

COUNTY NOTICES OF PROPOSED RULEMAKING
Pursuant to A.R.S. §§ 49-112(A) or 49-112(B)

MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT
AIR QUALITY DIVISION

1. **Heading and number of the proposed rule, ordinance, or other regulations**

Rule 341 (Metal Casting)

New Rule 349 (Pharmaceutical, Cosmetic and Vitamin Manufacturing Operations)

2. **Summary of the proposed rules, ordinance, or other regulations**

Maricopa County is proposing to revise Rule 341 (Metal Casting) and add New Rule 349 (Pharmaceutical, Cosmetic and Vitamin Manufacturing Operations) and to submit such rules as a revision to the (Arizona) State Implementation Plan (SIP).

Proposed Revisions to Rule 341 (Metal Casting)

The Clean Air Act (CAA) requires Maricopa County to implement Reasonably Available Control Technology (RACT) for any industrial facility in Maricopa County that yearly emits, or has the potential to emit, volatile organic compounds (VOC) in excess of the major source threshold. Maricopa County had a major-source investment casting facility. Since 1993, when the rule was adopted, several important changes have occurred that necessitate revision.

The existing Rule 341 and a pollution prevention program at that facility have resulted in a decrease from 100 tons of binder solvent annually to less than 2 tons. The facility discontinued using an ethanol-based binder system and replaced it with a latex/waterborne binder system. Hundreds of aerospace casting-forms were requalified to meet military specifications.

During the period when the facility gradually increased the percentage of molds that were made with low-VOC binder, the rule's averaging option was used, which requires daily recordkeeping. When use of high-VOC binder was eliminated, several rule provisions became irrelevant. Another change occurred in 1996, when the general VOC rule, Rule 330, was revised to exempt all casting processes. This exemption was adopted in response to a petition filed pursuant to A.R.S. §49-112. As a consequence, a new rule (Rule 347) was adopted for ferrous sand casting, and provisions specific to investment casting are included in this proposed revision to Rule 341. Furthermore, the Maricopa County ozone non-attainment area was reclassified to "serious". This "serious" status lowered the major source threshold, which in turn affects the RACT applicability threshold of this rule. As a result, Maricopa County is proposing to update and revise Rule 341 to be a more effective and comprehensive regulation.

The following changes are proposed for Rule 341:

- **Title:** The title of Rule 341 has been changed to reflect more clearly that the rule applies only to investment (lost wax) casting. (Ferrous sand casting is addressed by Rule 347.)
- **Applicability:** The revision consolidates all VOC-control provisions for investment casting into this one rule. All smaller investment casting facilities (less than 25 TPY) and the VOC emissions from mold "burnout" kilns at this facility, formerly regulated by Rule 330, are now regulated by this rule.
- **Stricter Threshold:** The applicability threshold for using RACT is lowered from 100 tons of VOC emission annually and 600 lbs. per day to 25 tons annually and 150 lbs. per day. The control efficiency required of any Emission Control System (ECS) used to meet the rule's binder VOC limits has been increased from 81 to 85% overall control of VOC emissions.
- **Flexibility:** In addition to the control efficiency standard, this revision offers an additional, alternate criterion for meeting both the ECS standard and the kiln VOC control-device standard. This criterion is designed to be a mass loading standard, e.g., 20 milligrams VOC per standard cubic meter of exhaust. Also, a Certified Data Sheet will now suffice for routine compliance verification of binder VOC-content, daily recordkeeping has been eliminated as long as the facility continues its current regime that allows use of only those binders that are low in VOC, and as an alternative to the new RACT threshold of 150 pounds of VOC per day, a threshold of 160 lbs. VOC/day is available to a facility that always limits molding activities to no more than 6 days per week and to a facility that always limits molding activities to no more than 313 days per year, if the 160 lb/day threshold is made a part of the facility's Air Pollution Permit.
- **Testing:** The requirement that the facility perform annual laboratory-type testing of each binder-type for VOC content has been changed to apply only if an averaging regime is used during that year and only to the binders used during that regime. For the routine determination of VOC content, Certified Data Sheets may be used as an alternative to laboratory methods. Alternative test methods for VOC content, developed by California's South Coast and Bay Area Air Quality Management Districts, have also been added.
- **Kilns:** Control of burnout kiln VOC emissions is now regulated solely by this rule. Burnout kilns used in ozone nonattainment areas come equipped with afterburners to reduce VOC and smoke emissions from the incomplete combustion of binder and wax residue within mold firing chambers. Older model kilns still in use pass both VOC and opacity tests, but create some smoke. In addition, the door of each of these has to be manually attended to during part of each burnout cycle. Kilns installed after the date of adoption of these revisions must operate without the kiln door open during firing, codifying the facility's current practice of replacing existing equipment with kilns of modern design when retired.

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- Recordkeeping: Monthly recordkeeping is now allowed when all binders used contain no more than 3.5 lb VOC/gal. This change will result in a savings of several labor hours per month. (Daily recordkeeping is still required if a source with over 25 TPY of VOC emissions chooses to use emissions averaging or an ECS rather than using compliant binders.)
- Definitions: Additional definitions have been added to clarify the new provisions. A formula for determining VOC content has now been provided.

Summary of New Rule 349 (Pharmaceutical, Cosmetic and Vitamin Manufacturing Operations)

Maricopa County is proposing to adopt a new rule, Rule 349, designed to control the emission of volatile organic compounds (VOCs) from the pharmaceutical, cosmetic and vitamin manufacturing industries.

Maricopa County does not meet National Ambient Air Quality Standards for ozone. The Clean Air Act requires non-attainment areas to implement Reasonably Available Control Technology (RACT) set forth in EPA's Control Techniques Guidance Document. EPA's Control Techniques Guidance Document for pharmaceuticals recommended that provisions apply to major sources. When Maricopa County was reclassified to "serious" for ozone, the major source threshold decreased to 50 tons per year. A pharmaceutical source exceeded 50 tons per year of VOCs in 1997, triggering the requirement to implement RACT for pharmaceuticals.

The proposed rule would set an emissions limit of 15 lbs. per day of VOCs (prior to capture by a control device), or control efficiency requirements for emissions points at affected sources or facilities such as storage tanks, surface condensers, reactors, centrifuges, distillation columns, sterilizers and air dryers. The proposed rule would also set a limit on the amount of VOCs that could be applied in the tablet coating process. Monitoring, recordkeeping and reporting requirements are also specified in the new rule.

The proposed rule would give flexibility to industry through an alternative, pollution prevention-based standard. The alternative standard would require reductions in the amounts of solvents (also toxic air pollutants) used during the manufacturing process. It would allow facilities to focus on improving processes by reducing solvent loss and incorporating solvent recovery and reuse techniques.

3. A demonstration of the grounds and evidence of compliance with A.R.S. 49-112(A) or A.R.S. 49-112(B)

Based on information and belief, the Control Officer of the Maricopa County Environmental Services Department affirms the following:

Maricopa County is in compliance with Arizona Revised Statutes (A.R.S.) 49-112(A)(3) in that Maricopa County is revising Rule 341 and proposing to adopt Rule 349. Although Rules 341 and 349 are more stringent than or are in addition to a provision of A.R.S. Title 49 or rules adopted by the Director, the rules comply with A.R.S. 49-112(A)(1) in that they are necessary to address a peculiar local condition. Maricopa County is the only ozone nonattainment area in the state and is classified as "serious". The rules comply with A.R.S. 49-112(A)(2) since they implement reasonably available control technology as required by a federal statute, the Clean Air Act, and Rule 341 has been approved by EPA as a State Implementation Plan (SIP) revision for the Maricopa County Ozone Nonattainment Area. Permit fees will not change as a result of these proposed actions. The fees were last revised in 1993 on the basis of a workload analysis and budget documents which demonstrated the reasonable costs of the County to issue and administer permit programs. A.R.S. 49-112(A)(3) as enacted in 1994 provided that any fee adopted under the rules will not exceed the reasonable costs of the County to issue or administer those permit programs.

4. Name and address of the person to whom persons may address questions or comments

Name: Rick Kramer-Howe, Air Quality Planner (Rule 341)
Or
Patty Nelson, Air Quality Planner (Rule 349)
Address: Maricopa County Environmental Services Department
Air Quality Division
1001 North Central Avenue #201
Phoenix, Arizona 85004
Telephone: Rick Kramer-Howe (602) 506-6706 or Patty Nelson (602) 506-6709
Fax: (602) 506-6179

5. Where persons may obtain a full copy of the proposed rules, ordinance, or other regulations

Name: Maricopa County Environmental Services Department
Air Quality Division
Address: 1001 North Central Avenue #201
Phoenix, Arizona 85004
Telephone: (602) 506-6010
Fax: (602) 506-6179

**NOTICE OF PUBLIC HEARING ON PROPOSED RULEMAKING
Pursuant to A.R.S. §§ 49-112(A) or 49-112(B)**

**MARICOPA COUNTY
ENVIRONMENTAL SERVICES DEPARTMENT, AIR QUALITY DIVISION**

1. **Heading and number of the proposed rules, ordinance, or other regulations that are the subject to the public hearing**
Rule 341 (Metal Casting)
New Rule 349 (Pharmaceutical, Cosmetic and Vitamin Manufacturing Operations)
2. **Date, time, and location of public hearing scheduled**
Date: Wednesday, December 16, 1998
Time: 9 am
Location: Maricopa County Board of Supervisors Auditorium
205 W. Jefferson St.
Phoenix, Arizona

Nature Of Public Hearing: To Discuss And Approve The Above Listed Rules.
3. **County personnel to whom questions and comments may be addressed**
Name: Rick Kramer-Howe, Air Quality Planner (Rule 341)
Or
Patty Nelson, Air Quality Planner (Rule 349)
Address: Maricopa County Environmental Services Department
Air Quality Division
1001 North Central Avenue #201
Phoenix, Arizona 85004
Telephone: Rick Kramer-Howe (602) 506-6706 or Patty Nelson (602) 506-6709
Fax: (602) 506-6179
4. **Any other pertinent information concerning the above described rules, ordinance, or other regulations**
Please refer to the Notice Of Proposed Rules which appears in this issue of the *Arizona Administrative Register*.