOx SIP Call rules will have no impact specific to rural areas compared to non-rural areas. NOx emissions can transport to all areas of the state, but sources subject to the NOx SIP Call rules are generally located in developed areas.

The proposed RACT rules will be implemented equally across all portions of the NAA, reducing NOx emissions in those areas, including rural areas. It is expected that the rule revisions will have positive impacts on public health and the environment by reducing ozone concentrations in these areas.

A. Describe the types of public or private interests in rural areas that will be affected by the rules.

The proposed NOx SIP Call rules will have no impact specific to rural areas compared to non-rural areas. The rules are designed to focus on sources of NOx emissions, some located in rural areas, but mostly located in suburban and urban areas. The public is expected to be positively affected by emission reductions in both rural and urban areas because air is constantly moving and knows no geographic boundaries.

Similarly, the regulated community within the NAA will be impacted equally by the proposed RACT rules, regardless of whether in a rural or non-rural area.

Environmental Impact

15. Do the proposed rules have any impact on the environment? If yes, please explain.

The proposed rules are expected to have beneficial impacts on the environment by continuing to maintain or lowering emissions of NOx from existing sources, which will contribute to a reduction of ozone concentrations and improved air quality.

Small Business Impact Statement

16. Describe whether and how the agency considered exempting small businesses from the proposed rules.

The proposed NOx SIP Call rules would have no effect on small businesses as they only affect seven large facilities at this time.

The State of Michigan followed federal guidelines when creating the proposed RACT rules, which do exempt many small operations at existing facilities from controls. The size of the business (small versus large) is not a factor as much as the quantity of their emissions, which may, but does not always correlate.

17. If small businesses are not exempt, describe (a) the manner in which the agency reduced the economic impact of the proposed rules on small businesses, including a detailed recitation of the efforts of the agency to comply with the mandate to reduce the disproportionate impact of the rules upon small businesses as described below (in accordance with MCL 24.240(1)(a-d)), or (b) the reasons such a reduction was not lawful or feasible.

The proposed NO_x SIP Call rules only impact large pieces of equipment at seven large facilities, so no small businesses will be impacted.

The federal guidelines and rules followed when drafting the proposed RACT rules do not specifically allow for the exemption of small businesses but do allow for exempting small operations at affected facilities and small sources of emissions. Additionally, the proposed rule R 336.1845 provides for an alternative RACT approval which a small business could pursue if the standard RACT requirements are not economically reasonable.

A. Identify and estimate the number of small businesses affected by the proposed rules and the probable effect on small businesses.

Under these proposed RACT rules, it is estimated that some small businesses will be affected. This affect can range from no impact to a reasonable additional cost to purchase a more efficient, lower emitting unit. EGLE is working with the USEPA to ensure the smallest units, most often used by small businesses, have fewer or no requirements in the proposed rules. In the event a business is impacted, in most cases, it is estimated those subject to the proposed rules may need to increase recordkeeping frequency and update their equipment to minimize their emissions.

The greatest anticipated effect on a small business would be the need to purchase a lower emitting source, which is meant to be a reasonable cost and keeps a level playing field for all businesses making similar purchases. The geographic areas impacted by these rules are limited to three separate regions in West Michigan. There is no existing data resource for the agency to utilize to determine the number of businesses affected by these rules, but experience with similar regulations for these source types and knowledge of the vast number of small businesses in these areas would suggest only a small fraction would be impacted. Using census data and estimating fewer than 10,000 businesses in the NAAs, and only a few hundred with regulated air emissions, the small businesses that may have to address the regulations, likely with minimal requirements, is estimated to be conservatively fifty, more likely much fewer.

B. Describe how the agency established differing compliance or reporting requirements or timetables for small businesses under the rules after projecting the required reporting, record-keeping, and other administrative costs.

The State of Michigan followed federal requirements when creating the proposed RACT rules, which are required for large existing sources of NO_x. These rules were drafted to exempt small emitters from restrictions and associated compliance activities, such as testing, and require minimal reporting and recordkeeping. The federal regulations do not allow for varying requirements based on the size of the business but do allow for a case-by-case alternative RACT evaluation which has been incorporated in the proposed rule R 336.1845.

C. Describe how the agency consolidated or simplified the compliance and reporting requirements for small businesses and identify the skills necessary to comply with the reporting requirements.

Many small operations at affected facilities are exempt from the proposed rules if they only emit a small volume of NO_x. Compliance and reporting requirements for all non-exempt facilities were made as effortless as possible within the constraints of the federal requirements and require no special skills and little additional knowledge to satisfy.

D. Describe how the agency established performance standards to replace design or operation standards required by the proposed rules.

The State of Michigan followed federal practices and standards when creating the proposed rules. Where appropriate and allowed, the state incorporated all the flexibility possible regarding performance, design, and operation standards in the proposed rules, including allowing combinations when permitted.

18. Identify any disproportionate impact the proposed rules may have on small businesses because of their size or geographic location.

There is no known impact on small business regarding the NO_x SIP Call rules.

There is no known disproportionate impact on small businesses due to the proposed RACT rules. Small businesses must comply with federal regulations and the proposed rules apply equally across the NAA.

19. Identify the nature of any report and the estimated cost of its preparation by small businesses required to comply with the proposed rules.

The proposed NOx SIP Call rules should have no reporting cost impact on small business.

The proposed RACT rules will require low emitters to keep records sufficient to demonstrate compliance of their status as being exempt from the requirements. In our experience, records for low emitters are often derived from records already kept by the facility, and only require minimal calculations to demonstrate compliance, thereby not adding to cost of the business. In the event a small business requires an assessment, consultant costs are estimated to range from \$1,200 to \$3,600 to determine applicability and create appropriate records to show compliance for small businesses with minimal needs.

20. Analyze the costs of compliance for all small businesses affected by the proposed rules, including costs of equipment, supplies, labor, and increased administrative costs.

Regarding the proposed NOx SIP Call rules, there are no expected costs to small businesses for equipment, supplies, labor administration, etc.

The proposed RACT rules are designed to impact larger existing sources but exempt many smaller units for any sized business. EGLE estimates less than two dozen facilities, out of over 440 regularly inspected facilities in the non-attainment areas are possibly impacted by this portion of the proposed rules. These few facilities are considered potential large emitters, and EGLE's assumption is that most would not be considered small businesses. Regardless, the financial impact to those facilities would vary based on size of the equipment, age of the equipment, and the approach determined for compliance (e.g., replace, retrofit, or further maintenance). EGLE estimates the range of impact to be from \$0 to upwards of \$1 million (i.e. admin, labor and equipment costs), the latter being if a facility had to convert large engines to turbines or similar large-scale changes. In general, small businesses are unlikely to have equipment emitting at levels requiring modification or replacement, and therefore a small business, generally, would be expected to have no costs for compliance.

New units (e.g., boilers, engines, process heaters, or turbines) purchased in compliance with the proposed RACT rules will potentially be regulated at all businesses (large and small). Most likely there will be incremental or increased costs as measured when comparing the price of units that meet standards to units that do not meet standards. Overall, this incremental increase, would be considered a reasonable cost by the USEPA, and will be necessary in achieving emission reduction goals of the program. While the increased costs are unknown and would naturally vary, EGLE estimates current unit prices in the upper hundreds of thousands range. It is also worth mentioning that non-compliant new equipment may not even be available for purchase in the marketplace.

21. Identify the nature and estimated cost of any legal, consulting, or accounting services that small businesses would incur in complying with the proposed rules.

For the proposed NOx SIP Call rules, no new costs should be incurred by any facilities operated as small businesses since impacted sources are not small businesses.

For the proposed RACT rules, costs for legal, consulting, or accounting services for small businesses are expected to be reasonable, since these rules are considered by the USEPA as reasonably available technology. Small business applicability to these rules is likely to be minimal. Utilizing small business outreach and assistance materials that are planned to be created by EGLE, most of the few subject small businesses should incur no cost. Those few that require additional consulting services would be expected to require minimal assistance and therefore incur estimated one-time costs in the range of \$1,200 to \$3,600 based on staff knowledge of consultant fees and complexity of requirements to satisfy compliance determinations and to establish minimal records.

22. Estimate the ability of small businesses to absorb the costs without suffering economic harm and without adversely affecting competition in the marketplace.

Small businesses will have no need to absorb any costs for the proposed NOx SIP Call rules.

The proposed RACT rules must be met by all affected sources, regardless of whether they are small businesses. By pursuing "Reasonably Available" instead of "Best Available" control technologies in the rules, small businesses should be less likely to suffer economic harm. Any demonstrated economic harm or marketplace competition could be diminished by pursuing an Alternative RACT approval in the proposed rule R 336.1845.

23. Estimate the cost, if any, to the agency of administering or enforcing a rule that exempts or sets lesser standards for compliance by small businesses.

If EGLE implemented a rule that exempts or sets lesser standards for compliance by small businesses, Michigan would not be approved to administer the NO_x SIP Call and, for the proposed RACT rules, would not be adhering to the requirements of the CAA, and would suffer the ramifications of that deficiency. This could potentially result in the loss of federal highway funds allocated to the state, and still leave the businesses vulnerable to the same enforcement by USEPA. Compliance determinations and enforcement costs would be similar regardless of the level/quality of the standard in the final rule.

24. Identify the impact on the public interest of exempting or setting lesser standards of compliance for small businesses.

If small businesses were exempt or held to lesser standards simply by virtue of the size of their business instead of the volume of emissions, there could be negative impacts to the environment and to public health.

25. Describe whether and how the agency has involved small businesses in the development of the proposed rules.

EGLE established workgroups with stakeholders from across industry as well as consultants who represent small businesses. In addition, more businesses were specifically solicited for participation with this rulemaking through a national agency list consisting of approximately 120 recipients.

A. If small businesses were involved in the development of the rules, please identify the business(es).

Small businesses were involved in the development of the proposed rules mainly through consultants representing small business interests. Their involvement was solicited, but no small business representatives, other than consultants and trade organization representatives, participated.

Cost-Benefit Analysis of Rules (independent of statutory impact)

26. Estimate the actual statewide compliance costs of the rule amendments on businesses or groups.

The proposed NO_x SIP Call rules are not expected to have compliance costs, but more likely compliance cost savings. The proposed rules will increase flexibility and allow affected facilities to reduce monitoring costs. Based on feedback from multiple subject facilities, the estimated compliance cost savings is \$10,000 to \$15,000 annually, but much greater when monitoring equipment is replaced every 10 to 15 years. At that time, cost savings could be \$100,000 or more.

It is expected that there will be compliance costs for the proposed RACT rules for businesses that have emitting units. Actual costs would need to be determined on a case-by-case basis given the wide spectrum of affected source types, sizes and uses. A recent survey and analysis (2023) of a broad spectrum of existing sources at 70 facilities conducted by EGLE staff using USEPA methods of cost analysis estimates that control technologies (USEPA's CoST Strategy Tool and Control Cost Manual) should range from approximately \$400 to \$12,000 per ton of NO_x reductions, with approximately two thirds of the facilities in the \$400 to \$1,600/ton range. The analysis indicates a reduction of just over 500 tons of NO_x emissions would cost approximately \$740,000 in total costs in the NAAs. Based on the businesses chosen for the survey, it is estimated this would impact approximately 50% of the applicable sources in the Michigan NAA, but would not affect sources in the remainder of the state. For new sources in the NAA, the costs would be integrated in the cost of the equipment. This being a more cost-effective strategy, the cost per ton of NO_x controlled would be expected to be at the lower end of the \$400 to \$1,600/ton range.

A. Identify the businesses or groups who will be directly affected by, bear the cost of, or directly benefit from the proposed rules.

EGLE expects seven specific facilities would directly benefit from the proposed NO_x SIP Call rules. With these proposed rule changes, they will be able to request alternative testing and monitoring that will be easier and cheaper to conduct.

The types of businesses that utilize the NO_x emitting sources affected by these rules can vary greatly but are often in manufacturing. Existing businesses that are large emitters of criteria pollutants that have NO_x emitting combustion sources will be directly affected by, and bear the cost of, the proposed RACT rules. Those businesses will benefit from having lower emissions from their applicable processes but may incur costs to update or replace the units. Businesses installing new affected sources may require a reasonable increase in the cost of the equipment purchased to meet minimum emission standards.

B. What additional costs will be imposed on businesses and other groups as a result of these proposed rules (i.e. new equipment, supplies, labor, accounting, or recordkeeping)? Please identify the types and number of businesses and groups. Be sure to quantify how each entity will be affected.

No additional costs are expected on businesses as a result of the NOx SIP Call rules. Current recordkeeping and monitoring requirements may be reduced, thereby resulting in cost savings in these areas.

The proposed RACT rules are expected to impose costs on affected sources that are required to change processes, upgrade/replace equipment or add emission control equipment. Given the wide range of possible affected sources and source types, costs would need to be determined on a case-by-case basis, but they are meant to be “reasonable”, as opposed to “best available” or “lowest achievable” as determined by the USEPA. For example, a business with low emissions (0-10 tons per year) needing to simply determine applicability, or lack thereof, could have as little as a one-time \$1,200 consultation cost to document its status. Businesses with modest emissions (10-80 tons per year) could spend \$4,000 on consultation fees and upgrade equipment (\$10,000-\$20,000) to meet requirements.

The areas impacted by this rule are limited to only the NAA. EGLE estimates anywhere from 40 to 200 existing facilities could be impacted by the proposed rules. Based on the current NAA, this number is expected to be much lower, with less than 15 sources being significantly impacted (greater than \$10,000) and less than 100 being minimally impacted (less than \$10,000). Emission reductions are unknown, but one analysis performed by EGLE staff indicated a potential reduction of approximately 500 tons of NOx.

27. Estimate the actual statewide compliance costs of the proposed rules on individuals (regulated individuals or the public). Include the costs of education, training, application fees, examination fees, license fees, new equipment, supplies, labor, accounting, or recordkeeping.

The proposed rules are not expected to impact costs for individuals.

A. How many and what category of individuals will be affected by the rules?

With regard to costs, no individuals are expected to be affected by the proposed rules.

B. What qualitative and quantitative impact do the proposed changes in rules have on these individuals?

With regard to costs, there are no impacts anticipated on individuals from these proposed rules.

28. Quantify any cost reductions to businesses, individuals, groups of individuals, or governmental units as a result of the proposed rules.

For the proposed NOx SIP Call rules, USEPA approval for state implementation authority of the program could result in lower future monitoring costs by increasing monitoring flexibility. This is a highly variable reduction ranging from no savings to \$10,000 to \$15,000 annually depending on the facility and the monitoring path they choose. In addition, future equipment purchase costs are expected to be reduced due to these rules.

The proposed RACT rules are not expected to result in overall cost reductions to businesses, although increased efficiencies could lead to a long-term offset of initial costs, such as fuel cost savings. For groups and individuals, the proposed rule changes are not likely to reduce costs.

29. Estimate the primary and direct benefits and any secondary or indirect benefits of the proposed rules. Please provide both quantitative and qualitative information, as well as your assumptions.

The primary and direct benefits of the proposed NOx SIP Call and RACT rules are improved public health due to the expected decrease in NOx and ozone in the lower atmosphere.

The desired effect of the proposed RACT rules is to lower ozone monitoring values, preferably by 1 to 2 parts per billion (ppb). Also, some requirements of the RACT rules are expected to cause fuel cost savings since NOx emission reductions are often the result of less/more efficient fuel combustion. A secondary benefit of the proposed RACT rules is that Michigan will avoid highway sanctions.

30. Explain how the proposed rules will impact business growth and job creation (or elimination) in Michigan.

The proposed rules are expected to have no impact on business growth and job creation.

31. Identify any individuals or businesses who will be disproportionately affected by the rules as a result of their industrial sector, segment of the public, business size, or geographic location.

The proposed NOx SIP Call rules will impact seven facilities in the state by allowing the USEPA to approve the state's program, which can then increase flexibility for testing and determining compliance.

The proposed RACT rules would only apply to businesses in the NAA but are applied consistently across the NAA, which are defined as part of the CAA regulations but are not aimed at any specific businesses in those areas, however manufacturing facilities are more likely to utilize the equipment impacted by these new rules.

32. Identify the sources the agency relied upon in compiling the regulatory impact statement, including the methodology utilized in determining the existence and extent of the impact of the proposed rules and a cost-benefit analysis of the proposed rules.

The proposed NOx SIP Call rules were minor in nature, had no compliance costs associated with them and therefore didn't necessitate a cost benefit analysis. Two of the seven affected facilities that account for nearly half the subject units were consulted about cost savings.

In estimating the impacts of the proposed RACT rules, an analysis was performed by EGLE staff that utilized all current Air Quality Division databases, including those used for emission reporting and permitting and the previously mentioned methodologies used by the USEPA for cost analysis. The proposed RACT rules reflect several states' regulations around the country, in particular, neighboring states. Approval of RACT rules in other states by the USEPA helped to create a benchmark that EGLE used to establish what impacts are "reasonable" for the regulated community.

A. How were estimates made, and what were your assumptions? Include internal and external sources, published reports, information provided by associations or organizations, etc., that demonstrate a need for the proposed rules.

Two of the seven affected facilities that account for nearly half the subject units were consulted about cost savings regarding the proposed NOx SIP Call rules. It was assumed these sources are representative of all the sources subject to the rules so their assessment of no savings to \$10,000 to \$15,000 depending on the circumstances of each source reflects the analysis.

EGLE was required to implement these proposed RACT rules under the federal CAA, Section 182(b), and while no estimates are required for the federal regulation, an analysis was performed by EGLE staff to determine a range of costs.

Alternative to Regulation

33. Identify any reasonable alternatives to the proposed rules that would achieve the same or similar goals.

The proposed NOx SIP Call rules are requested specifically by the USEPA, therefore the only other alternative to consider was to not make changes. This would conflict with the goal of moving the program from federal to state control.

The proposed RACT rules are required by the federal CAA and are therefore necessary. Other forms of the rules were considered, but the proposed rules are thought to be as understandable and enforceable as possible. Implementation of Best Available Control Technology and Lowest Achievable Emission Rates would achieve same or better results but would likely increase costs and are not required. Neighboring states require similar regulations, and their rules were consulted for comparison and consistency.

A. Please include any statutory amendments that may be necessary to achieve such alternatives.

No statutory amendments are necessary since there are no reasonable alternatives or changes are minor.

34. Discuss the feasibility of establishing a regulatory program similar to that proposed in the rules that would operate through private market-based mechanisms. Please include a discussion of private market-based systems utilized by other states.

A market-based approach would not be approvable by the USEPA. EGLE knows of no other states using a private market-based system, nor can conceive of a system that would meet the requirements of the Clean Air Act.

35. Discuss all significant alternatives the agency considered during rule development and why they were not incorporated into the rules. This section should include ideas considered both during internal discussions and discussions with stakeholders, affected parties, or advisory groups.

No alternatives were considered for the proposed NOx SIP Call rules because they were based on suggestions by the USEPA, which ultimately has the authority to approve the state program.

The proposed RACT rules are based on federal requirements and there are no significant alternatives, other than utilizing more stringent control programs such as Best Available Control Technology (considered equal or better than RACT) or Lowest Achievable Emission Rates, which require the most stringent limits possible.

Additional Information

36. As required by MCL 24.245b(1)(c), please describe any instructions regarding the method of complying with the rules, if applicable.

No additional instructions are needed to comply with the proposed rule revisions.