

**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS**

**RULE 319
GINNING OPERATIONS**

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RULE 319
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SECTION 100 – GENERAL

- 101 **PURPOSE:** To limit the discharge of particulate matter from ginning operations by establishing emission and control standards.
- 102 **APPLICABILITY:** This rule applies to all new, existing and modified ginning operations.

SECTION 200 – DEFINITIONS: See Rule 100 (General Provisions and Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule. For the purposes of this rule the following definitions shall apply:

- 201 **EMISSION CONTROL SYSTEM (ECS):** A system for reducing emissions of particulates, consisting of both collection and control devices which are approved in writing by the Control Officer and are designed and operated in accordance with good engineering practices.
- 202 **EMISSIONS UNIT:** Any part of a stationary source which emits or would have the potential to emit any regulated air pollutant. Each piece of equipment shall be considered a single emissions unit for the purpose of this rule.
- 203 **GINNING OPERATION:** Any facility or plant that processes raw harvested seed cotton by separating fiber from the seed, removes trash from both seed cotton and ginned fiber, and packages the cotton fiber into bales.
- 204 **HIGH EFFICIENCY CYCLONE:** Any cyclone type collector of the 2D-2D or 1D-3D configuration, designations referring to the ratio of cylinder length to cone length, where D is the diameter of the cylinder portion. A 2D-2D cyclone has a body and cone length that are twice as long as the cyclone diameter. A 1D-3D cyclone has a body that is the same length as the diameter but the cone length is three times the diameter.
- 205 **LINT HANDLING SYSTEMS EXHAUST:** The exhaust air systems at a cotton gin that handle air from the cotton lint handling system, battery condenser and mote handling systems.
- 205 **SEED COTTON HANDLING AND TRASH SYSTEM EXHAUST:** The exhaust cotton handling air systems located at a cotton gin that are not defined as “lint handling systems exhaust

SECTION 300 – STANDARDS

301 LIMITATIONS - OPACITY/GENERAL: No person shall discharge into the ambient air from any ginning operation any air contaminant, other than uncombined water, in excess of 20 percent opacity.

302 CONTROLS REQUIRED: An owner or operator shall perform the following:

302.1 Control each unit that is fed by seed-cotton unloading, first seed-cotton cleaning and master trash systems with an ECS that includes a 1D-3D cyclone or equivalent device with at least a 95% efficiency.

302.2 Effective April 7, 2004, control the remaining seed cotton handling and trash exhaust emission units with an ECS that includes a 1D-3D cyclone or equivalent device with at least a 95% efficiency.

302.3 Effective April 7, 2004, control all lint handling exhaust emissions units with an ECS that includes at least a 2D-2D cyclone or equivalent device with at least a 90% efficiency.

303 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT

303.1 Operation and Maintenance (O&M) Plan Requirements for ECS:

- a. An owner or operator shall provide and maintain (an) O&M Plan (s) for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to this rule or to an air pollution control permit.
- b. The owner or operator shall submit to the Control Officer for approval the O&M Plans of each ECS and each ECS monitoring device that is used pursuant to this rule.

303.2 Providing and Maintaining ECS Monitoring Devices: An owner or operator operating an ECS pursuant to this rule shall install, maintain and calibrate monitoring devices described in the O&M Plan. The monitoring devices shall measure pressures, rates of flow and/or other operating conditions necessary to determine if the control devices are functioning properly.

303.3 O&M Plan Responsibility: An owner or operator of a facility that is required to have an O&M Plan pursuant to subsection 303.1 must fully comply with all O&M Plans that the owner or operator has submitted for approval, but which have not yet been approved, unless notified otherwise by the Control Officer in writing.

304 TRASH HOPPER DUMPING: Any owner or operator shall dump trash into a hopper that must utilize an enclosure with a minimum of two sides in order to minimize fugitive emissions. The sides of the enclosure shall prevent wind dispersion by ensuring that the height of the enclosure extends above the opening of the dumping device. If an auger is used to transport the trash into a hopper, the open end of the auger or auger sleeve shall be below the top of the enclosure.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

401 CONTROL EQUIPMENT COMPLIANCE PLAN SCHEDULE: Any owner or operator who has not complied with Section 300 of this rule by April 7, 1999 shall submit to the Control Officer:

- a. A notice of intent to achieve compliance with this rule no later than October 4, 1999.
- b. A compliance plan, following the intent of notice, that specifies anticipated dates for completing increments of progress in the plan. At a minimum this plan shall include a design scheme, actual date that the equipment was ordered or purchased, anticipated delivery date, installation schedule and anticipated start-up dates and starting dates. The Control Officer may require a person submitting a compliance plan to submit subsequent reports on progress in achieving compliance.
- c. No later than 180 days after the control equipment is considered to be in compliance with this rule, the owner or operator shall file the O&M Plan, as stated in Section 303 of this rule, with the Control Officer.

SECTION 500 – MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: The owner or operator subject to this rule shall comply with the following record requirements. These records shall be kept for a period of five (5) years.

501.1 Process Records: For each day of operation, the owner or operator shall record the total hours during which a ginning operation was conducted, the number of bales of cotton produced and the total weight of all bales produced.

501.2 ECS O & M Plan Records: An owner or operator shall maintain a record of the periods of time that an approved ECS is used to comply with this rule. Key system parameters such as fan static pressures, visible emission checks and other variable parameters necessary to determine if the control equipment is functioning properly shall be recorded in accordance with the approved O&M Plan. The records shall account for any periods when the control system was not operating. The owner or operator shall also maintain records of all maintenance performed according to the O&M Plan. The results of the visual inspection, and any corrective action taken if necessary, shall also be recorded.

502 COMPLIANCE DETERMINATIONS: The owner or operator shall conduct maintenance evaluations of the control device to ensure continuing proper flow through the collection system. This evaluation shall consist of all of the following:

502.1 An initial baseline study of the entire dust collection system to determine if the system is properly balanced to ensure maximum particulate matter collection efficiency. This evaluation shall be made prior to October 1999 following the adoption of the rule. If this initial baseline study shows that any of the systems are not properly balanced then a subsequent baseline study shall be made of the system or systems after the system or systems have been modified. The baseline study shall be conducted using EPA Method 2, as incorporated by reference in section 503.1(b). During the baseline study, the inlet velocity, fan static pressure downstream of each

fan, and the cyclone pressure drop at local conditions shall also be determined and recorded for reference. The baseline study shall be performed under unloaded conditions. The cyclones shall be operated at +/- 20% of the design gas velocity at local conditions. The design velocity is 2,700 to 3,600 ft./min. for 2D-2D cyclones and 2,800 to 3,600 ft./min. for 1D-3D cyclones. Equivalent systems shall establish alternate baseline parameters through performance testing that are approved by the Control Officer in writing.

502.2 Weekly checks referenced to the established baseline parameters shall be made to ensure that the control system is operating within +/- 20% of the designed inlet velocity range at local conditions. These checks shall be made by direct static pressure measurements at each fan using a manometer, velometer or other equivalent measuring device approved by the Control Officer at the same sample ports that were used in the baseline study.

502.3 Visual checks of the ECS for leaks, holes and excessive visible emissions shall be conducted and recorded during each day of operation.

503 TEST METHODS ADOPTED BY REFERENCE: The Environmental Protection Agency (EPA) test methods, as they exist in the Code of Federal Regulations, adopted as of July 1, 2002, as listed below, are adopted by reference. These adoptions by reference include no future editions or amendments. Copies of test methods referenced in section 503.1 are available at the Maricopa County Air Quality Department.

503.1 Test Methods:

- a. Opacity Determination:** The opacity determinations shall be conducted in accordance with the techniques specified in EPA Reference Method 9, 40 CFR Part 60, Appendix A.
- b. Velocity and Volumetric Flow Rate:** The velocity and volumetric flow rate shall be determined according to EPA Reference Method 2, 40 CFR Part 60, Appendix A.
- c. Particulate Emissions:** The amount of particulate matter shall be determined according to EPA Reference Method 5, 40 CFR Part 60, Appendix A.
- d. Sample and Velocity Traverses for Stationary Sources:** The sample and velocity traverses shall be determined according to EPA Reference Method (s)1 40 CFR Part 60, Appendix A.