

**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION II – PERMITS AND FEES**

**RULE 270
PERFORMANCE TESTS**

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**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION II – PERMITS AND FEES**

**RULE 270:
PERFORMANCE TESTS**

SECTION 100 – GENERAL

- 101 PURPOSE:** To establish performance testing requirements for an owner or operator of a permitted source.
- 102 APPLICABILITY:** This rule applies to permitted sources required to conduct a performance test.
- 103 AUTHORITY TO REQUIRE TESTING:** Nothing in this rule shall be interpreted to limit the Control Officer's authority to require testing.
- 104 SUPPORTIVE DATA FOR GOOD MAINTENANCE AND OPERATING PRACTICES:** Nothing in this rule shall be interpreted to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

SECTION 200 – DEFINITIONS: For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of these rules. In the event of any inconsistency between any of the Maricopa County air pollution control rules, the definitions in this rule take precedence.

- 201 FORCE MAJEURE:** An event that will be or has been caused by circumstances beyond the control of the permitted source, its contractors, or any entity controlled by the permitted source that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified time frame despite the permitted source's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the permitted source.
- 202 PERFORMANCE TEST:** A stack test, also referred to in EPA regulations as a performance or source test, or relative accuracy test audit (RATA), that measures the amount of a specific regulated pollutant, pollutants, or surrogates being emitted; demonstrates the capture efficiency of a capture system; or determines the destruction or removal efficiency of a control device used to reduce emissions at facilities subject to the requirements of the Clean Air Act.
- 203 START-UP (WITH HYPHEN):** The moment a new piece of equipment has reached its capability to operate at its maximum production rate; or the moment an existing piece of

equipment is placed back into operation after missing its last scheduled performance test and has reached its capability to operate at its maximum production rate.

- 204 STARTUP (NO HYPHEN):** Relates to normal operation of equipment.
- 205 TEST PROTOCOL:** A site-specific test plan that includes information about the facility and process(es), a test program summary, the test schedule if available, data quality objectives, and both an internal and external quality assurance (QA) program.

SECTION 300 – STANDARDS

301 PERFORMANCE TEST REQUIREMENTS:

- 301.1** The applicable procedures and EPA methods contained in 40 CFR 51, Appendix M, 40 CFR 52, Appendices D and E, 40 CFR 60, Appendices A, B, and F, 40 CFR 61, Appendix B, 40 CFR 63, Appendix A, and 40 CFR 75, Appendices A and B shall be used to determine compliance with the requirements established in this rule or contained in permits issued pursuant to this rule. For a list of Promulgated EPA methods, Proposed EPA methods, Approved Alternative methods, Conditional EPA methods, and Other EPA methods, see the EPA’s Air Emission Measurement Center website.
- 301.2** The chain of custody procedures in ASTM D4840-99 “Standard Guide for Sample Chain-of-Custody Procedures” shall be followed for all performance testing unless alternative chain of custody procedures are approved by the Control Officer.
- 301.3** Except for ambient air monitoring and performance testing required under Rule 360 (New Source Performance Standards) and Rule 370 (Federal Hazardous Air Pollutant Program) of these rules, alternative and equivalent test methods in any test protocol submitted to the Control Officer may be approved by the Control Officer for the duration of that protocol provided that the following three criteria are met:
- a. The alternative or equivalent test method measures the same chemical and physical characteristics as the EPA method it is intended to replace, and
 - b. The alternative or equivalent test method has substantially the same or better reliability, accuracy, and precision as the EPA method it is intended to replace, and
 - c. Applicable quality assurance procedures are followed in accordance with this rule, the Code of Federal Regulations, or other methods approved by the Control Officer.
- 301.4 Testing Conditions:** Performance tests shall be conducted under such conditions as the Control Officer specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the equipment. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made. Upon request, the owner or operator shall make available to

the Control Officer such records as may be necessary to demonstrate the performance tests were conducted under representative operating conditions.

301.5 Testing Facilities Required: The owner or operator of a permitted source shall provide, or cause to be provided, performance testing locations as follows:

- a. Sampling ports per the applicable EPA methods which shall include:
 - (1) An air pollution control system constructed such that volumetric flows and pollutant emission rates can be accurately determined by applicable EPA methods and procedures; and
 - (2) A stack or duct that is free of cyclonic flow as demonstrated by applicable EPA methods and procedures.
- b. Safe sampling platform(s).
- c. Safe access to sampling platforms(s).
- d. Utilities for sampling and testing equipment.

301.6 Minimum Testing Requirements:

- a. Each performance test shall consist of three separate test runs, unless otherwise specified in the applicable standard or as approved by the Control Officer, using the applicable EPA method(s). Each test run shall be conducted for at least one hour in duration unless otherwise specified in the applicable standard or as approved by the Control Officer. Adjusting or tuning the process based on real time emissions data not normally available to the equipment operators shall not be cause for testing delays and is prohibited once the test has commenced.
- b. For the purpose of determining compliance with an applicable requirement, the arithmetic mean of results of the three test runs shall apply. The same EPA method(s) shall be used simultaneously for both the inlet and outlet measurements, if applicable; justification for any necessary exceptions shall be provided in the test protocol. Emission rates, concentrations, grain loadings, and/or efficiencies shall be determined as the arithmetic mean of the values determined for each individual test run. In the event that a sample is accidentally lost, or conditions occur in which one of the three test runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Control Officer's approval, be determined using the arithmetic mean of the results of the two other test runs.
- c. The owner or operator shall record all process and control equipment information that are necessary to document operating conditions during the test and explain why the conditions represent normal operation. Operational parameters shall be monitored and recorded at least once every 30 minutes during each of the required test runs and documented in the test report. The operational parameters monitored shall be capable of indicating that the equipment is operating within the permitted limits, both during and after the performance tests.

- d. If the Control Officer is present, tests may only be stopped with the Control Officer's approval. If the Control Officer is not present, tests may only be stopped for force majeure, which includes acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the permitted source. Termination of testing for reasons other than force majeure after the first test run has commenced may constitute a failure of the test.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

- 401 PERFORMANCE TEST TIME FRAMES:** A performance test shall be conducted per the requirements of this rule as required below. However, RATAs shall be conducted in accordance with the quality assurance procedures in the applicable federal regulations. The testing deadline may be extended by the Control Officer for good cause, but in no case shall the testing deadline, including report submittal, extend beyond 180 days.
- 401.1** Shall test equipment within 60 days of start-up; and
 - 401.2** Shall test equipment as specified in the permit.
- 402 TESTING CRITERIA:** Performance tests shall be conducted, and data reduced in accordance with the EPA methods and procedures contained in this rule unless the Control Officer:
- 402.1** Specifies or approves, in specific cases, the use of EPA method(s) with minor changes in methodology, such changes may be approved in conjunction with approval of the test protocol; or
 - 402.2** Approves alternative sampling times or sample volumes when necessitated by process variables or other factors; or
 - 402.3** Approves the use of an intermediate or major change to an EPA method or the use of an alternative to an EPA method the results of which the Control Officer has determined to be adequate for indicating whether the equipment is in compliance; or
 - 402.4** Waives the requirement for performance tests because the owner or operator has demonstrated by other means to the Control Officer's satisfaction that the equipment is in compliance with the relevant standard.
- 403 TESTING PROTOCOL:** The owner or operator of a permitted source must submit a test protocol for each piece of equipment to be tested, unless otherwise approved by the Control Officer, at least 30 calendar days prior to the desired test date to allow the Control Officer to review and approve the site-specific test plan (in accordance with the quality assurance program) and to have an observer present during the test. The results of the quality assurance program will be considered by the Control Officer when determining the validity of the performance test.
- 403.1** All proposed changes and/or alternatives to any EPA Method must be included in the test protocol in order to be considered for approval by the Control Officer.
 - 403.2** If the owner or operator intends to demonstrate compliance by using an alternative to any EPA method specified in this rule, the owner or operator is authorized to conduct the performance test using an alternative test method only after the Control

Officer approves the use of the alternative method when the Control Officer approves the test protocol.

403.3 Until authorized to use a change or alternative to an EPA method, the owner or operator of a permitted source remains subject to the requirements of this rule.

404 **NOTIFICATION:** The owner or operator of a permitted source required to conduct a performance test shall provide notification (as required) for the following:

404.1 Notice of Start-up: The owner or operator shall notify the Maricopa County Air Quality Department (MCAQD) in writing within 14 calendar days after the applicable equipment has achieved the capability to operate at its maximum capacity.

404.2 Notice of Testing: The owner or operator shall notify MCAQD in writing at least two weeks prior to the actual date and time of each performance test unless otherwise specified in the applicable standard or permit so MCAQD may have an observer attend. A separate notice of testing is not required if the actual date and time is submitted with the test protocol.

a. In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in this rule due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Control Officer as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled.

b. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this rule or with any other applicable Federal, State, or local requirement, nor will it prevent the Control Officer from implementing or enforcing this part or taking any other action.

405 **TEST REPORT SUBMISSION:** The owner or operator shall complete and submit test reports for performance tests as follows, unless otherwise approved by the Control Officer or as specified in the permit.

405.1 Test reports shall be submitted to MCAQD within 45 days after:

a. The last day of testing of a single piece of equipment; or

b. The conclusion of testing multiple pieces of equipment with no more than 14 calendar days between tests.

405.2 Submit a separate test report for each piece of equipment tested.

405.3 All test reports shall be submitted in electronic format and shall provide all required information (in accordance with the test protocol review) to determine whether or not the equipment has successfully demonstrated compliance.

SECTION 500 – MONITORING AND RECORDS:

501 **RECORDKEEPING AND REPORTING:** Any owner or operator subject to this rule shall comply with the requirements set forth in this section. Any records and data required by this section shall be kept on site at all times in a consistent and complete manner and be made available without delay to the Control Officer or his designee upon request.

502 RECORDS RETENTION: Copies of reports, logs, and supporting documentation required by the Control Officer shall be retained for at least five years. Records and information required by this rule shall also be retained for at least five years.