

COUNTY NOTICES PURSUANT TO A.R.S. § 49-112

NOTICE OF PROPOSED RULEMAKING

MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS

RULE 312 – ABRASIVE BLASTING

PREAMBLE

- 1. Rules Affected** **Rulemaking Action**
Rule 312 Amend

- 2. The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):**
Authorizing statutes: Arizona Revised Statutes (A.R.S.) §§ 49-112(A) and 49-479
Implementing statute: Arizona Revised Statutes (A.R.S.) § 49-479

- 3. A list of all previous notices appearing in the Register addressing the proposed rule:**
Notice of Rulemaking Docket Opening: 8 A.A.R. 5178, December 20, 2002

- 4. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:**
Name: Renee Kongshaug or Jo Crumbaker, Air Quality Division
Address: 1001 N. Central Avenue, Suite #695
Phoenix, AZ 85004
Telephone: (602) 506-4057 or (602) 506-6705
Fax: (602) 506-6179
E-mail: rkongshaug@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

- 5. An explanation of the rules, including the agency's reasons for initiating the rules:**
Upon review, EPA promulgated limited approval of Rule 312, Abrasive Blasting as published in the Federal Register Vol. 65, No. 133 on July 11, 2000. The deficient provision in subsection 302.4 allowed control officer discretion. Subsection 302.4 states, "A control measure that is determined by the Control Officer to be equally effective to control particulate emissions." Maricopa County is now proposing to correct the above deficiency, address the lack of recordkeeping and monitoring requirements and clarify and update text by revising Rule 312.

The stakeholder process for revising Rule 312 involved the issuance of six draft revisions and workshops to resolve issues with those facilities containing abrasive blasting sources. Recommendations from stakeholders were included in the rule after each workshop was conducted. Stakeholders raised issues regarding the size of the source and whether or not they should be subject to various parts of the rule. Other concerns included the quantity and frequency of recordkeeping, frequency of monitoring, the requirement of an O&M plan and the tight opacity limitations. As a response to these comments, exemptions were added, recordkeeping requirements modified to be based on frequency of blasting, and the O&M requirements specifically limited to certain operations.

Section-by-Section Explanation for the Amended Rule

Rule 312

Subsection 101 – This proposed change clarifies what is being limited.

Subsection 102 – This proposed change adds an applicability clause.

Subsection 103 – This proposed change adds an exemption clause.

Section 200 – This proposed change allows for use of definitions from Rule 100 to apply to this rule.

Subsection 201 – This proposed change repeals the definition of abrasive blasting and replaces it with the definition of abrasive.

Subsection 202 – This proposed change repeals the definition of abrasive blasting equipment and replaces it with the definition of abrasive blasting operation.

Subsection 203 – This proposed change repeals the definition of confined blasting and replaces it with confined enclosure in subsection 204. The definition of certified abrasives is added.

Subsection 204 – This proposed change adds the definition of confined enclosure.

Subsection 205 – This proposed change adds the definition of emission control system.

Subsection 206 – This proposed change renumbers and amends the definition of hydroblasting.

Subsection 207 – This proposed change renumbers the definition of multiple nozzles.

Subsection 208 – This proposed change adds the definition of opacity.

Subsection 209 – This proposed change adds the definition of unconfined blasting.

Subsection 210 – This proposed change adds the definition of vacuum blasting.

Subsection 211 – This proposed change renumbers and amends the definition of wet abrasive blasting.

Subsection 212 – This proposed change adds the definition of wind event.

Subsection 301 – This proposed change amends the controls required (previously subsection 302) of any abrasive blasting operation by limiting blasting to a confined enclosure and providing conditions when unconfined blasting can occur.

Subsection 302 – This proposed change outlines the requirements if unconfined blasting is to occur.

Subsection 303 – This proposed change requires confined blasting with a forced air exhaust to use CARB-certified media unless emissions are vented through an ECS.

Subsection 304 – This proposed change requires an Operation and Maintenance Plan for those applicable blasting operations with an ECS.

Subsection 305 – This proposed change renumbers and amends the opacity limitation for abrasive operations.

Subsection 306 – This proposed change limits blasting from occurring during wind events.

Subsection 307 – This proposed change outlines limitations to blasting traffic markers.

Subsection 308 – This proposed change adds housekeeping practices for blasting.

Section 400 – This proposed change adds an administrative requirement clause.

Subsection 401 – This proposed change adds a compliance schedule for operations subject to this rule.

Subsection 501 – This proposed change requires records to be kept onsite summarizing blasting operations. Different recordkeeping is required according to whether the blasting is periodic or a daily activity.

Subsection 502 – This proposed change requires retention of records in a time-frame according to whether it's a Title V or Non-Title V source.

Subsection 503 – This proposed change adds compliance determinations for control device efficiency and testing requirements for lead in paint.

Subsection 504 – This proposed change adds a list of certified abrasives adopted by reference that are required to be used during unconfined dry abrasive blasting.

Subsection 505 – This proposed change renumbers and amends visible emission evaluation techniques.

Subsection 506 – This proposed change reflects the current language that Maricopa County now uses in its rules to adopt test methods adopted by reference.

Demonstration of compliance with A.R.S. § 49-112:

Under A.R.S. § 49-112(A), Maricopa County may adopt rules that are more stringent than or in addition to a provision of the state, provided that the rule is necessary to address a peculiar local condition; and if it is either necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible; or if it is required under a federal statute or regulation, or authorized pursuant

to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule is equivalent to federal statutes or regulations; and if any fee adopted under the rule will not exceed the reasonable costs of the county to issue and administer that permit program. Maricopa County is in compliance with A.R.S. § 49-112(A) in that Maricopa County proposes to adopt revisions to Rules 312 that are more stringent than a provision of the state in order to address a peculiar local condition, the designation of Maricopa County as a serious non-attainment area for particulate matter less than or equal to 10 microns.

6. A reference to any study relevant to the rule that the agency reviewed and either proposes to rely on in its evaluation of or justification for the rule or proposes not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

Not applicable

7. A showing of good cause why the rules are necessary to promote a statewide interest if the rules will diminish a previous grant of authority of a political subdivision of this state:

Not applicable

8. The preliminary summary of the economic, small business and consumer impact:

There will be small incremental costs to the sources affected by Rule 312 by the proposed revisions to the rule. Permitted facilities are currently using CARB-certified media as a condition of their permits. The requirement of using CARB-certified abrasive blasting media when performing uncontrolled confined and unconfined blasting codifies provisions that have been included in permit conditions, therefore the requirement is not an additional cost. Also, most media sold now is CARB-certified and is comparable in cost to uncertified media. An Operation and Maintenance Plan is a new requirement if the source has an ECS on the abrasive blasting equipment. This requirement has also been included in the majority of permits. For those smaller sources that haven't submitted an O&M plan, the sole cost to the source would be taking the time to write the plan and implement it.

There will be a small increase in costs associated with keeping the appropriate records that are required under this rule. The lack of recordkeeping was a structural oversight when the county rules were recodified and reformatted in 1988. The generic recordkeeping provision for all sources was eliminated at the time and the county failed to include the proper recordkeeping in all the county rules, including Rule 312. Adding recordkeeping now will rectify this oversight. The amount of time required to determine the compliance status of the blasting equipment by recording proper information will be a cost, but there will be no monetary costs for administration.

Maricopa County

Projected costs to Maricopa County Environmental Services Division are those that accrue for implementation and enforcement of the new standards. Although there are some small incremental costs due to this rulemaking, Maricopa County does not intend to hire any additional employees to implement or enforce these rules. The final economic impact statement for this rule must contain a statement of probable impact of the rule on small businesses. This preliminary economic impact statement (EIS) was developed to estimate the impact of this rule. This impact statement, comprised of potential costs and benefits, represents an estimate. Maricopa County solicits input from sources that could be small businesses and organizations under this definition on the administrative and other costs required for compliance with the proposed rulemaking, and any other information relevant to the economic, small business and consumer impact statement.

9. The name and address of agency personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact statement:

Name: Renee Kongshaug or Jo Crumbaker, Air Quality Division
Address: 1001 N. Central Avenue, Suite #695
Phoenix, AZ 85004
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10. The time, place, and nature of the proceedings for the making, amendment, or repeal of the rule, or if no proceeding is scheduled, where, when, and how persons may request an oral proceeding on the proposed rule:

Oral Proceeding Date: February 6, 2003, 9:00 a.m.

Location: Maricopa County Environmental Services Department
5th Floor Conference Room #560
1001 N. Central Avenue
Phoenix, AZ 85004

Nature: Public hearing with the opportunity for formal comments on the record regarding the proposed rules and submittal of the rules to EPA as a revision to the State Implementation Plan (SIP).

Call (602) 506-0169 for current information. Please call (602) 506-6443 for special accommodations under the Americans with Disabilities Act.

11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rules or class of rules:

Not applicable

12. Incorporations by reference and their location in the rules:

<u>New incorporations by reference</u>	<u>Location</u>
40 CFR Part 60 Appendix A	Rule 312, Section 506
SW-846 Method 6010B	Rule 312, Section 506
Method 0239.2	Rule 312, Section 506

13. The full text of the rules follows:

REGULATION III- CONTROL OF AIR CONTAMINANTS

RULE 312 ABRASIVE BLASTING

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- 100 No change
- 101 **PURPOSE:** To limit particulate matter emissions from abrasive blasting operations.
- 102 **APPLICABILITY:** This rule applies to abrasive blasting operations.
- 103 **EXEMPTIONS:** This rule shall not apply to the following:
- 103.1 Self-contained, enclosed abrasive blasting equipment that is not vented to the atmosphere or is vented inside a building with the exhaust directed away from any opening, or
- 103.2 Hydroblasting

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

- ~~201~~ **ABRASIVE BLASTING** – The operation of cleaning or preparing a surface by forcibly propelling a stream of abrasive material against the surface.
- 201 **ABRASIVE** – A solid substance used in a blasting operation. This includes but is not limited to sand, slag, steel, shot, garnet, walnut shells, or carbon dioxide pellets.
- ~~202~~ **ABRASIVE BLASTING EQUIPMENT** – Any equipment utilized in abrasive blasting operations.
- 202 **ABRASIVE BLASTING OPERATION** – Cleaning, polishing, conditioning, removing or preparing a surface by forcibly propelling a stream of abrasive with either high pressure liquid or compressed air against the surface.
- ~~203~~ **CONFINED BLASTING** – Any abrasive blasting conducted in an enclosure which significantly reduces air contaminants from being emitted to the ambient atmosphere, including but not limited to shrouds, tanks, buildings and structures.
- 203 **CERTIFIED ABRASIVES** – An abrasive, that has been certified by the California Air Resources Board (CARB) in accordance with Section 92530 of Title 17, Division 3, Chapter 1, Subchapter 6, Article 4 of the California Code and Regulations effective as of December 26, 2000. An abrasive purchased by an operator during the certified period is certified for use until it is gone and is not required to be used only during its certified period.
- ~~204~~ **HYDROBLASTING** – Any abrasive blasting using high pressure liquid as the propelling force.
- 204 **CONFINED ENCLOSURE** – A fixed structure that is used, in whole or in part, for abrasive blasting operations. The structure consists of either three OR four fixed sides, a roof or cover, with or without an exhaust to the atmosphere. A temporary structure may be erected for abrasive blasting purposes provided it has three sides, a roof or cover, with or without an exhaust to the atmosphere. The blasting must be directed away from the open side of the building for both types of structures.
- 205 **EMISSION CONTROL SYSTEM** – A system for reducing particulate matter emissions, consisting of both collection and control devices, that is designed and operated in accordance with good engineering practice, and, if permitted, is approved in writing by the Control Officer.
- 206 **HYDROBLASTING** – Any abrasive blasting ~~using~~ operation that uses a high-pressure liquid as the propelling force.
- ~~205~~207 **MULTIPLE NOZZLES** – A group of two or more nozzles being used for abrasive cleaning of the same surface in such close proximity that their separate plumes are indistinguishable.
- 208 **OPACITY** – A condition of the ambient air, or any part thereof, in which an air contaminant partially or wholly obscures the view of an observer.
- 209 **UNCONFINED BLASTING** – Any abrasive blasting operation that is not performed in a confined enclosure.
- 210 **VACUUM BLASTING** – Any abrasive blasting operation in which the spent abrasive, surface material, and dust are immediately collected by a vacuum device.
- ~~206~~211 **WET ABRASIVE BLASTING** – Any abrasive blasting operation ~~using~~ that uses compressed air as the propelling force and sufficient water, abrasive, and liquid to minimize the plume.
- 212 **WIND EVENT** – When the 60-minute average wind speed is greater than 25 miles per hour.
- 300 No change
- ~~301~~ **LIMITATIONS — 20 PERCENT OPACITY:** No person shall discharge into the atmosphere from any abrasive blasting any air contaminant for a period or periods aggregating more than three minutes in any one hour period which is a shade or density darker than 20 percent opacity.

- 301** **LIMITATIONS FOR BLASTING:** All abrasive blasting operations shall be performed in a confined enclosure, unless one of the following conditions are met, in which case unconfined blasting according to Section 302 may be performed:
- 301.1** The item to be blasted exceeds 8 ft. in any one dimension, or
- 301.2** The surface being blasted is fixed in a permanent location cannot easily be moved into a confined enclosure, and that is not normally dismantled or moved prior to abrasive blasting.
- 302** ~~**CONTROLS REQUIRED:** Any abrasive blasting operation shall use at least one of the following control measures:-~~
- 302.1** ~~Confined blasting.~~
- 302.2** ~~Wet abrasive blasting.~~
- 302.3** ~~Hydroblasting.~~
- 302.4** ~~A control measure that is determined by the Control Officer to be equally effective to control particulate emissions.~~
- 302** **REQUIREMENTS FOR UNCONFINED BLASTING:** At least one of the following control measures shall be used:
- 302.1** Wet abrasive blasting.
- 302.2** Vacuum blasting, or
- 302.3** Dry abrasive blasting, provided that all of the following conditions are met:
- a.** Perform only on a metal substrate.
- b.** Use only an abrasive that is certified by CARB for dry unconfined blasting.
- c.** If blasting paint, use the CARB blasting media on paint that is lead free (i.e. the lead content is less than 0.1%) if blasting paint.
- d.** Perform the abrasive blasting operation directed away from unpaved surfaces.
- e.** Use the CARB abrasive blasting media only once unless residual coatings and other contaminants from blast media are separated from the media through filtration and the abrasive is limited to its original size.
- 303** **REQUIREMENTS FOR CONFINED BLASTING:** Dry abrasive blasting in a confined enclosure with a forced air exhaust shall only be conducted using an abrasive that is certified by CARB, or shall vent to an ECS that controls pollutants to the extent that opacity does not exceed 20 percent.
- 304** **REQUIREMENTS FOR ECS AND MONITORING DEVICES:** The following requirements apply to blasting equipment that vents through an ECS to the atmosphere. Buildings and/or enclosures are not considered control equipment. Self-contained, enclosed abrasive blasting equipment with an ECS, where the total internal volume of the blast section is 50 cubic feet or less, are to operate and perform maintenance in accordance with manufacturer's specifications.
- 304.1** **Operation and Maintenance (O&M) Plan Required for Emission Control System (ECS)-**
- a.** An owner or operator shall provide and maintain, readily available at all times, (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. If the O&M plan has not been filed, any owner or operator employing an approved existing ECS on the effective date of this rule shall by (insert 6 mos. after rule is adopted) have an O&M plan filed with the Control Officer.
- c.** The owner or operator shall comply with all the identified actions and schedules provided in each O&M Plan.
- 304.2** **Installing And Maintaining ECS Monitoring Devices –** An owner or operator operating an ECS pursuant to this rule shall properly install and maintain in calibration, in good working order and in operation, devices described in the facility's O&M Plan that indicate temperatures, pressures, rates of flow, or other operating conditions necessary to determine if air pollution control equipment is functioning properly.
- 304.305** **OPACITY LIMITATIONS:** No owner or operator shall discharge into the atmosphere from any abrasive blasting operation any air contaminant for an observation period or periods aggregating more than three minutes in any one-hour period an opacity equal to or greater than 20 percent. An indicated excess will be considered to have occurred if any cumulative period of 15-second increments totaling more than three minutes within any clock hour was in excess of the opacity standard.
- 306** **WIND EVENT –** No dry unconfined abrasive blasting operation shall be conducted during a wind event.
- 307** **TRAFFIC MARKERS –** Surface preparation for raised traffic delineating markers and pavement marking removal using abrasive blasting operations shall be performed by wet blasting, hydroblasting or vacuum blasting. Dry blasting may be performed using only certified abrasives when:
- 307.1** Removing pavement markings of less than 1,000 square feet.
- 307.2** Performing surface preparation for raised traffic delineating markers of less than 1,000 square feet.
- 308** **GOOD HOUSEKEEPING PRACTICES:**
- 308.1** **For Unconfined Blasting:** The owner or operator of a source shall clean up spent abrasive material likely to be transported during a wind event and, until removal occurs, shall, at a minimum, meet the provisions of Rule 310 of these rules regarding work practices.

308.2 **For Confined Blasting:** At the end of the work shift the owner or operator shall clean up spillage, carry-out, and/or trackout of any spent abrasive material likely to be transported during a wind event in order to prevent air contaminants from being emitted into the atmosphere.

400 – ADMINISTRATIVE REQUIREMENTS

401 **COMPLIANCE SCHEDULE:** An owner or operator of an abrasive blasting operation subject to this rule shall be in compliance on the date of adoption of this rule.

500 No change

501 **RECORDKEEPING AND REPORTING:** At a minimum, an owner or operator subject to this rule shall keep the following records onsite, that are applicable to all abrasive blasting operations. Additional reporting may be required by an air quality permit:

501.1 If blasting operations occur daily or are part of a facility's primary work activity, then the following shall be kept as a record:

- a.** A list of the blasting operations.
- b.** The description of the type of blasting (for example, confined, unconfined, sand, wet, etc.).
- c.** The locations of the blasting operations (or if they are portable).
- d.** The ECS associated with the operations, if applicable.
- e.** The days of the week blasting occurs, and
- f.** The typical hours of operation (for example, 8 a.m. – 5 p.m.).

501.2 If blasting operations occur periodically, then the following shall be kept as a record:

- a.** The date the blasting occurs.
- b.** The blasting source that is operating.
- c.** A description of the type of blasting, and
- d.** The ECS associated with that source, if applicable.

501.3 Type and amount of solid abrasive material consumed on a monthly basis. Include name of CARB material used, as applicable.

501.4 Material Safety Data Sheets (MSDS) or results of any lead testing that was performed on paint that is to be removed via unconfined blasting, as applicable.

502 **RECORDS RETENTION:** Copies of reports, logs, and supporting documentation required by the Control Officer shall be retained for at least 5 years at permitted Title V sources and for at least 2 years at Non-Title V sources.

503 **COMPLIANCE DETERMINATION:**

503.1 **Control Device Efficiency** – Manufacturer's specifications, testing, or engineering data that demonstrate control efficiency shall be submitted to the Control Officer if proof of particulate matter control is requested by the Control Officer.

503.2 **Lead in Paint Testing** – If unconfined blasting of paint is to occur, the operator must either be the generator with firsthand knowledge of lead content in the paint, or have evidence either by the MSDS or lead testing according to Section 506. If the lead content is >0.1%, unconfined blasting is prohibited.

504 **CERTIFIED ABRASIVES LIST ADOPTED BY REFERENCE:** The list of abrasives certified for permissible dry unconfined blasting is found in Executive Order G-00-066 in accordance with the California Code of Regulations, Subchapter 6, Title 17, Section 92530, Exhibit A effective as of December 26, 2000 and is adopted by reference. A copy of the list of currently certified abrasives can also be obtained at Maricopa County Environmental Services, 1001 North Central Avenue, Phoenix, AZ 85004-1942.

504-505 **VISIBLE EMISSION EVALUATION TECHNIQUES:** Visible emission observations of abrasive blasting operations shall be ~~conducted~~ determined when blasting is occurring in accordance with the following provisions:

505.1 Emissions from unconfined blasting shall be ~~read~~ observed at the densest point of the emission from the closest point of discharge, after a major portion of the spent abrasives has fallen out at a point not less than five feet nor more than 25 feet from the impact surface from any single abrasive blasting nozzle.

505.2 Emissions from unconfined blasting employing multiple nozzles shall be ~~judged as considered~~ a single source unless it can be demonstrated by the owner or operator that each nozzle, evaluated separately, meets the emission standards of this rule.

505.3 Emissions from confined blasting shall be ~~read~~ observed at the densest point after the air contaminant leaves the enclosure or associated ECS.

506 **TEST METHODS ADOPTED BY REFERENCE:** The EPA test methods as they exist in the Code of Federal Regulations (CFR), July 1, 2001, as listed below, are adopted by reference. This adoption by reference includes no future editions or amendments. Copies of these test methods may be obtained at the Maricopa County Environmental Services Department – Air Quality Division, 1001 North Central Avenue, Suite 200, Phoenix, AZ 85004-1942. When more than one test method as listed in subsection 506.2 and 506.3 is permitted for the same determination, an exceedance of the limits established in this rule determined by any of the applicable test methods constitutes a violation.

- 506.1** EPA Test Method 9 (“Visual Determination of the Opacity of Emissions from Stationary Sources”) (40 CFR 60, Appendix A).
- 506.2** EPA Test Method for Evaluating Solid Wastes (Lead), SW-846 Method 6010B (Inductively Coupled Plasma-Atomic Emission Spectrometry).
- 506.3** EPA Test Method for Testing Lead by Atomic Absorption, Direct Aspiration, Method 0239.2 (EPA Report 600/4-79-020).