

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Preliminary Draft Staff Report

Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities

Proposed Rule 429.2 – Startup and Shutdown Exemption Provisions for Oxides of Nitrogen from Electricity Generating Facilities

October 2021

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CHAPTER 1: BACKGROUND

INTRODUCTION

REGULATORY BACKGROUND

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INTRODUCTION

Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities (Rule 1135) applies to RECLAIM NO_x, former RECLAIM NO_x, and non-RECLAIM NO_x electricity generating facilities that are investor-owned electric utilities, publicly owned electric utilities, or have a generation capacity of at least 50 megawatts of electrical power. Rule 1135 is needed for the transition of electricity generating facilities from NO_x REgional CLean Air Incentives Market (RECLAIM) program to a command-and-control regulatory structure and implements Best Available Retrofit Control Technology (BARCT) for electric generating units.

Proposed amendments to Rule 1135 are needed to remove ammonia emission limits that will be addressed during permitting and remove startup and shutdown provisions that will be addressed in Proposed Rule 429.2 – Startup and Shutdown Exemption Provisions at Electricity Generating Facilities (PR 429.2), consistent with other source-specific rules. Additionally, Rule 1135 needs to be amended to reference the recently amended and adopted Rule 218-series rules for continuous emission monitoring systems (CEMS) requirements and modify NO_x emission limits for diesel internal combustion engines on Catalina Island.

PR 429.2 is a companion rule to Rule 1135 and will provide exemptions from NO_x concentration limits during startup and shutdown events to align with United States Environmental Protection Agency (U.S. EPA) policies for startup, shutdown, and malfunction events. Provisions in PR 429.2 will exempt electric generating units from Rule 1135 NO_x emission limits and applicable rolling average provisions during startup and shutdown events and limit the duration of startup and shutdown events and the frequency of scheduled startups. Additionally, PR 429.2 establishes best management practices for startup and shutdown events as well as recordkeeping requirements.

REGULATORY BACKGROUND

Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities Rule 1135 was adopted in 1989 and applied to electric power generating steam boiler systems, repowered units, and alternative electricity generating sources. A NO_x system-wide average emission limit and a daily NO_x emissions cap was established for each utility system. Additionally, Rule 1135 required Emission Control Plans and continuous emissions monitoring systems (CEMS).

Rule 1135 was amended in December 1990 to resolve implementation and enforceability issues raised by the California Air Resource Board. This amendment included accelerated retrofit dates for emission controls, unit-by-unit emission limits, modified compliance plan and monitoring requirements, computerized telemetering, and an amended definition of alternative resources. Rule 1135 was amended again July 1991 to address additional staff recommendations regarding system-wide emission rates, daily emission caps, annual emission caps, oil burning, and cogeneration, along with outstanding issues related to modeling and BARCT analysis. U.S. EPA approved Rule 1135 into the State Implementation Plan (SIP) on August 11, 1998.

In 2018, Rule 1135 was amended to establish BARCT NO_x limits which are needed to transition electric generating facilities in the NO_x RECLAIM program to a command-and-control regulatory structure and to implement Control Measure CMB-05 of the 2016 AQMP and AB 617. The 2018 amendment expanded Rule 1135 applicability to all electric generating units at RECLAIM NO_x, former RECLAIM NO_x, and non-RECLAIM NO_x electricity generating facilities. The

amendment updated emission limits to reflect current BARCT levels and to provide implementation timeframes for boilers, gas turbines, internal combustion engines located on Santa Catalina Island. Additionally, the amendment established provisions for monitoring, reporting, and recordkeeping, and exemptions from specific provisions.

Electricity Generating Facilities and RECLAIM

When RECLAIM was adopted in 1993, pursuant to Rule 2001 electricity generating facilities were initially included in NO_x RECLAIM and could opt-in to SO_x RECLAIM. In June 2000, RECLAIM program participants experienced a sharp and sudden increase in NO_x RECLAIM trading credit (RTC) prices for both the 1999 and 2000 compliance years. Based on the 2000 RECLAIM Annual Report, electricity generating facilities reported approximately 4,400 tons per year over their initial allocation. This was primarily due to an increased demand for power generation and delayed installation of controls by electricity generating facilities. The electric power generating industry purchased a large quantity of RTCs, which depleted the available RTCs. This situation was compounded because few RECLAIM facilities added control equipment. As a result, in May 2001, the Board adopted Rule 2009 – Compliance Plan for Power Producing Facilities (Rule 2009). Rule 2009 required installation of BARCT through compliance plans at electricity generating facilities.

Between 2001 and 2005, more than 35 simple and combined cycle gas turbines were repowered to BARCT levels or below. Despite the increase in NO_x RTC demand, emissions from electricity generating facilities fell from 26 tons per day of NO_x emissions in 1989 to less than 10 tons per day of NO_x emissions by 2005. By 2017, with equipment replacement and increased reliance on renewable sources, NO_x emissions had further decreased to less than 4 tons per day. With the most recent amendment to Rule 1135, NO_x emissions from electricity generating facilities is expected to be 1.8 tons per day by January 1, 2024.

As part of the series of command-and-control rules to establish BARCT NO_x emission limits and to facilitate the transition of the NO_x RECLAIM program, several rules included an ammonia slip limit of 5 ppm for equipment with selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR): 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (Rule 1134), 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, and 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters (Rule 1146). Subsequently, staff decided that addressing ammonia limits during permitting is more appropriate to prevent conflicts with implementing Regulation XIII – New Source Review. South Coast AQMD Rule 1303 – Requirements requires Best Available Control Technology (BACT) for ammonia emissions if pollution control equipment, such as selective SCR or NSCR, is installed to meet a BARCT NO_x limit and results in increased ammonia emissions of one pound per day or more. During permitting, the ammonia limit can be evaluated relative to the NO_x limit in the rule and established at an achievable level for the equipment on a case-by-case basis.

Startup and Shutdown

Under the RECLAIM program, facilities are required to hold sufficient RECLAIM Trading Credits (RTCs) to reconcile actual emissions at the end of each annual compliance cycle, including the emissions that occur during startup and shutdown. A unit and/or associated control equipment is

not operating under steady-state conditions during startup or shutdown, which may result in greater emissions. For example, during startup and shutdown of combustion equipment, the temperature of the unit and/or associated controls is in transition and requires the addition of excess air. This process results in increased NO_x formation.

Under a command-and-control regulatory structure, an owner or operator is required to meet emission limits on each individual piece of equipment on a continuous basis. Consequently, units that can otherwise meet lower NO_x emission limits during steady-state conditions, may be unable to do so during periods of startup and shutdown. Therefore, provisions are needed to exclude emissions that occur during startup and shutdown from compliance determination with rule emission limit(s). Currently, Rule 1135 exempts startup and shutdown from the NO_x emission limits and requires each electric generating unit to include permit limits for duration, mass emissions, and number of start-ups, shutdowns by January 1, 2024. Additionally, many existing electric generating units currently have requirements for startup and shutdown in their permits. Startup, shutdown, and tuning are unique to each unit and evaluated during the permitting process. However, U.S. EPA recommended that startup and shutdown requirements be included in Rule 1135 to facilitate enforceability and ensure SIP approval.

U.S. EPA POLICY ON STARTUP, SHUTDOWN, AND MALFUNCTION

U.S. EPA issued startup, shutdown, and malfunction (SSM) policies in 2015 and 2020, which provided differing guidance on the requirements necessary for SIP approval. On September 30, 2021, U.S. EPA withdrew the 2020 policy and reinstated their prior 2015 policy, citing that the 2015 policy is more consistent with the Clean Air Act and relevant case law¹.

2015 Startup, Shutdown, and Malfunction State Implementation Plan Policy

In 2015, U.S. EPA issued a SSM SIP Policy (80 FR 33840; June 12, 2015) which stated that exemptions from emission limitations during startup and shutdown events and affirmative defense provisions were inconsistent with the federal Clean Air Act (CAA)². U.S. EPA asserted that an emission limitation must be applicable to the source continuously to be permissible in a SIP pursuant to CAA section 302(k). U.S. EPA's 2015 SSM SIP Policy stated that SIP emission limitations do not need to be numerical in format, do not have to apply the same limitation (e.g. numerical level) at all times, and may include alternative numerical limitations, other technological control requirements, or work practice requirements during startup and shutdown events, so long as those components of the emission limitations meet applicable federal CAA requirements.

AFFECTED FACILITIES AND EQUIPMENT

There are 133 units at 32 electricity generating facilities that are potentially impacted by PAR 1135 and PR 429.2. Table 1-1 contains the equipment affected by PAR 1135 and PR 429.2.

¹ <https://www.epa.gov/system/files/documents/2021-09/oar-21-000-6324.pdf>

² <https://www.govinfo.gov/content/pkg/FR-2015-06-12/pdf/2015-12905.pdf#page=2>

Table 1-1: PAR 1135 and PR 429.2 Affected Equipment

Equipment Type	Number of Units
Boilers	17
Combined Cycle Gas Turbines	26
Combined Cycle Gas Turbine-Associated Duct Burners	11
Diesel Internal Combustion Engines	6
Simple Cycle Gas Turbines	73

PUBLIC PROCESS

Development of PAR 1135 and PR 429.2 was conducted through a public process. South Coast AQMD held two remote Working Group Meetings on May 28, 2021 and September 15, 2021. The Working Group is composed of representatives from affected facilities, environmental groups, public agencies, and consultants. The purpose of the Working Group Meetings is to discuss proposed concepts and work through the details of staff's proposals. A Public Workshop will be held on October 27, 2021. Additionally, staff met individually with several facility operators.

**CHAPTER 2: SUMMARY OF PROPOSAL FOR PROPOSED AMENDED
RULE 1135**

INTRODUCTION

PROPOSED AMENDED RULE 1135

INTRODUCTION

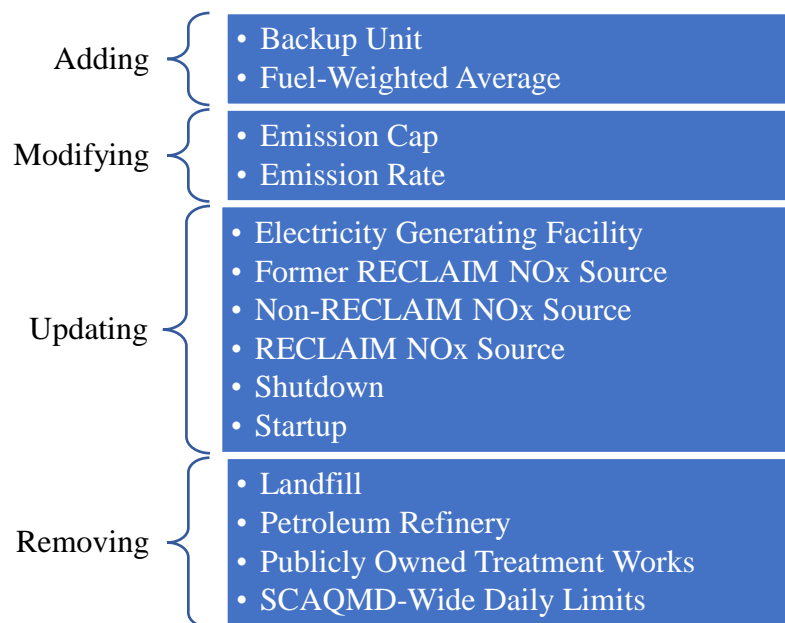
Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities (PAR 1135) will remove ammonia emission limits and move startup and shutdown provisions to Proposed Rule 429.2 – Startup and Shutdown Exemption Provisions at Electricity Generating Facilities (PR 429.2) to be consistent with policy changes that have been implemented after the last amendment of Rule 1135. Additionally, PAR 1135 will reference the recently amended and adopted Rule 218-series rules for continuous emission monitoring systems (CEMS) requirements. PAR 1135 also proposes to revise the NO_x emission limits for diesel internal combustion engines and include other amendments to provide additional clarifications.

PROPOSED AMENDED RULE 1135

Definitions (Subdivision (c))

PAR 1135 includes new, modified, updated, and removed definitions, as listed in Figure 2-1.

Figure 2-1: Proposed Definition Revisions



Backup Unit (paragraph (c)(2))

PAR 1135 includes a provision, paragraph (e)(3), addressing monitoring, reporting, and recordkeeping requirements when NO_x process units currently subject to Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions (Rule 2012) exit the RECLAIM program and become applicable to Rule 1135 monitoring, reporting, and recordkeeping requirements. A term for these units, “Backup Unit,” is added and is defined as:

Any NOx emitting turbine used intermittently to produce energy on a demand basis, that does not operate more than 1,300 hours per year, is not subject to 40 CFR Part 72, and was a NOx process unit prior to the facility becoming a former RECLAIM NOx facility.

This term is based on the definition of “NOx Process Unit” in Rule 2012 and “Peaking Unit” in Rule 2012 Attachment F – Definitions. Per Rule 2012 paragraph (e)(1) a “NOx Process Unit” is any NOx emitting equipment and includes “Peaking Units.” Rule 2012 Appendix E defines “Peaking Unit” as a turbine used intermittently to produce energy on a demand basis and does not operate more than 1,300 hours per year. In addition, 40 CFR Part 72 (Acid Rain Program) is added into the definition since units in the Acid Rain Program are required to follow specific monitoring, reporting, and recordkeeping requirements. Lastly, the definition requires that Backup Units were categorized as NOx process units when in the RECLAIM program, which is added to ensure that no units that currently have CEMS utilize paragraph (e)(3).

Fuel-Weighted Average (paragraph (c)(12))

PAR 1135 revises the NOx emission limit rolling average provision for the diesel internal combustion engines on Santa Catalina Island to be a fuel-weighted average.

$$\text{Fuel-Weighted Average} = \frac{\sum \text{NOx Concentration (ppmv)} \times \text{Fuel Use (gallons)}}{\text{Total Fuel Use (gallons)}}$$

For example, when the NOx concentration and fuel usages are as follows: Hour 1: 55 ppmv, 100 gallons, Hour 2: 25 ppmv, 50 gallons, and Hour 3: 33 ppmv, 60 gallons, the fuel-weighted average is 42 ppmv.

$$\text{Fuel-Weighted Average} =$$

$$\frac{(55 \text{ ppmv} \times 100 \text{ gallons}) + (25 \text{ ppmv} \times 50 \text{ gallons}) + (33 \text{ ppmv} \times 60 \text{ gallons})}{(100 \text{ gallons} + 50 \text{ gallons} + 60 \text{ gallons})}$$

Emission Cap, Emission Rate, and SCAQMD-Wide Daily Limits (paragraphs (c)(10) and (c)(11) and former paragraph (c)(20))

To streamline the rule language in paragraph (d)(4) for City of Glendale where emissions caps or emissions rates are required, “SCAQMD-Wide Daily Limits” is removed and the terms embedded within that definition, “Emission Cap” and “Emission Rate,” are made their own definitions. In the “Emission Rate” definition, the provision regarding emissions from startup and shutdown is moved to the applicable requirement in clause (d)(4)(A)(i).

Electricity Generating Facility, Landfill, Petroleum Refinery, and Publicly Owned Treatment Works (paragraph (c)(9) and former paragraphs (c)(13), (c)(16), and (c)(18))

“Electricity Generating Facility” is updated to reference the applicable South Coast AQMD rules for landfills (Rule 1150.3 – Emissions of Oxides of Nitrogen from Combustion Equipment at Landfills), petroleum refineries (Rule 1109.1 – Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Operations), and publicly owned treatment works (Rule 1179.1 – Emission Reductions From Combustion Equipment at Publicly Owned Treatment Works Facilities) that are

not applicable to Rule 1135. During the last amendment for Rule 1135, these rules were not yet adopted, so the rule language referenced the industry instead. With the updated “Electricity Generating Facility” definition, the definitions for “Landfill,” “Petroleum Refinery,” and “Publicly Owned Treatment Works” are obsolete and therefore removed.

Former RECLAIM NOx Source, Non-RECLAIM NOx Source, and RECLAIM NOx Source (paragraphs (c)(14), (c)(17), and (c)(20))

The terms “Former RECLAIM NOx Source,” “Non-RECLAIM NOx Source,” and “RECLAIM NOx Source” replaced “Source” with “Facility” and were aligned with the definitions in Rule 1100 – Implementation Schedule for NOx Facilities for consistency.

Shutdown and Startup (paragraphs (c)(21) and (c)(23))

PAR 1135 moves startup and shutdown provisions to PR 429.2, which will regulate startup and shutdown events for electric generating units. The “Shutdown” and “Startup” definitions are revised to reference PR 429.2 for the definition.

Emissions Limits (Subdivision (d))

Reference to Rule 2001 (paragraphs (d)(1) and (d)(2))

Rule 2001 – Applicability was last amended in July 2019 and one of the amendments was to update Table 1. Therefore, the rule language referencing Rule 2001 in paragraphs (d)(1) and (d)(2) are now obsolete and removed from PAR 1135.

Removal of Ammonia Limits (Tables 1 and 2)

As mentioned in Chapter 1, to align with policy changes regarding ammonia emissions, the ammonia emission limits in Table 1 and Table 2 are removed.

Emissions Limits for Diesel Internal Combustion Engines (paragraph (d)(2))

Currently Rule 1135 requires diesel internal combustion engines meet the emissions limits in Table 2 by January 1, 2024 with an option of an extension up to three years. Table 2 specifies that diesel internal combustion engines meet a NOx emission limit of 45 ppmv at 15 percent O₂, averaged over a 60-minute rolling average. This limit was derived from the U.S. EPA’s Regulation for Emissions from Heavy Equipment with Compression-Ignition (Diesel) Engines Tier 4 Final emission standard of 0.67 g/kWh or 0.50 g/bhp-hr with an assumed engine efficiency of 40 percent. To determine an engine’s NOx emissions, the Tier 4 Final certification test measures the NOx emissions at five different operating loads (10, 25, 50, 75, and 100 percent) and then averages those results.

Based on discussions with Southern California Edison (SCE), all six diesel internal combustion engines on Santa Catalina Island will be replaced with U.S. EPA Tier 4 Final-Certified diesel engines to meet Rule 1135 emissions limits. SCE plans to install three different engine sizes: 1) 2,200 bhp engine driving a 1,365 kW generator, 2) 3,280 bhp engine driving a 1,825 kW generator, and 3) 4,060 bhp engine driving a 2,500 kW generator.

The replacement engines meet the emissions limits in Table 2 of the rule except for the 45 ppmv NOx emission limit. Based on test data provided by the manufacturer, these replacement engines cannot meet NOx emission limit under two test loads. The first is for the 2,200 bhp engine driving

a 1,365 kW generator and 3,280 bhp engine driving a 1,825 kW generator, at 10 percent load. The second is for the 4,060 bhp engine driving a 2,500 kW generator at 100 percent load. However, the manufacturer indicated that these replacement engines can meet 45 ppmv NO_x at all other tested loads.

Rule 1135 requires that engines meet the 45 ppmv NO_x emission limit on a continuous basis. To address this issue of the two instances where the replacement engines cannot meet 45 ppmv NO_x, PAR 1135 revises the rolling average provision for the 45 ppmv NO_x emission limit. The rolling average will be changed to a fuel-weighted average and averaged over a three-hour rolling period. The longer rolling average will allow time for the NO_x emissions to smooth out. The fuel-weighted average allows for the NO_x ppmv calculation to account for fuel usage over a certain NO_x concentration. As the limit is still 45 ppmv at 15 percent oxygen, no NO_x emission increases are expected.

Lastly, for consistency with the test methods required to certify diesel engines to the Tier 4 Final particulate matter (PM) emission standard pursuant to 40 CFR Part 1065 – Engine-Testing Procedures and the required test methods pursuant subparagraph (e)(5)(B), PAR 1135 adds a footnote to Table 2 clarifying that the 0.0076 lbs/mmbtu particulate matter emission limit applies to both filterable and condensable particulate matter.

Startup, Shutdown, and Tuning Requirements (former paragraph (d)(3))

PAR 1135 removes startup and shutdown provisions in paragraph (d)(3) which will now be addressed in PR 429.2.

Alternative Compliance Approach for Electric Generating Units Located on Santa Catalina Island (former paragraph (d)(4))

SCE has informed staff that their plan is to replace the Santa Catalina Island diesel internal combustion engines with new Tier 4 Final-certified engines to meet the emission limits in paragraph (d)(2) and do not intend to pursue the alternative compliance approach in paragraph (d)(4). Therefore, PAR 1135 removes paragraph (d)(4) as the alternative compliance approach of meeting a NO_x mass emission will not be used by SCE.

To align with the removal of former paragraph (d)(4), PAR 1135 removes all requirements and rule language in reference to former paragraph (d)(4).

Time Extensions (paragraph (d)(3))

To be approved for a time extension up to three years to meet the emissions limits in Table 2, former clause (d)(3)(A)(i) requires that Santa Catalina Island, by January 1, 2023, must have replaced a minimum of two diesel internal combustion engines, excluding units already near the emissions limits that are exempt under paragraph (g)(3). Based on discussions with SCE, the first two replacement engines are likely to be installed and begin operation later than January 1, 2023 due to the permitting process and construction schedule. To allow flexibility for compliance with the emissions limits, PAR 1135 revises the time extension criteria. The new criteria for the time extension will require the facility to limit their emissions to 55 tons of NO_x for compliance year 2023 and each compliance year thereafter until compliance with Table 2 emissions limits are achieved. The intent of the time extension was to realize some NO_x reductions upfront, rather than

wait until the extended deadline. Although the facility cannot install the two replacement engines by January 1, 2023, the facility can reduce NOx by the same amount as if the engines have been replaced. In 2016, the facility's six diesel internal combustion engines emitted 69 tons of NOx. Assuming the facility was replacing two of the existing units, the NOx reductions from those two units would be approximately 14 tons per year. Therefore, the new provision limits the facility to 55 tons per year.

If there is a delay in installing the replacement engines by the end of the three-year extension timeline due to unforeseen circumstances (e.g. lengthy permitting process, weather events disrupting construction schedule), PAR 1135 adds a provision allowing the facility to request a one-time additional 12-month extension to meet the emissions limits. To be approved for the additional 12-month extension, the reason(s) for needing the additional extension must be outside the facility's control, permit applications must have been submitted 365 days before January 1, 2024 or the deadline for an extension granted pursuant to subparagraph (d)(3)(A) for each replacement engine that would need the additional time extension, and the facility must limit their emissions to 35 tons of NOx for compliance year 2027. If the facility cannot complete all engine replacements by January 1, 2027, the facility can reduce NOx by the same amount as if the engines have been replaced. Assuming all engines, excluding one unit currently exempt due to being near the 45 ppmv NOx emission limit, were replaced, the NOx reductions from those five units would be approximately 34 tons per year. Therefore, the criteria to qualify for the additional time extension includes the facility limiting NOx emissions to 35 tons per year.

City of Glendale (paragraph (d)(4))

The provision regarding startup and shutdown emissions in the "Emissions Rate" definition (former subparagraph (c)(20)(B)) is moved to the emission rate requirement in clause (d)(4)(A)(i).

Monitoring, Recordkeeping, and Reporting (Subdivision (e))

Former RECLAIM NOx and Non-RECLAIM NOx Facilities (paragraph (e)(2) and former paragraph (e)(3))

In March 2021, South Coast AQMD Rule 218-series rules addressing Continuous Emissions Monitoring Systems (CEMS) were amended and adopted to align CEMS requirements for former RECLAIM and non-RECLAIM facilities. As RECLAIM facilities exit the RECLAIM program, these facilities will be transitioned from South Coast AQMD Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions to Rules 218.2 – Continuous Emission Monitoring System: General Provisions and 218.3 – Continuous Emissions Monitoring System: Performance Specifications. Additionally, non-RECLAIM facilities will be transitioned from Rules 218 – Continuous Emission Monitoring and 218.1 – Continuous Emission Monitoring Performance Specifications to Rules 218.2 and 218.3. Paragraph (e)(2) now specifies that former RECLAIM NOx and non-RECLAIM NOx facilities follow Rules 218.2 and 218.3 and removes all Rule 2012 references. Former paragraph (e)(3) containing CEMS requirements for non-RECLAIM NOx sources is also removed. Rules 218.2 and 218.3 provide an implementation schedule for facilities operating CEMS previously certified to Rules 218 and 218.1 or Rule 2012. Therefore, requirements to follow 40 CFR Part 75 – Continuous Emission Monitoring and Rules 218 and 218.1 are retained and moved to paragraph (e)(2) until the applicable implementation dates set forth in Rules 218.2 and 218.3.

Backup Units (paragraph (e)(3))

Staff has identified one RECLAIM NO_x facility that operates two turbines, which are currently NO_x process units in the facility's RECLAIM/Title V Permit. Rule 2012 does not require process units to have a CEMS installed. Furthermore, the two units are simple cycle turbines each rated less than 25 megawatts and installed before November 15, 1990, making them not subject to the Acid Rain Program under 40 CFR Part 72 – Permits Regulation, which requires electric generating units to conduct continuous emission monitoring pursuant to 40 CFR Part 75.

Currently, Rule 1135 requires CEMS for all electricity generating units at former RECLAIM NO_x and non-RECLAIM NO_x facilities. Once a facility exits RECLAIM, units that were RECLAIM NO_x process units, referred to as “Backup Units” in PAR 1135, will be required to have a CEMS. PAR 1135 maintains this requirement and will require former RECLAIM NO_x facilities to follow Rule 218-series rules and operate CEMS. To allow sufficient time to implement Rule 218-series rules for the backup units after exiting RECLAIM, PAR 1135 will allow the backup units until July 1, 2026 to install CEMS, provided that the owner or operator does the following for each backup unit:

- 1) (subparagraph (e)(3)(A)) Measure quarterly fuel usage by installing, maintaining, and operating a totalizing fuel meter or any device approved by Executive Officer to be equivalent in accuracy, reliability, reproducibility, and timeliness. Fuel usage is necessary to calculate the NO_x emissions by multiplying the fuel usage by the emission factor specified in the Permit to Operate;
- 2) (subparagraph (e)(3)(B)) Demonstrate compliance with Table 1 limits by conducting annual source testing using the following test methods: South Coast AQMD Method 100.1 – Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling, South Coast AQMD Method 7.1 – Determination of Nitrogen Oxide Emissions from Stationary Sources, U.S. EPA Method 20 – Nitrogen Oxides from Stationary Gas Turbines, or U.S. EPA Method 7E – Nitrogen Oxide – Instrumental Analyzer;
- 3) (subparagraph (e)(3)(C)) Conduct the first source test either within six months from the time the facility becomes a former RECLAIM NO_x facility or within one year from the date of the last source test, whichever is later;
- 4) (subparagraph (e)(3)(D)) At least 60 days before the scheduled source test date, submit a source test protocol to the Executive Officer for written approval. Source test protocols establish procedures to ensure results are accurate and representative of a source's emissions. The source test protocol must contain:
 - a. Descriptions of the unit to be tested and process, including maximum and normal operating temperatures, pressures, and throughput;
 - b. Operating conditions, such as operating turbine loads and test duration at each load, under which the source test will be conducted;
 - c. Planned sampling parameters, including a process schematic diagram showing the ports and sampling locations, with the dimensions of ducts and stacks at the sampling locations and distances of flow disturbances (e.g. elbows, tees, fans, dampers) from the upstream and downstream sampling locations;
 - d. Description of test, sampling, and analytical methods used to measure NO_x, temperature, flow rates, and moisture;

- e. Description of calibration and quality assurance procedures; and
 - f. Information on equipment, logistics, personnel, and other resources necessary to conduct an efficient and coordinated source test;
- 5) (subparagraph (e)(3)(E)) In lieu of submitting a source test protocol, the facility may use a previously approved source test protocol if: the unit has not been altered to where a permit modification is required; the permit NO_x emission factors or concentration limits or equipment-specific or category-specific NO_x emission rates have not changed since the previous test; and the approved source test protocol is representative of the operation and configuration of the unit, meets the source test protocol requirements provided in subparagraph (e)(3)(D), and references the test method required in subparagraph (e)(3)(B);
 - 6) (subparagraph (e)(3)(F)) Within 30 days after the end of the first three quarters and 60 days after the end of the fourth quarter of the compliance year, submit a quarterly report of NO_x mass emissions to the Executive Office, using a South Coast AQMD-approved format, as calculated using the emission factor specified in the Permit to Operate;
 - 7) (subparagraph (e)(3)(G)) Annually tune-up according to the manufacturer's specifications;
 - 8) (subparagraph (e)(3)(H)) Maintain records on-site for 5 years and make available to South Coast AQMD upon request: data collected and calibration records from the totalizing fuel meter or the South Coast AQMD-approved device; source test protocols and reports; quarterly NO_x mass emission reports, including the data used to calculate the NO_x mass emissions; and each tune-up; and
 - 9) (subparagraph (e)(3)(I)) Within six months of becoming a former RECLAIM NO_x facility, submit a permit application to limit the total annual operation time of the backup unit to no more than 1,300 hours per year to ensure only backup units, as defined in PAR 1135, can utilize this provision.

The proposed requirements for backup units in lieu of installing and operating CEMS are the current monitoring, recordkeeping, and reporting requirements for these units. The requirements are specified in the facility's current Title V/RECLAIM permit and are pursuant to Rule 2012 subdivision (e) – NO_x Process Unit.

Diesel Internal Combustion Engines (paragraph (e)(5))

Submitting a source test protocol for South Coast AQMD approval is the first step of source testing. For consistency with paragraph (e)(3), PAR 1135 paragraph (e)(5) adds source test protocol submittal requirements for source testing of diesel internal combustion engines. Subparagraph (e)(5)(C) references subparagraph (e)(3)(D) for the information to be included in the source test protocol. Subparagraph (e)(5)(D) references subparagraph (e)(3)(E) for the option to use a previously approved source test protocol in lieu of submitting a new protocol.

Catalytic and Non-Catalytic Control Devices with Ammonia Injection (paragraph (e)(6))

Currently, Rule 1135 only refers to source testing or continuous monitoring of ammonia for catalytic control devices. PAR 1135 paragraph (e)(6) adds non-catalytic control devices with ammonia injection to ensure source testing or continuous monitoring of ammonia emissions requirements apply to all electric generating units that emit ammonia.

Exemptions (Subdivision (g))***Once-Through-Cooling Electric Generating Units to Be Retired (paragraph (g)(2))***

Current Rule 1135 exempts once-through-cooling electric generating units that are subject to the Clean Water Act Section 316(b) from the emissions limits in paragraph (d)(1) under the conditions that the units keep their NO_x and ammonia limits, startup, shutdown, and tuning requirements, and averaging times on the current permit and the units comply with their compliance dates established pursuant to Table 1 of Section 2(B) of the State Water Resources Control Board's Statewide Water Quality Control Policy on the Use of Coastal Estuarine Waters for Power Plant Cooling (Once-Through-Cooling Policy) implementing Section 316(b) of the Clean Water Act. This exemption was included with the understanding that the electric generating units subject to the Once-Through-Cooling Policy were scheduled for shutdown or retirement by these compliance dates. However, industry representatives notified staff that some once-through-cooling electric generating units may no longer be retired and only have their once-through-cooling systems removed. PAR 1135 paragraph (g)(2) clarifies that the exemption from paragraph (d)(1) applies to once-through-cooling units to be retired and requires in subparagraph (g)(2)(A) that the owner or operator must retire the unit by the compliance date established in the Once-Through-Cooling Policy to qualify for the exemption. Former subparagraph (g)(2)(D), which states that the owner or operator just comply with the compliance date established in the Once-Through-Cooling Policy, is removed to minimize duplication with subparagraph (g)(2)(A). An owner or operator of a once-through-cooling unit that will just remove the once-through-cooling system to comply with the policy are expected to comply with the emissions limits in paragraph (d)(1). Additionally, the exemption will now have a sunset date of December 31, 2029. This provision limits the amount of time that these units are allowed operate with NO_x emissions greater than the NO_x emission limits in Table 1.

CHAPTER 3: SUMMARY OF PROPOSAL FOR PROPOSED RULE 429.2

INTRODUCTION

PROPOSED RULE 429.2

INTRODUCTION

PR 429.2 will establish startup and shutdown provisions for Rule 1135 electricity generating facilities. PR 429.2 will exempt electric generating units from Rule 1135 NO_x emission limits during startup and shutdown events and establish startup and shutdown duration and frequency provisions. Additionally, PR 429.2 establishes best management practices during startup and shutdown events and recordkeeping requirements.

PROPOSED RULE 429.2

Purpose (Subdivision (a))

The purpose of this rule is to provide an exemption from Rule 1135 emission limits during periods when electric generating units are starting up and shutting down and establish requirements during startup and shutdown events. PR 429.2 is needed to regulate startup and shutdown pursuant to U.S. EPA SSM SIP Policy (80 FR 33840; June 12, 2015) regulating startups, shutdowns, and malfunctions.

Applicability (Subdivision (b))

PR 429.2 applies to an owner or operator of electric generating units subject to Rule 1135 at electricity generating facilities.

Definitions (Subdivision (c))

PR 429.2 incorporates definitions from Rule 1135 and other South Coast AQMD startup and shutdown rules to be proposed or amended as well as new definitions specific to the proposed rule. Please refer to PR 429.2 subdivision (d) for each definition.

Proposed Definitions:

- Boiler Cold Start
- Boiler Non-Cold Start
- Electric Generating Unit
- Electricity Generating Facility
- Minimum Operating Temperature
- NO_x Post-Combustion Control Equipment
- Oxides of Nitrogen (NO_x) Emissions
- Scheduled Startup
- Shutdown
- Stable Conditions
- Startup

Startup and Shutdown (paragraphs (c)(11) and (c)(9))

To develop the definitions for startup and shutdown, staff modified “Startup” and “Shutdown” definitions in Rule 1135 to fit all equipment types subject to Rule 1135. Staff reviewed startup and shutdown definitions in current permits and worked with stakeholders to address concerns.

“Startup” is defined as:

The time period beginning when an electric generating unit begins combusting fuel after a period of zero fuel flow.

Combusting fuel after a period of zero fuel flow could mean initial firing of fuel in the gas turbine combustors or to the burner in a boiler, or when fuel is first sprayed into the hot compressed air at a measured rate to ignite the fuel in a diesel engine. Since PR 429.2 will limit the duration of startups in paragraphs (d)(2), (d)(3), and (d)(4), the ending of a startup will be imposed as when the time limit specified in these paragraphs is reached.

“Shutdown” is defined as:

The time period that begins either when an electric generating unit begins reducing load and the flue gas temperatures fall below the minimum operating temperature of the NOx post-combustion control equipment, if applicable, and ends in a period of zero fuel flow.

Shutting down an electric generating unit starts by reducing load, which results in reduced combustion temperature, lower stack flow rate, and increased NOx formation. For units with NOx post-combustion control, the control equipment does not work when exhaust temperatures drop below minimum operating temperatures of the control equipment. The ending of a shutdown is generalized as when there is a period of zero fuel flow, which means the unit is no longer combusting fuel. A period of zero fuel flow could mean cessation of firing in the gas turbine combustors or the fuel is shut off to the burner in a boiler or to the compressed air cylinder in a diesel engine.

Scheduled Startup (paragraph (c)(8))

PR 429.2 limits the frequency of scheduled startup events in paragraph (d)(5). Since electric generating units need to start up at any moment in time and may startup several times per day to meet energy demand without prior notice, only scheduled startups are limited in frequency. Staff modified the definition for “Scheduled Startup” from Rule 429 – Start-up and Shutdown Exemption Provisions for Oxides of Nitrogen to include types of startup events specific to electricity generating facilities that would not be considered scheduled and defined “Scheduled Startup” as:

A planned startup that is specified by January 1 of each year. A scheduled startup does not include a startup to meet energy demand, perform unplanned maintenance, or correct equipment failure, breakdown, or malfunction.

Scheduled startups include, but are not limited to, those planned for maintenance, turnaround (catalyst changeout), testing, tuning, or construction. A startup is only considered a scheduled startup if it is known and specified by January 1 of each year.

Boiler Cold Start and Boiler Non-Cold Start (paragraphs (c)(1) and (c)(2))

PR 429.2 paragraph (d)(2) proposes two startup duration limits for boilers based on cold and non-cold startup conditions, which are distinguished by the length of time a boiler has been shut down. The term “Boiler Cold Start” is defined as:

The condition of a boiler startup occurring after a boiler has been shut down for 120 hours or more.

The term “Boiler Non-Cold Start” is defined as:

The condition of a boiler startup occurring after a boiler has been shut down for less than 120 hours or put in hot standby.

These terms are based on U.S. EPA’s definitions of cold, warm, and hot startups for boilers during their 2015 proposed reconsideration of the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters in 40 CFR Part 63³. Hot standby refers to when the igniters are on and fuel flow is minimal, but no electricity is being generated.

Minimum Operating Temperature and Stable Conditions (paragraphs (c)(6) and (c)(11))

PR 429.2 proposes various requirements to minimize emissions during startup and shutdown events. To provide clarification for the definition of shutdown (paragraph (c)(9)) and compliance determination with paragraphs (d)(4), (d)(8), and (e)(2), which ensure that NO_x post-combustion control equipment are operating efficiently and effectively, a definition for “Minimum Operating Temperature” is defined as:

The minimum operating temperature specified by the manufacturer, or as otherwise defined in the South Coast AQMD Permit to Construct or Permit to Operate.

To provide clarification for compliance determination with paragraph (d)(4), which ensures that electric generating units no longer exceed Rule 1135 emission limits once stable conditions is reached, a definition for “Stable Conditions” is added and is defined as:

The fuel flow to an electric generating unit is consistent and allows for normal operations.

Requirements (Subdivision (d))

PR 429.2 establishes provisions for startup and shutdown duration, frequency of scheduled startups, and best management practices during startup and shutdown events. To synchronize these requirements with the current requirement in Rule 1135, PR 429.2 establishes an effective date of January 1, 2024 for many of the startup and shutdown provisions.

Exemption from Rule 1135 (paragraph (d)(1))

Paragraph (d)(1) specifies that Rule 1135 emission limits do not apply during startup and shutdown. This exemption is necessary because NO_x post-combustion control equipment cannot be utilized until an electric generating unit is at specific conditions and is stable. However, during

³ https://www.cibo.org/wp-content/uploads/2014/07/CIBO_ACC_AMP_BMACT_2015_Recon_Comments.pdf

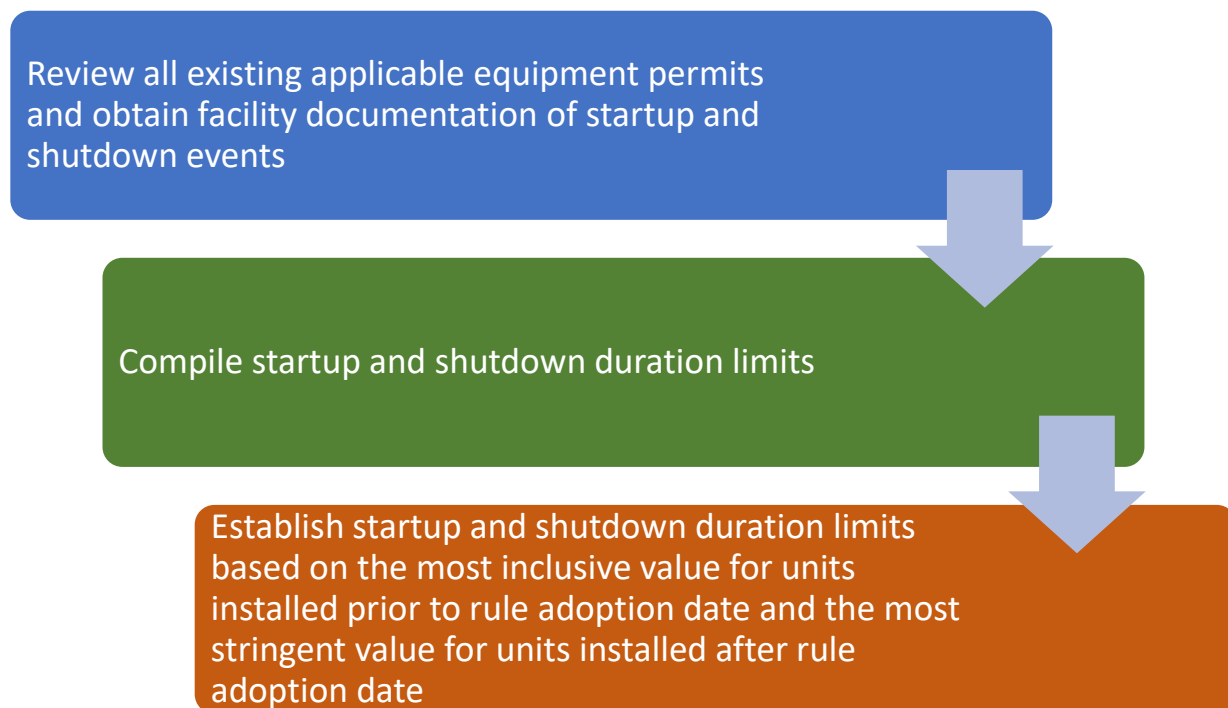
startup and shutdown events, an owner or operator of an electric generating unit will be subject to the provisions in PR 429.2.

Startup and Shutdown Duration Limits (paragraphs (d)(2), (d)(3), and (d)(4))

To limit the exceedance of the Rule 1135 emissions limits during startup and shutdown, PR 429.2 requires that the startup and shutdown of an electric generating unit not exceed a time duration. PR 429.2 establishes two sets of startup and shutdown duration limits based on the date of installation of the electric generating unit.

To establish the duration limits, staff reviewed existing duration limits established in permits and any available facility data documenting startup and shutdown events. Staff then compiled these limits and established startup and shutdown duration limits for each equipment type based on two types of values: the most inclusive value and the most stringent value. The most-inclusive duration limit would apply to existing units. The existing units in an equipment category have major variations or outliers for startup or shutdown duration, due to factors such as equipment age or complexity of the equipment configuration. The most-stringent duration limit would apply to new units and ensures that new units do not follow less stringent startup and shutdown duration limits. Figure 3-1 summarizes the approach for establishing startup and shutdown duration limits.

Figure 3-1: Approach for Establishing Startup and Shutdown Duration Limits



Effective January 1, 2024, paragraph (d)(2) establishes startup and shutdown duration limits for electric generating units installed prior to the rule adoption date. PR 429.2 Table 1 (Table 3-1 in Staff Report) contains the startup and shutdown duration limits for each equipment type.

Two startup duration limits for boilers are established based on either cold or non-cold start, which are defined in paragraphs (c)(1) and (c)(2). Startup of a boiler that has been shut down for 120 hours or more takes a longer time than startup of a boiler that has been shut down for less hours

because the boiler has to be brought up to normal operating temperature from a cold or ambient temperature. Startup of a boiler that has been shut down for less than 120 hours or put in hot standby takes a shorter time as the unit is still at an elevated temperature.

Table 3-1: Startup and Shutdown Limits for Electric Generating Units Installed Prior to Date of Rule Adoption

Equipment Type	Time Allowance	
	Startup	Shutdown
Boiler	Boiler Cold Start: 24 hours	12 hours
	Boiler Non-Cold Start: 12 hours	
Combined Cycle Gas Turbine and Associated Duct Burner	6 hours	2 hours
Simple Cycle Gas Turbine	1 hour	45 minutes
Diesel Internal Combustion Engines	1 hour	30 minutes

Effective upon rule adoption, paragraph (d)(3) establishes startup and shutdown duration limits for electric generating units installed on or after the rule adoption date. PR 429.2 Table 2 (Table 3-2 in Staff Report) contains more stringent startup and shutdown duration limits than Table 1 in paragraph (d)(2) for each equipment type since these units will be newer technology with faster startup and shutdown times. No startup or shutdown duration limits for boilers are proposed due to the expectation that there would be no new boilers as electricity generating facilities are choosing to repower old units with gas turbines, which have faster startup times, smaller footprints, and lower operating and maintenance costs.

Table 3-2: Startup and Shutdown Limits for Electric Generating Units Installed On or After Date of Rule Adoption

Equipment Type	Time Allowance	
	Startup	Shutdown
Combined Cycle Gas Turbine and Associated Duct Burner	60 minutes	30 minutes
Simple Cycle Gas Turbine	15 minutes	10 minutes
Diesel Internal Combustion Engines	30 minutes	30 minutes

If a unit has permit conditions which specify more stringent startup or shutdown duration limits than PR 429.2, the unit must follow the limits in the permit conditions. Situations where the owner or operator of a unit has initiated a startup of a unit but then has to shut down the unit (i.e., an aborted startup) and start up the unit again, will be addressed in the permit conditions of the unit. Additionally, startup duration limits established in paragraphs (d)(2) and (d)(3) also apply to scheduled startups.

Effective January 1, 2024, to further limit exceedances of the Rule 1135 emission limits, paragraph (d)(4) requires that startup times cannot last longer than the time necessary to reach stable conditions or the minimum operating temperature of the NO_x post-combustion control. If a unit reaches stable conditions and the minimum operating temperature of the NO_x post-combustion control equipment is reached before reaching the startup duration limit specified in paragraphs (d)(2) or (d)(3), the startup period is considered to be over, and the unit is required to meet applicable Rule 1135 emission limits.

Limit to the Number of Scheduled Startups (paragraph (d)(5))

Effective January 1, 2024, paragraph (d)(5) limits the number of scheduled startups to two events per calendar year for each electric generating unit. Limitations to the number of scheduled startups is an existing requirement in Rule 429 and is carried forward into PR 429.2. Furthermore, limiting the frequency of scheduled startups provides additional bounds to the startup and shutdown provisions. Since electric generating units undergo much more frequent unscheduled startups than scheduled startups, the maximum number of scheduled startups is limited to two. Unscheduled startups are not limited by PR 429.2 because they may be driven by operational demand dependent on energy grid requirements, emergencies, or maintenance needs. The number of scheduled startups will count toward the number of total startups.

General Duty Requirements (paragraph (d)(6))

Upon rule adoption, paragraph (d)(6) requires that an owner or operator of an electric generating unit that exceeds applicable Rule 1135 emission limits during startup and shutdown events to take all reasonable and prudent steps to minimize emissions to meet applicable emission limits. This provision was modified from an existing Rule 429 provision. Reasonable and prudent steps to minimize emissions include, but are not limited to, equipment repairs and adjusting the temperatures of post-combustion controls.

Requirements for Units with NO_x Post-Combustion Control Equipment (paragraphs (d)(7) and (d)(8))

Effective January 1, 2024, paragraph (d)(7) requires each electric generating unit with NO_x post-combustion control equipment to install and maintain a temperature measuring device that is calibrated annually at the inlet of the NO_x post-combustion control equipment. Temperature measuring devices include thermocouples and temperature gauges. Most existing units with NO_x post-combustion control equipment are already equipped with temperature measuring devices. It is standard practice to include a temperature measuring device requirement for units with NO_x post-combustion control equipment in South Coast AQMD permits, and any future units would be expected to install and maintain a temperature measuring device through the permitting process. A temperature measuring device is necessary to determine the temperature of the gas stream entering the NO_x post-combustion control equipment and when the catalyst in the NO_x post-combustion control equipment will effectively control NO_x emissions.

Also effective January 1, 2024, paragraph (d)(8) requires the operation of NO_x post-combustion control equipment during startup and shutdown events, including the injection of any associated chemical reagent into the exhaust stream to control NO_x, if the temperature of the gas to the inlet of the emission control system is greater than or equal to the minimum operating temperature. This provision ensures that NO_x emissions begin to be controlled as soon as the post-combustion control is ready to effectively operate.

Recordkeeping (Subdivision (e))

Records assist in verifying compliance with Rule 429.2. Paragraph (e)(1) provides recordkeeping requirements for owners and operators of electric generating units. Records are required to be maintained on-site for 5 years and made available to the South Coast AQMD upon request. The provision in subparagraph (e)(1)(A) requires a list of scheduled startups, including date, time, reason for the scheduled shutdown, and any changes to the original date and time. Subparagraph (e)(1)(B) requires the owner or operator to maintain an operating log containing the date, time, duration, and reason for each startup and shutdown. For startups, the reason provided in the operating log must specify if the startup was scheduled. Subparagraphs (e)(1)(C) requires NO_x emissions data collected pursuant to Rule 1135 for each startup and shutdown.

Paragraph (e)(2) requires an owner or operator of an electric generating unit with NO_x post-combustion control equipment to maintain documentation from the manufacturer of the minimum operating temperature of the NO_x post-combustion control equipment. Records are required to be on-site and made available to the South Coast AQMD upon request for compliance verification.

Exemptions (Subdivision (f))

Paragraph (g)(1) exempts Once-Through-Cooling Electric Generating Units from startup and shutdown duration limits, frequency of scheduled startups, and installation of a temperature measuring device for units that will retire the unit on or before the compliance date set forth in Table 1 of Section 2(B) of the State Water Resources Control Board's Statewide Water Quality Control Policy on the Use of Coastal Estuarine Waters for Power Plant Cooling (Once-Through-Cooling Policy) implementing Section 316(b) of the Clean Water Act. Those units are scheduled to retire in a few years; therefore it is not cost-effective to alter the equipment. Additionally, the older equipment may require additional scheduled startups to address maintenance issues. The exemption will sunset December 31, 2029 to prevent indefinite extensions of the retirement date.

CHAPTER 4: IMPACT ASSESSMENTS

INTRODUCTION

COSTS

EMISSION REDUCTIONS

COST-EFFECTIVENESS

INCREMENTAL COST-EFFECTIVENESS

SOCIOECONOMIC ASSESSMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

**DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE
SECTION 40727**

COMPARATIVE ANALYSIS

INTRODUCTION

Impact assessments were conducted during PAR 1135 and PR 429.2 rule developments to assess the environmental and socioeconomic implications of PAR 1135 and PR 429.2. California Health & Safety Code (H&SC) requirements for cost-effectiveness analysis, incremental cost-effectiveness analysis, and a socioeconomic assessment were evaluated during rule development of PAR 1135 and PR 429.2. Staff prepared draft findings pursuant to H&SC 40727 and an assessment of emission reductions. Staff will prepare a California Environmental Quality Act (CEQA) analysis and a comparative analysis pursuant to H&SC 40727.2 at least 30 days prior to the South Coast AQMD Governing Board Hearing on PAR 1135 and PR 429.2, which is anticipated to be heard on January 7, 2022.

COSTS

The provisions in PAR 1135 and PR 429.2 are not expected to impose any additional costs.

EMISSION REDUCTIONS

There will not be additional emission reductions from electric generating units subject to PAR 1135 and PR 429.2.

COST-EFFECTIVENESS

The H&SC Section 40920.6 requires a cost-effectiveness analysis when establishing BARCT requirements. The proposed rule does not include new BARCT requirements. Therefore, this provision does not apply to the proposed amended rule and proposed rule.

INCREMENTAL COST-EFFECTIVENESS

H&SC Section 40920.6 requires an incremental cost-effectiveness analysis for BARCT rules or emission reduction strategies when there is more than one control option which would achieve the emission reduction objective of the proposed amendments, relative to ozone, CO, SO_x, NO_x, and their precursors. The proposed rule does not include new BARCT requirements. Therefore, this provision does not apply to the proposed rule.

SOCIOECONOMIC ASSESSMENT

PAR 1135 and PR 429.2 do not impose any additional costs to the affected facilities and do not result in any adverse socioeconomic impacts.

CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

Pursuant to the California Environmental Quality Act (CEQA) and South Coast AQMD's certified regulatory program (Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(l) and South Coast AQMD Rule 110), the South Coast AQMD, as lead agency, is currently reviewing the proposed project (PAR 1135 and PR 429.2) to determine if it will result in any potential adverse environmental impacts. Appropriate CEQA documentation will be prepared based on the analysis.

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

H&SC 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report. The draft findings are as follows:

Necessity

PAR 1135 is needed to revise emission limits for diesel internal combustion engines, update provisions, and provide other clarifications. PR 429.2 is needed to establish limits on duration and frequency of startup and shutdown events for electric generating units at electricity generating facilities when units exceed the applicable emission limits in Rule 1135.

Authority

The South Coast AQMD obtains its authority to adopt, amend, or repeal rules and regulations pursuant to H&SC Sections 39002, 39616, 40000, 40001, 40440, 40702, 40725 through 40728, 40920.6, and 41508, as well as the federal Clean Air Act.

Clarity

PAR 1135 and PR 429.2 are written or displayed so that its meaning can be easily understood by the persons directly affected by them.

Consistency

PAR 1135 and PR 429.2 are in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication

PAR 1135 and PR 429.2 will not impose the same requirements as any existing state or federal regulations. The proposed rules are necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

Reference

In adopting these rules, the following statutes which the South Coast AQMD hereby implements, interprets or makes specific are referenced: H&SC Sections 39002, 40001, 40702, 40440(a), and 40725 through 40728.5, and the federal Clean Air Act.

COMPARATIVE ANALYSIS

Under H&SC Section 40727.2, the South Coast AQMD is required to perform a comparative written analysis when adopting, amending, or repealing a rule or regulation. The comparative analysis is relative to existing federal air pollution control requirements, existing or proposed South Coast AQMD rules and regulations, and all air pollution control requirements and guidelines which are applicable to the same equipment or source type. A comparative analysis will be

prepared and released at least 30 days prior to the South Coast AQMD Governing Board Hearing on PAR 1135 and PR 429.2, which is anticipated to be heard on January 7, 2022.