## AGENCY RECEIPT NOTICE OF FINAL RULEMAKING

### 1. Agency name:

Maricopa County Air Quality Department, Planning and Analysis Division

<u>2.</u>	The sections and rules involved in the rulemaking, listed in numerical order:					
	Rule 372:	Maricopa County Hazardous Air Pollutants (HAPs) Program	Rescind			
	Appendix H:	Procedures For Determining Ambient Air Concentrations For Hazardous				
		Air Pollutants	Rescind			

# NOTICE OF FINAL RULEMAKING MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS REGULATION III - CONTROL OF AIR CONTAMINANTS

#### RULE 372: MARICOPA COUNTY HAZARDOUS AIR POLLUTANTS (HAPS) PROGRAM

### **PREAMBLE**

<u>1.</u>	Rule affected		<b>Rulemaking action</b>				
	Rule 372:	Maricopa County Hazardous Air Pollutants (HAPs) Program	Rescind				
	Appendix H:	Procedures For Determining Ambient Air Concentrations For					
		Hazardous Air Pollutants	Rescind				
<u>2.</u>	Statutory auth	nority for the rulemaking:					
	Authorizing sta	atutes: A.R.S. §§ 49-474, 49-479, and 49-480					
	Implementing S	Statute: A.R.S. § 49-112					
<u>3.</u>	The effective of	late of the rule:					
	Date of adoptic	on: February 1, 2017					
<u>4.</u>	List of public	notices addressing the rulemaking:					
	Notice of Brief						
	Notice of Stakeholder Workshop: June 30, 2016						
	Notice of Proposed Rulemaking: 22 A.A.R. 2124, August 12, 2016						
	Notice of Maricopa County Board of Health Meeting: October 24, 2016						
<u>5.</u>	Name and add	lress of department personnel with whom persons may comm	unicate regarding the				
	<u>rulemaking:</u>						
	Name:	Johanna M. Kuspert or Hether Krause					
		Maricopa County Air Quality Department					
		Planning and Analysis Division					
	Address:	1001 N Central Avenue, Suite 125					
		Phoenix, Arizona 85004					
	Telephone:	(602) 506-6010					
	Fax:	(602) 506-6179					
	E-mail:	aqplanning@mail.maricopa.gov					

### **<u>6.</u>** Explanation of the rule, including the department's reasons for initiating the rulemaking:

The Maricopa County Air Quality Department (department) rescinded Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) and associated Appendix H (Procedures For Determining Ambient Air Concentrations For Hazardous Air Pollutants). Rule 372 and associated Appendix H were adopted on June 6, 2007 as required by Arizona Revised Statutes (A.R.S.) §49-480.04 (County Program For Control Of Hazardous Air Pollutants). The rules apply to new sources of HAPs or modified sources of HAPs, when such existing sources increase the emissions of a HAP by more than a de minimis amount. These rules regulate HAPs that are on the federal list of HAPs - Section 112(b) of the Clean Air Act and:

- List de minimis levels for Maricopa County HAPs in Rule 372, Table 2-Maricopa County HAPs De Minimis Levels
- List 24 minor source categories subject to the program in Rule 372, Table 1-Maricopa County HAPs Minor Source Categories

The rules are similar to and no more stringent than the Arizona Department of Environmental Quality's (ADEQ's) Arizona program for the regulation of HAPs. ADEQ's Arizona program for the regulation of HAPs was intended to replace the Arizona Ambient Air Quality Guidelines (AAAQG), which are health-based guidelines/acceptable concentration levels for hazardous air pollutants that are regulated by the State Of Arizona. The AAAQGs are not standards but residential screening values that help agencies make sound environmental risk management decisions to protect human health. ADEQ's Arizona program for the regulation of HAPs (rules R18-2-1701 through R18-2-1709) expired on August 26, 2016 and is no longer in effect.

On March 20, 2008 as a result of the final judgment of the Maricopa County Superior Court in Oak Canyon Manufacturing et al. v. Arizona State Department of Environmental Quality, CV 2006-018439, ADEQ's Arizona program for the regulation of HAPs is unenforceable. The superior court held that ADEQ does not have authority to regulate de minimis amounts of federal HAPs. Since Maricopa County's HAPs program (Rule 372 and associated Appendix H) is similar to and no more stringent than ADEQ's Arizona program for the regulation of HAPs and the superior court held that ADEQ does not have authority to regulate de minimis amounts of federal HAPs. Since Maricopa County's HAPs program for the regulation of HAPs and the superior court held that ADEQ does not have authority to regulate de minimis amounts of federal HAPs, the department rescinded Rule 372 and associated Appendix H.

The federal HAPs standards at 40 Code of Federal Regulations Part 61 and Part 63, which are incorporated by reference in Maricopa County Air Pollution Control Regulations Rule 370 (Federal Hazardous Air Pollutant Program), are separate and independent from Maricopa County's HAPs program (Rule 372 and associated Appendix H) and remain fully enforceable. Sources of federal HAPs in Maricopa County remain obligated to comply with any applicable requirements of the federal program.

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

Under A.R.S. § 49-479(C), a county may not adopt a rule or ordinance that is more stringent than the rules adopted by the Director of the Arizona Department of Environmental Quality (ADEQ) for similar sources unless it demonstrates compliance with the applicable requirements of A.R.S. §49-112.

§ 49-112 County regulation; standards

#### § 49-112(A)

When authorized by law, a county may adopt a rule, ordinance or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all of the following conditions are met:

- 1. The rule, ordinance or other regulation is necessary to address a peculiar local condition.
- 2. There is credible evidence that the rule, ordinance or other regulation is either;
  - (a) 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.
  - (b) 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, ordinance or other regulation is equivalent to federal statutes or regulation.
- 3. Any fee or tax adopted under the rule, ordinance or other regulation will not exceed the reasonable costs of the county to issue and administer that permit or plan approval program.

#### § 49-112(B)

When authorized by law, a county may adopt rules, ordinances or other regulations in lieu of a state program that are as stringent as a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if the county demonstrates that the cost of obtaining permits or other approvals from the county will approximately equal or be less than the fee or cost of obtaining similar permits or approvals under this title or any rule adopted pursuant to this title. If the state has not adopted a fee or tax for similar permits or approvals, the county may adopt a fee when authorized by law in the rule, ordinance or other regulation that does not exceed the reasonable costs of the county to issue and administer that permit or plan approval program.

The department is in compliance with A.R.S. §§ 49-112(A) and (B). The department rescinded Rule 372 and Appendix H.

# 8. Documents and/or studies referenced and/or reviewed for this rulemaking: Not applicable

# <u>9.</u> Showing of good cause why the rule is necessary to promote a statewide interest if the rule will <u>diminish a previous grant of authority of a political subdivision:</u> Not applicable

### 10. Summary of the economic, small business, and consumer impact: The following discussion addresses each of the elements required for an economic, small business and consumer impact statement under A.R.S. § 41-1055.

#### An identification of the rulemaking.

This rulemaking rescinded Rule 372 and associated Appendix H.

# An identification of the persons who will be directly affected by, bear the costs of or directly benefit from the rulemaking.

This rulemaking rescinded Rule 372 and associated Appendix H. The persons who will be directly affected by and bear the costs of this rulemaking will be new sources of HAPs or modified sources of HAPs, when such existing sources increase the emissions of a HAP by more than a de minimis amount. The federal HAPs standards at 40 Code of Federal Regulations Part 61 and Part 63, which are incorporated by reference in Maricopa County Air Pollution Control Regulations Rule 370 (Federal Hazardous Air Pollutant Program), are separate and independent from Maricopa County's HAPs program (Rule 372 and associated Appendix H) and remain fully enforceable. Sources of federal HAPs in Maricopa County remain obligated to comply with any applicable requirements of the federal program.

#### A cost benefit analysis of the following:

### (a) <u>The probable costs and benefits to the implementing agency and other agencies directly affected</u> by the implementation and enforcement of the rulemaking.

Because this rulemaking does not impose any new compliance burdens on permitted regulated entities or introduce additional regulatory requirements, the department deemed that none of the revisions have potentially significant economic impacts on permitted sources. In addition, the rulemaking will not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated.

# (b) The probable costs and benefits to a political subdivision of this state directly affected by the implementation and enforcement of the rulemaking

This rulemaking will not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated.

## (c) The probable costs and benefits to businesses directly affected by the rulemaking, including any anticipated effect on the revenues or payroll expenditures of employers who are subject to the rulemaking.

The department does not anticipate that this rulemaking will have a significant impact on a person's income, revenue, or employment in this state related to this activity. This rulemaking will not impose increased monetary or regulatory costs on individuals so regulated.

### <u>A general description of the probable impact on private and public employment in businesses,</u> <u>agencies and political subdivisions of this state directly affected by the rulemaking.</u>

The rulemaking will not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated.

#### A statement of the probable impact of the rulemaking on small businesses.

This rulemaking will not impose increased monetary or regulatory costs on any permitted business, persons, or individuals so regulated.

#### (a) An identification of the small businesses subject to the rulemaking.

This rulemaking rescinded Rule 372 and associated Appendix H. Small businesses subject to this rulemaking include new sources of HAPs or modified sources of HAPs, when such existing sources increase the emissions of a HAP by more than a de minimis amount. The federal HAPs standards at 40 Code of Federal Regulations Part 61 and Part 63, which are incorporated by reference in Maricopa County Air Pollution Control Regulations Rule 370 (Federal Hazardous Air Pollutant Program), are separate and independent from Maricopa County's HAPs program (Rule 372 and associated Appendix H) and remain fully enforceable. Sources of federal HAPs in Maricopa County remain obligated to comply with any applicable requirements of the federal program.

#### (b) The administrative and other costs required for compliance with the rulemaking.

This rulemaking rescinded Rule 372 and associated Appendix H. The federal HAPs standards at 40 Code of Federal Regulations Part 61 and Part 63, which are incorporated by reference in Maricopa County Air Pollution Control Regulations Rule 370 (Federal Hazardous Air Pollutant Program), are separate and independent from Maricopa County's HAPs program (Rule 372 and associated Appendix H) and remain fully enforceable. Sources of federal HAPs in Maricopa County remain obligated to comply with any applicable requirements of the federal program.

#### (c) A description of the methods that the agency may use to reduce the impact on small businesses.

#### (i) Establishing less costly compliance requirements in the rulemaking for small businesses.

This rulemaking rescinded Rule 372 and associated Appendix H. The federal HAPs standards at 40 Code of Federal Regulations Part 61 and Part 63, which are incorporated by reference in Maricopa County Air Pollution Control Regulations Rule 370 (Federal Hazardous Air Pollutant Program), are separate and independent from Maricopa County's HAPs program (Rule 372 and associated Appendix H) and remain fully enforceable. Sources of federal HAPs in Maricopa County remain obligated to comply with any applicable requirements of the federal program.

# (ii) Establishing less costly schedules or less stringent deadlines for compliance in the rulemaking.

This rulemaking rescinded Rule 372 and associated Appendix H. The federal HAPs standards at 40 Code of Federal Regulations Part 61 and Part 63, which are incorporated by reference in Maricopa County Air Pollution Control Regulations Rule 370 (Federal Hazardous Air Pollutant

Program), are separate and independent from Maricopa County's HAPs program (Rule 372 and associated Appendix H) and remain fully enforceable. Sources of federal HAPs in Maricopa County remain obligated to comply with any applicable requirements of the federal program.

#### (iii) Exempting small businesses from any or all requirements of the rulemaking.

This rulemaking rescinded Rule 372 and associated Appendix H. The federal HAPs standards at 40 Code of Federal Regulations Part 61 and Part 63, which are incorporated by reference in Maricopa County Air Pollution Control Regulations Rule 370 (Federal Hazardous Air Pollutant Program), are separate and independent from Maricopa County's HAPs program (Rule 372 and associated Appendix H) and remain fully enforceable. Sources of federal HAPs in Maricopa County remain obligated to comply with any applicable requirements of the federal program.

# (d) <u>The probable cost and benefit to private persons and consumers who are directly affected by the</u> <u>rulemaking.</u>

This rulemaking does not impose any new compliance burdens on regulated entities that are permitted or introduce additional regulatory requirements and will not impose increased monetary or regulatory costs on any permitted business, persons, or individuals so regulated. As such, there are no costs to pass through to consumers, which means there are no impacts on consumers.

#### A statement of the probable effect on state revenues.

The rulemaking will not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated. Without costs to pass through to customers, there is no projected change in consumer purchase patterns and, thus, no impact on state revenues from sales taxes.

# <u>A description of any less intrusive or less costly alternative methods of achieving the purpose of the rulemaking.</u>

This rulemaking rescinded Rule 372 and associated Appendix H. The federal HAPs standards at 40 Code of Federal Regulations Part 61 and Part 63, which are incorporated by reference in Maricopa County Air Pollution Control Regulations Rule 370 (Federal Hazardous Air Pollutant Program), are separate and independent from Maricopa County's HAPs program (Rule 372 and associated Appendix H) and remain fully enforceable. Sources of federal HAPs in Maricopa County remain obligated to comply with any applicable requirements of the federal program.

# **11.** Name and address of department personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact:

Name:

Johanna M. Kuspert or Hether Krause Maricopa County Air Quality Department Planning and Analysis Division

Address:	1001 N Central Avenue, Suite 125			
	Phoenix, AZ 85004			
Telephone:	(602) 506-6010			
Fax:	(602) 506-6179			
E-mail:	aqplanning@mail.maricopa.gov			

- 12. Description of the changes between the proposed rule, including supplemental notices and final rule: No additional changes were made, since the Notice of Proposed Rulemaking was published on August 12, 2016 (22 A.A.R. 2124).
- 13.Summary of the comments made regarding the rule and the department response to them:No comments were submitted during the 30-day comment period August 19-September 19, 2016
- 14.
   Any other matters prescribed by statute that are applicable to the specific department or to any specific rule or class of rules:

   Not applicable
- **15. Incorporations by reference and their location in the rule:** Not applicable
- 16.Was this rule previously an emergency rule?No
- **<u>17.</u>** Full text of the rule follows:

REGULATION III CONTROL OF AIR CONTAMINANTS

#### RULE 372

#### MARICOPA COUNTY HAZARDOUS AIR POLLUTANTS (HAPS) PROGRAM

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Adopted 06/06/07

#### MARICOPA COUNTY

#### AIR POLLUTION CONTROL REGULATIONS

#### **REGULATION III CONTROL OF AIR CONTAMINANTS**

#### **RULE 372**

#### MARICOPA COUNTY HAZARDOUS AIR POLLUTANTS (HAPS) PROGRAM

#### SECTION 100 GENERAL

101 PURPOSE: To implement/establish procedures for a Maricopa County program for the regulation of federally listed hazardous air pollutants (HAPs).

#### 102 APPLICABILITY:

- 102.1 Unless otherwise noted, this rule applies to:
  - a. Minor sources of Maricopa County hazardous air pollutants (HAPs) that are in one of the source categories listed in Table 1 Maricopa County HAPs Minor Source Categories of this rule; and
  - b. Major sources of Maricopa County hazardous air pollutants (HAPs).

Table 1	Maricopa (	County HA	Ps Minor S	Source Cate	gories

Primary SIC Code	Source Category
<del>243</del> 4	Wood Kitchen Cabinets
<del>2451</del>	Mobile Homes
<del>2621</del>	Paper Mills
<del>2679</del>	Converted Paper Products Not Elsewhere Classified
<del>2851</del>	Paints And Allied Products
<del>2911</del>	Petroleum Refining
<del>3086</del>	Plastics Foam Products
<del>3088</del>	Plastics Plumbing Fixtures
<del>3089</del>	Plastics Products Not Elsewhere Classified
<del>3241</del>	Cement Hydraulic
<del>3281</del>	Cut Stone And Stone Products
<del>3296</del>	Mineral Wool
<del>3312</del>	Blast Furnaces And Steel Mills

<del>3331</del>	Primary Copper
<del>3411</del>	Metal Cans
<del>3</del> 444	Sheet Metal Work
<del>3451</del>	Screw Machine Products
<del>3479</del>	Metal Coating And Allied Services
<del>3585</del>	Refrigeration And Heating Equipment
<del>3672</del>	Printed Circuit Boards
<del>3999</del>	Manufacturing Industries Not Elsewhere Classified
4 <u>922</u>	Natural Gas Transmission
<del>5169</del>	Chemicals And Allied Products Not Elsewhere Classified
<del>5171</del>	Petroleum Bulk Stations And Terminals

102.2 If the Clean Air Act has established provisions including specific schedules for the regulation of source categories under Section 112(e)(5) and Section 112(n) of the Act, those provisions and schedules shall apply to the regulation of those source categories.

- 103 EXEMPTIONS: This rule shall not apply to:
  - 103.1 An affected source for which a standard under 40 Code Of Federal Regulations (CFR) Part 61 National Emission Standards For Hazardous Air Pollutants (NESHAPS) or 40 CFR Part 63 National Emission Standards For Hazardous Air Pollutants For Source Categories imposes an emissions limitation.
  - 103.2 An affected source at a minor source of Maricopa County HAPs, if the minor source is in a source category for which a standard under 40 CFR Part 63 National Emission Standards For Hazardous Air Pollutants For Source Categories has been adopted and agrees to comply with the emissions limitation under Rule 220 Non Title V Permit Provisions, Section 304 Permits Containing Voluntarily Accepted Emissions Limitations, Controls, Or Other Requirements (Synthetic Minor) of these rules.
  - 103.3 Sources for which the Administrator has made one of the following findings under Section 112(n) of the Act (42 U.S.C. 7412(n)):
    - a. A finding that regulation is not appropriate or necessary, or
    - b. A finding that the source should apply alternative control strategies.
  - 103.4 Any category or subcategory of facilities licensed by the Nuclear Regulatory Commission. The Control Officer shall not adopt or enforce any standard or limitation respecting emissions of radionuclides,

which is more stringent than the standard or limitation adopted by the Administrator under Section 112 of the Act.

- 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 purpose of this rule, the following definition shall apply:
- 201 ACUTE ADVERSE EFFECTS TO HUMAN HEALTH Those effects described in Arizona Revised Statutes (ARS) §49 401.01(2) Air Quality General Provisions Definitions that are of short duration or rapid onset. In ARS 49 401.01(2) Air Quality General Provisions Definitions, "Adverse effects to human health" means those effects that result in or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, including adverse effects that are known to be or may reasonably be anticipated to be caused by substances that are acutely toxic, chronically toxic, carcinogenic, mutagenic, teratogenic, neurotoxic, or causative of reproductive dysfunction.
- 202 ACUTE AMBIENT AIR CONCENTRATION (AAAC) That concentration of a hazardous air pollutant, in the ambient air, above which the general population, including susceptible populations, could experience acute adverse effects to human health.
- 203 AFFECTED SOURCE – Notwithstanding the definition of "affected source" as defined in Rule 100 General Provisions And Definitions of these rules (a source that includes one or more emissions units which are subject to emission reduction requirements or limitations under Title IV Acid Deposition Control of the Act), for the purpose of this rule "affected source" has the meaning of "affected source" contained in 40 CFR 63.2 National Emission Standards For Hazardous Air Pollutants For Source Categories Definitions as of July 1, 2004 (and no future amendments or editions) (the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a Section 112(c) source category or subcategory for which a Section 112(d) standard or other relevant standard is established pursuant to Section 112 of the Act. Each relevant standard will define the "affected source", as defined in 40 CFR 63.2 National Emission Standards For Hazardous Air Pollutants For Source Categories Definitions unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term "affected source", as used in 40 CFR 63.2 National Emission Standards For Hazardous Air Pollutants For Source Categories Definitions, is separate and distinct from any other use of that term in these rules such as those implementing Title IV of the Act. Affected source may be defined differently for 40 CFR Part 63-National Emission Standards For Hazardous Air Pollutants For Source Categories than affected facility and stationary source in 40 CFR Part 60 Standards Of Performance For New Stationary Sources and 40 CFR Part 61 National Emission Standards For Hazardous Air Pollutants (NESHAPS), respectively. This definition of "affected source", and the procedures for adopting an alternative definition of "affected source," shall apply to each Section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002).

- 204 AMBIENT AIR CONCENTRATION (AAC) That concentration of a hazardous air pollutant in the ambient air, listed in Section 306 Risk Management Analyses of this rule or determined according to Section 306.3(b) Risk Management Analyses Health Based Ambient Air Concentrations Of Maricopa County HAPs of this rule or Section 306.3(c) Risk Management Analyses Health Based Ambient Air Concentrations Of Maricopa County HAPs of this rule, above which the general population, including susceptible populations, could experience adverse effects to human health.
- 205 ARIZONA MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (AZMACT) An emission standard that requires the maximum degree of reduction in emissions of hazardous air pollutants subject to these rules, including a prohibition on the emissions where achievable, and that the Control Officer, according to Section 305 Case By Case AZMACT Determination of this rule, has determined to be achievable by an affected source to which the standard applies, through application of measures, processes, methods, systems, or techniques, including measures that:
  - 205.1 Reduce the volume of, or eliminate emissions of, the pollutants through process changes, substitution of materials, or other modifications;
  - 205.2 Enclose systems or processes to eliminate emissions;
  - 205.3 Collect, capture, or treat the pollutants when released from a process, stack, storage, or fugitive emissions point;
  - 205.4 Are design, equipment, work practice, or operational standards, including requirements for operator training or certification; or
  - 205.5 Are a combination of Section 205.1 thru Section 205.4 of this rule.
- 206 CHEMICAL ABSTRACT SERVICE (CAS) NUMBER A unique, identifying number assigned by the Chemical Abstract Service to each distinct chemical substance.
- 207 CHRONIC ADVERSE EFFECTS TO HUMAN HEALTH Those effects described in ARS §49 401.01(2) Air Quality Generally General Provisions Definitions that are persistent, recurring, or long term in nature or that are delayed in their onset. ARS 49 401.01(2) Air Quality Generally General Provisions Definitions defines "adverse effects to human health" as those effects that result in or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, including adverse effects that are known to be or may reasonably be anticipated to be caused by substances that are acutely toxic, chronically toxic, carcinogenic, mutagenic, teratogenic, neurotoxic, or causative of reproductive dysfunction.
- 208 CHRONIC AMBIENT AIR CONCENTRATION (CAAC) That concentration of a hazardous air pollutant, in the ambient air, above which the general population, including susceptible populations, could experience chronic adverse effects to human health.
- 209 FEDERALLY LISTED HAZARDOUS AIR POLLUTANT Any pollutant adopted under Section 301 Maricopa County List Of Hazardous Air Pollutants of this rule.

210 HAZARDOUS AIR POLLUTANT Any federally listed hazardous air pollutant.

#### 211 MAJOR SOURCE OF MARICOPA COUNTY HAZARDOUS AIR POLLUTANTS (HAPs)-

- 211.1 A stationary source that emits or has the potential to emit in the aggregate, including fugitive emissions,
   10 tons per year or more of any Maricopa County hazardous air pollutant or 25 tons per year or more of any combination of Maricopa County hazardous air pollutants.
- 211.2 Any change to a minor source of hazardous air pollutants that would increase its emissions to the qualifying levels in Section 211.1 of this rule.
- 212 MARICOPA COUNTY HAZARDOUS AIR POLLUTANT (HAP) Any federally listed hazardous air pollutant.
- 213 MINOR SOURCE OF MARICOPA COUNTY HAZARDOUS AIR POLLUTANTS (HAPs) A stationary source that emits or has the potential to emit, including fugitive emissions, one ton or more but less than 10 tons per year of any hazardous air pollutant or two and one half tons or more but less than 25 tons per year of any combination of hazardous air pollutants.

#### 214 MODIFICATION / MODIFY

214.1 A physical change in, or change in the method of operation of, a source that increases the actual emissions of any Maricopa County hazardous air pollutant (HAP) emitted by the source by more than any de minimis amount listed in Table 2 Maricopa County HAPs De Minimis Levels, or which results in the emission of any HAP not previously emitted by the source by more than any de minimis amount listed in Table 2 Maricopa County HAPs De Minimis Levels.

Chemical	De Minimis	De Minimis
	Lb/Hour	Lb/Year
1,1,1 Trichloroethane (Methyl Chloroform)	<del>117</del>	<del>14,247</del>
<del>1,1,2,2-Tetrachloroethane</del>	<del>N/A</del>	<del>0.20</del>
1,3 Butadiene	<del>N/A</del>	<del>0.39</del>
1,4 Dichlorobenzene	N/A	<del>1.9</del>
2,2,4 Trimethylpentane	<del>51</del>	<del>N/A</del>
2,4 Dinitrotoluene	<del>N/A</del>	<del>0.13</del>
2 Chloroacetophenone	<del>N/A</del>	<del>0.19</del>
Acetaldehyde	<del>N/A</del>	<del>5.3</del>

#### Table 2 Maricopa County HAPs De Minimis Levels

Acetophenone	1.4	<del>2,261</del>
Acrolein	0.013	0.129
Acrylonitrile	N/A	0.17
Antimony Compounds (Selected Compound: Antimony)	0.71	9.0
Arsenic Compounds (Selected Compound: Arsenic)	N/A	0.0027
Benzene	N/A	<del>1.5</del>
Benzyl Chloride	N/A	<del>0.25</del>
Beryllium Compounds (Selected Compound: Beryllium)	0.000707	<del>0.0049</del>
Biphenyl	2.1	<del>1,130</del>
bis (2 Ethylhexy) Phthalate	0.71	3.0
Bromoform	0.42	
Cadmium Compounds (Selected Compound: Cadmium)	N/A	0.0065
Carbon Disulfide	18	4,522
Carbon Tetrachloride	N/A	0.78
Carbonyl Sulfide	<del>1.7</del>	N/A
Chlorobenzene	57	<del>6,442</del>
Chloroform	N/A	2.2
Chromium Compounds (Selected Compound: Hexavalent	N/A	0.0010
Cobalt Compounds (Selected Compound: Cobalt)	<del>N/A</del>	<del>0.0042</del>
Cumene	<del>53</del>	<del>2,583</del>
Cyanide Compounds (Selected Compound: Hydrogen Cyanide)	0.22	19
Dibenzofurans	1.4	45
Dichloromethane (Methylene Chloride)	20	25
Dimethyl Formamide	9.3	194
Dimethyl Sulfate	0.018	N/A
Ethyl Benzene	14	<del>6,442</del>

Ethyl Chloride (Chloroethane)	71	64,420
Etylene Dibromide (Dibromoethane)	<del>N/A</del>	0.020
Ethylene Dichloride (1,2 Dichloroethane)	<del>N/A</del>	0.45
Ethylene Glycol	2.8	<del>2,583</del>
Ethylidene Dichloride (1,1 Dichloroethane)	354	<del>3,230</del>
Formaldehyde	N/A	0.90
Glycol Ethers (Selected Compound: Diethylene Glycol, Monoethyl		19
Ether)		
Hexachlorobenzene	N/A	<del>0.026</del>
Hexane	<del>659</del>	<del>13,689</del>
Hydrochloric Acid	0.93	<del>129</del>
Hydrogen Fluoride (Hydrofluoric Acid)	<del>0.56</del>	90
Isophorone	0.71	<del>12,946</del>
Manganese Compounds (Selected Compound: Manganese)	0.14	0.32
Mercury Compounds (Selected Compound: Elemental Mercury)	0.058	1.9
Methanol	53	<del>25,830</del>
Methyl Bromide	<del>15</del>	32
Methyl Chloride	67	<del>582</del>
Methyl Hydrazine	N/A	0.0024
Methyl Isobutyl Ketone (Hexone)	28	<del>19,388</del>
Methyl Methacrylate		4,522
Methyl Tert Butyl Ether	N/A	46
N, N-Dimethylaniline	1.4	45
Naphthalene	N/A	0.35
Nickel Compounds (Selected Compound: Nickel Refinery Dust)	N/A	0.049
Phenol	3.3	1,295
Polychlorinated Biphenyls (Selected Compound: Aroclor 1254)	N/A	0.12

Polycyclic Organic Matter (Selected Compound: Benzo(a)pyrene)	N/A	0.013
Propionaldehyde	N/A	<del>5.3</del>
Propylene Dichloride	-14	<del>26</del>
Selenium Compounds (Selected Compound: Selenium)	<del>0.028</del>	113
Styrene	<del>31</del>	<del>6,442</del>
Tetrachloroethylene (Perchloroethylene)	N/A	2.0
Toluene	<del>109</del>	<del>146,766</del>
Trichlorethylene	N/A	0.10
Vinyl Acetate	22	<del>1,295</del>
Vinyl Chloride	N/A	<del>1.3</del>
Vinylidene Chloride (1,2 Dichloroethylene)	2.1	<del>1,295</del>
Xylene (Mixed Isomers)	<del>98</del>	<del>6</del> 44

- 214.2 A physical change in, or change in the method of operation of, a source that increases the actual emissions of any Maricopa County HAPs emitted by the source, if it results in total source emissions that exceed one ton per year (tpy) of any individual HAP or 2.5 tpy of any combination of HAPs.
- 214.3 A physical change in, or change in the method of operation of, a source is not a modification subject to this rule, if:
  - a. The change, together with any other changes implemented or planned by the source, qualifies for an alternative emission limitation under Section 112(i)(5) of the Act;
  - b. The Clean Air Act Section 112(d) or Section 112(f) imposes a standard requiring the change that is implemented after the Administrator promulgates the standard;
  - e. The change is routine maintenance, repair, or replacement;
  - d. The change is the use of an alternative fuel or raw material by reason of an order under Section 2(a) and (b) of the Energy Supply And Environmental Coordination Act of 1974, 15 U.S.C. 792, or by reason of a natural gas curtailment plan under the Federal Power Act, 16 U.S.C. 792 825r;
  - e. The change is the use of an alternative fuel by reason of an order or rule under Section 125 of the Act;
  - f. The change is the use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;

- g. The change is an increase in the hours of operation or in the production rate, unless the change would be prohibited under an enforceable permit condition; or
- h. The change is any change in ownership at a stationary source.
- 215 POTENTIAL TO EMIT / POTENTIAL EMISSION RATE The maximum capacity of a stationary source to emit a pollutant, excluding secondary emissions, taking into account controls that are enforceable under any federal, state, or local law, rule, or regulation or that are inherent in the design of the source.
- 216 SIC CODE The standard industrial classification code number for a source category derived from 1987 Standard Industrial Classification Manual (U.S. Office Of Management And Budget, 1987).
- 217 TECHNOLOGY TRANSFER The process by which existing control technologies that have been successfully applied in other source categories that have similar processes or emissions units are reviewed for potential use in a different source category.

#### SECTION 300 - STANDARDS

301 MARICOPA COUNTY LIST OF HAZARDOUS AIR POLLUTANTS: The following federally listed hazardous air pollutants listed in Section 112(b)(1) of the Act (42 U.S.C. 7412(b)(1)) are hazardous air pollutants (HAPs) under this rule:

CAS No.	HAPs
<del>75070</del>	Acetaldehyde
<del>60355</del>	Acetamide
<del>75058</del>	Acetonitrile
<del>98862</del>	Acetophenone
<del>53963</del>	2 Acetylaminofluorene
<del>107028</del>	Acrolein
<del>79061</del>	Acrylamide
<del>79107</del>	Acrylic acid
<del>107131</del>	Acrylonitrile
<del>107051</del>	Allyl chloride
<del>92671</del>	4 Aminobiphenyl
<del>62533</del>	Aniline
<del>90040</del>	o Anisidine
<del>1332214</del>	Asbestos

- 71432 Benzene (Including benzene from gasoline)
- 92875 Benzidine
- 98077 Benzotrichloride
- 100447 Benzyl chloride
- 92524 Biphenyl
- 117817 Bis(2 ethylhexyl)phthalate (DEHP)
- 542881 Bis(chloromethyl)ether
- 75252 Bromoform
- 106990 1,3 Butadiene
- 156627 Calcium cyanamide
- 133062 Captan
- 63252 Carbaryl
- 75150 Carbon disulfide
- 56235 Carbon tetrachloride
- 463581 Carbonyl sulfide
- 120809 Catechol
- 133904 Chloramben
- 57749 Chlordane
- 7782505 Chlorine
- 79118 Chloroacetic acid
- 532274 2 Chloroacetophenone
- 108907 Chlorobenzene
- 510156 Chlorobenzilate
- 67663 Chloroform
- 107302 Chloromethyl methyl ether
- 126998 Chloroprene
- 1319773 Cresols/Cresylic acid (Isomers and mixture)
- 95487 o Cresol

- 108394 m Cresol
- 106445 p-Cresol
- 98828 Cumene
- 94757 2,4 D, salts and esters
- 3547044 DDE
- 334883 Diazomethane
- 132649 Dibenzofurans
- 96128 1,2 Dibromo 3 chloropropane
- 84742 Dibutylphthalate
- 106467 1,4 Dichlorobenzene(p)
- 91941 3,3 Dichlorobenzidene
- 111444 Dichloroethyl ether (Bis(2 chloroethyl)ether)
- 542756 1,3 Dichloropropene
- 62737 Dichlorvos
- 111422Diethanolamine
- 121697 N,N Diethylaniline (N,N Dimethylaniline)
- 64675 Diethyl sulfate
- 119904 3,3 Dimethoxybenzidine
- 60117 Dimethyl aminoazobenzene
- 119937 3,3' Dimethyl benzidine
- 79447 Dimethyl carbamoyl chloride
- 68122 Dimethyl formamide
- 57147 1,1 Dimethyl hydrazine
- 131113 Dimethyl phthalate
- 77781 Dimethyl sulfate
- 534521 4,6 Dinitro o cresol, and salts
- 51285 2,4 Dinitrophenol
- 121142 2,4 Dinitrotoluene

- 123911 1,4 Dioxane (1,4 Diethyleneoxide)
- 122667 1,2 Diphenylhydrazine
- 106898 Epichlorohydrin (1 Chloro 2,3 epoxypropane)
- 106887 1,2 Epoxybutane
- 140885 Ethyl acrylate
- 100414 Ethyl benzene
- 51796 Ethyl carbamate (Urethane)
- 75003 Ethyl chloride (Chloroethane)
- 106934 Ethylene dibromide (Dibromoethane)
- 107062 Ethylene dichloride (1,2 Dichloroethane)
- 107211 Ethylene glycol
- 151564 Ethylene imine (Aziridine)
- 75218 Ethylene oxide
- 96457 Ethylene thiourea
- 75343 Ethylidene dichloride (1,1 Dichloroethane)
- 50000 Formaldehyde
- 76448 Heptachlor
- Hexachlorobenzene
- 87683 Hexachlorobutadiene
- 77474 Hexachlorocyclopentadiene
- 67721 Hexachloroethane
- 822060 Hexamethylene 1,6 diisocyanate
- 680319 Hexamethylphosphoramide
- 110543 Hexane
- 302012 Hydrazine
- 7647010 Hydrochloric acid
- 7664393 Hydrogen fluoride (Hydrofluoric acid)
- 123319 Hydroquinone

- 78591 Isophorone <u>58899</u> Lindane (All isomers) 108316 Maleic anhydride 67561 Methanol 72435 Methoxychlor 74839 Methyl bromide (Bromomethane) 74873 Methyl chloride (Chloromethane) 71556 Methyl chloroform (1,1,1 Trichloroethane) 60344 Methyl hydrazine 74884 Methyl iodine (Iodomethane) 108101 Methyl isobutyl ketone (Hexone) 624839 Methyl isocyanate 80626 Methyl methacrylate 1634044 Methyl tert butyl ether 101144 4,4 Methylene bis(2,chloroaniline) 75092 Methylene chloride (Dichloromethane) 101688 Methylene diphenyl diisocyanate (MDI) 101779 4,4 Methylenedianiline <del>91203</del> Naphthalene <del>98953</del> Nitrobenzene
  - 92933 4 Nitrobiphenyl
  - 100027 4 Nitrophenol
  - 79469 2 Nitropropane
  - 684935 N Nitroso N methylurea
  - 62759 N Nitrosodimethylamine
  - 59892 N Nitrosomorpholine
  - 56382 Parathion
  - 82688 Pentachloronitrobenzene (Quintobenzene)

- 87865 Pentachlorophenol 108952 Phenol 106503 p Phenylenediamine <del>75445</del> Phosgene 7803512 Phosphine 7723140 **Phosphorus** 85449 Phthalic anhydride 1336363 Polychlorinated biphenyls (Aroclors) 1120714 1,3 Propane sultone <del>57578</del> beta Propiolactone 123386 Propionaldehyde 114261 Propoxur (Baygon) 78875 Propylene dichloride (1,2 Dichloropropane) 75569 Propylene oxide 75558 1,2 Propylenimine (2 Methyl aziridine) <del>91225</del> Quinoline 106514 Quinone 100425 Styrene <del>96093</del> Styrene oxide 1746016 2,3,7,8 Tetrachlorodibenzo p dioxin <del>79345</del> 1,1,2,2 Tetrachloroethane 127184 Tetrachloroethylene (Perchloroethylene) 7550450 Titanium tetrachloride 108883 Toluene <del>95807</del> 2,4 Toluene diamine <del>584849</del> 2,4 Toluene diisocyanate <del>95534</del> o Toluidine
- 8001352 Toxaphene (Chlorinated camphene)

- 120821 1,2,4 Trichlorobenzene
- 79005 1,1,2 Trichloroethane
- 79016 Trichloroethylene
- 95954 2,4,5 Trichlorophenol
- 88062 2,4,6 Trichlorophenol
- 121448 Triethylamine
- 1582098 Trifluralin
- 540841 2,2,4 Trimethylpentane
- 108054 Vinyl acetate
- 593602 Vinyl bromide
- 75014 Vinyl chloride
- 75354 Vinylidene chloride (1,1-Dichloroethylene)
- 1330207 Xylenes (Isomers and mixture)
- 95476 o Xylenes
- 108383 m Xylenes
- 106423 p Xylenes

#### Antimony Compounds

Arsenic Compounds (Inorganic including arsine)

Beryllium Compounds

Cadmium Compounds

**Chromium Compounds** 

Cobalt Compounds

#### Coke Oven Emissions

**Cyanide Compounds** 

X'CN where X = H' or any other group where a formal dissociation may occur. For example, KCN or Ca(CN)<sub>2</sub>

**Glycol Ethers** 

a. Glycol ethers include mono and di ethers of ethylene glycol, diethylene glycol, and triethylene glycol R (OCH<sub>2</sub>CH<sub>2</sub>)[n] OR' where:

(1) n = 1, 2, or 3;

- (2) R = alkyl C7 or less; or
- (3) R = phenyl or alkyl substituted phenyl;
- (4) R'= H or alkyl C7 or less; or
- (5) OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate
- b. Glycol ethers does not include ethylene glycol monobutyl ether

Lead Compounds

Manganese Compounds

Mercury Compounds

Fine Mineral Fibers (Including mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag or other mineral derived fibers of average diameter 1 micrometer or less)

Nickel Compounds

Polycyclic Organic Matter (Including organic compounds with more than one benzene ring and which have a boiling point greater than or equal to 100°C) Radionuclides (Including radon. Radionuclide is a type of atom which spontaneously undergoes radioactive decay)

Selenium Compounds

- 302 NOTICE OF TYPES AND AMOUNTS OF HAPS: An owner and/or operator of a source subject to this rule shall provide the Control Officer with notice, in a permit application, of the types and amounts of HAPs emitted by the source. The notice shall include readily available data regarding emissions from the source. The Control Officer shall not require the owner and/or operator to conduct performance tests, sampling, or monitoring in order to fulfill the requirements of this section of this rule.
- 303 MODIFICATIONS; PERMITS; PERMIT REVISIONS:
  - 303.1 Any person who constructs or modifies a source that is subject to this rule must first obtain a permit or significant permit revision that complies with:
    - a. Rule 210 Title V Permit Provisions of these rules or Rule 220 Non Title V Permit Provisions of these rules; and
    - b. Section 303.2 of this rule or Section 303.3 of this rule.

- 303.2 A permit or significant permit revision that the Control Officer issues to a new or modified minor source of Maricopa County hazardous air pollutants (HAPs) that is in one of the source categories listed in Table 1 Maricopa County HAPs Minor Source Categories of this rule shall impose HAPRACT under Section 304 of this rule, unless the applicant demonstrates, with a risk management analysis (RMA) under Section 306 of this rule, that the imposition of HAPRACT is not necessary to avoid adverse effects to human health or adverse environmental effects.
- 303.3 A permit or significant permit revision that the Control Officer issues to a new or modified major source of Maricopa County hazardous air pollutants (HAPs) shall impose AZMACT under Section 305 of this rule, unless the applicant demonstrates, with a risk management analysis (RMA) under Section 306 of this rule, that the imposition of AZMACT is not necessary to avoid adverse effects to human health or adverse environmental effects.
- 303.4 If the Control Officer establishes a general permit establishing HAPRACT according to Rule 230-General Permits of these rules, the following apply:
  - a. The owner and/or operator of a source covered by that general permit may obtain a variance from HAPRACT by complying with a risk management analysis (RMA) under Section 306 of this rule when the source applies for the general permit;
  - b. If the owner and/or operator makes the applicable demonstration required by a risk management analysis (RMA) under Section 306 of this rule and otherwise qualifies for the general permit, the Control Officer shall approve the application according to ARS §49 480 County Air Pollution Control Permits; Fees and issue an authorization to operate granting a variance from the specific provisions of the general permit relating to HAPRACT; and
  - c. Except as modified by a variance, the general permit governs the source.
- 303.5 When determining whether HAP emissions from a new source or modification exceed the thresholds prescribed in Section 211 Definition Of Major Source Of Maricopa County Hazardous Air Pollutants (HAPs) of this rule and Section 213 Minor Source Of Maricopa County Hazardous Air Pollutants (HAPs) of this rule or a de minimis amount described in Table 2 Maricopa County HAPs De Minimis Levels in Section 214.1 of this rule, the Control Officer shall exclude particulate matter emissions that consist of natural crustal material and that are produced either by natural forces, such as wind or erosion, or by anthropogenic activities, such as agricultural operations, excavation, blasting, drilling, handling, storage, earthmoving, crushing, grinding, or traffic over paved or unpaved roads, or other similar activities.
- 303.6 In addition to the requirements of Appendix B Standard Permit Application Form And Filing Instructions of these rules, an application for a permit or a permit revision required under this section of this rule shall include one of the following:
  - The applicant's proposal and documentation for HAPRACT under Section 304 of this rule;

- b. The applicant's proposal and documentation for AZMACT under Section 305 of this rule; or
- c. A risk management analysis (RMA) submitted under Section 306 of this rule.
- 303.7 Any applicant for a permit or a permit revision under this rule may request accelerated permit processing under Rule 200 Permit Requirements.

#### 304 CASE BY CASE HAPRACT DETERMINATION:

- 304.1 The applicant shall include in the application sufficient documentation to show that the proposed control technology or methodology meets the requirements of ARS §49 480.04 County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and of this section of this rule.
- 304.2 An applicant subject to Section 303.2 Modifications; Permits; Permit Revisions of this rule shall propose HAPRACT for the new source or modification, to be included in the applicant's permit or significant permit revision. The applicant shall document each of the following steps:
  - a. The applicant shall identify the range of applicable control technologies, including:
    - A survey of similar emission sources to determine the emission limitations currently achieved in practice in the United States;
    - (2) Controls applied to similar source categories, emissions units, or gas streams through technology transfer; and
    - (3) Innovative technologies that are demonstrated to be reliable, that reduce emissions for HAP under review at least to the extent achieved by the control technology that would otherwise have been proposed and that meets all the requirements of ARS §49 480.04 County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and this section of this rule.
  - The applicant shall propose as HAPRACT one of the control technologies identified under Section 304.2(a) Case By Case HAPRACT Determination of this rule and shall provide:
    - The rationale for selecting the specific control technologies from the range identified in Section 304.2(a) Case By Case HAPRACT Determination;
    - (2) Estimated control efficiency, described as percent HAP removed;
    - (3) Expected emission rates in tons per year and pounds per hour;
    - (4) Expected emission reduction in tons per year and pounds per hour;
    - (5) Economic impacts and cost effectiveness of implementing the proposed control technology;
    - (6) Other environmental impacts of the proposed control technology; and
    - (7) Energy impact of the proposed technology.

- c. The applicant shall identify rejected control technologies identified in Section 304.2(a) Case By Case HAPRACT Determination of this rule and shall provide for each rejected control technology:
  - The rationale for rejecting the specific control technologies identified in Section 304.2(a)
     Case By Case HAPRACT Determination of this rule;
  - (2) Estimated control efficiency described as percent HAP removed;
  - (3) Expected emission rates in tons per year and pounds per hour;
  - (4) Expected emission reduction in tons per year and pounds per hour;
  - (5) Economic impact and cost effectiveness of implementing the rejected control technologies;
  - (6) Other environmental impact of the rejected control technology; and
  - (7) Energy impact of the rejected control technologies.
- 304.3 The Control Officer shall determine whether the applicant's HAPRACT selection complies with ARS §49 480.04 County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and this section of this rule based on the documentation provided in Section 304.2 Case By Case HAPRACT Determination of this rule:
  - a. If the Control Officer finds that the applicant's proposal complies with ARS §49 480.04 County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and this section of this rule, the Control Officer shall include the applicant's proposed HAPRACT selection in the permit or permit revision.
  - b. If the Control Officer finds that the applicant's proposal fails to comply with ARS §49 480.04 County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and this section of this rule, the Control Officer shall:
    - (1) Notify the applicant that the proposal fails to meet requirements;
    - (2) Specify the deficiencies in the proposal; and
    - (3) State that the applicant shall submit a new HAPRACT proposal according to the provisions regarding permit application processing procedures in Rule 210 Title V Permit Provisions or Rule 220 Non Title V Permit Provisions of these rules.
  - e. If the applicant does not submit a new proposal, the Control Officer shall deny the application for a permit or permit revision.
  - d. If the Control Officer finds that the new proposal fails to comply with ARS §49 480.04 County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and this section of this rule, the Control Officer shall deny the application for a permit or permit revision.

- 304.4 If the Control Officer finds that a reliable method of measuring HAP emissions is not available, the Control Officer shall require, in the permit, the applicant to comply with a design, equipment, work practice or operational standard, or combination of these, but shall not impose a numeric emissions limitation upon the applicant.
- 304.5 The Control Officer shall not impose a control technology that would require the application of measures that are incompatible with measures required under Rule 370 Federal Hazardous Air Pollutant Program of these rules or 40 CFR Part 63 National Emission Standards For Hazardous Air Pollutants For Source Categories. An applicable control technology for a source or source category that is promulgated by the Administrator shall supersede control technology imposed by the Control Officer for that source or source category.

#### 305 CASE BY CASE AZMACT DETERMINATION:

- 305.1 The applicant shall include in the application sufficient documentation to show that the proposed control technology meets the requirements of ARS §49–480.04 County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and of this section of this rule.
- 305.2 An applicant subject to Section 303.3 Modifications; Permits; Permit Revisions of this rule shall propose AZMACT for the new source or modification, to be included in the applicant's permit or permit revision. The applicant shall document each of the following steps:
  - a. The applicant shall identify all available control options, taking into consideration the measures cited in Section 205 Definition Of Arizona Maximum Achievable Control Technology (AZMACT) of this rule. The analysis shall include a survey of emission sources to determine the most stringent emission limitation currently achieved in practice in the United States. The survey may include technologies employed outside of the United States and may include controls applied through technology transfer to similar source categories and gas streams.
  - b. The applicant shall eliminate options that are technically infeasible because of source specific factors. The applicant shall clearly document the demonstration of technical infeasibility and shall base the demonstration upon physical, chemical, and engineering barriers that would preclude the successful use of each control option that the applicant has eliminated.
  - c. The applicant shall list the remaining control technologies in order of overall removal efficiency for the HAP under review, with the most effective at the top of the list. The list shall include the following information, for the control technology proposed and for any control technology that is ranked higher than the proposed technology:
    - (1) Estimated control efficiency described by percent of HAP removed;
    - (2) Expected emission rate in tons per year and pounds per hour;
    - (3) Expected emission reduction in tons per year and pounds per hour;

- (4) Economic impact and cost effectiveness;
- (5) Other environmental impact; and
- (6) Energy impact.
- d. The applicant shall evaluate the most effective controls, listed according to Section 305.2(c) Case
   By Case AZMACT Determination of this rule and document the results as follows:
  - (1) For new major sources, the applicant shall consider the factors described in Section 305.2(c)-Case By Case AZMACT Determination of this rule to arrive at the final control technology proposed as AZMACT.
    - (a) The applicant shall discuss the beneficial and adverse economic, environmental, and energy impacts and quantify them where possible, focusing on the direct impacts of each control technology.
    - (b) If the applicant proposes the top alternative in the list as AZMACT, the applicant shall consider whether other environmental impacts mandate the selection of an alternative control technology. If the applicant does not propose the top alternative as AZMACT, the applicant shall evaluate the next most stringent technology in the list. The applicant shall continue the evaluation process until the applicant arrives at a technology that the applicant does not eliminate because of source specific, economic, environmental, or energy impacts.
  - (2) For a modification, the applicant shall evaluate the control technologies according to Section 305.2(d)(1) Case By Case AZMACT Determination of this rule. AZMACT for a modification may be less stringent than AZMACT for a new source in the same source category but shall not be less stringent than:
    - (a) In cases where the applicant has identified 30 or more sources, the average emission limitation achieved by the best performing 12% of the existing similar sources, which the applicant shall include in the permit application; or
    - (b) In cases where the applicant has identified fewer than 30 similar sources, the average emission limitation achieved by the best performing five sources, which the applicant shall include in the permit application.
- e. The applicant shall propose as AZMACT for the HAP under review:
  - (1) The most effective control technology or methodology not eliminated in the evaluation described in Section 305.2(d) Case By Case AZMACT Determination of this rule; or
  - (2) An innovative technology that reduces emissions to the extent achieved by the control technology that the applicant otherwise would have proposed under Section 305.2(e)(1)

Case By Case AZMACT Determination of this rule and that meets all the requirements of ARS §49 480.04 County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and this section of this rule.

- 305.3 The Control Officer shall not approve a control technology or methodology less stringent than any applicable federal new source performance standard (NSPS) at 40 CFR Part 60 or national emission standard for hazardous air pollutants (NESHAP) at 40 CFR Part 61.
- 305.4 The Control Officer shall determine whether the applicant's AZMACT proposal complies with ARS §49-480.04 County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and this section of this rule.
  - a. If the Control Officer determines that the applicant's proposal complies with ARS §49 480.04-County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and this section of this rule, the Control Officer shall include the applicant's proposed AZMACT selection in the permit or permit revision.
  - b. If the Control Officer determines that the applicant's proposal does not comply with ARS §49-480.04 County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and this section of this rule, the Control Officer shall:
    - (1) Notify the applicant that the proposal does not meet the requirements;
    - (2) Specify the deficiencies; and
    - (3) State that the applicant shall submit a new AZMACT proposal according to permit application processing procedures in Rule 210 Title V Permit Provisions or Rule 220 Non-Title V Permit Provisions of these rules.
  - e. If the applicant does not submit a new proposal, the Control Officer may deny the application for permit or permit revision.
  - d. If the Control Officer determines that the new proposal fails to comply with ARS §49 480.04 County Air Pollution Control County Program For Control Of Hazardous Air Pollutants and this section of this rule, the Control Officer shall deny the application for a permit or permit revision.
- 305.5 If a reliable method of measuring HAP emissions is not available, the Control Officer shall require the applicant to comply with a design, equipment, work practice, or operational standard, or combination of these, to be included in the applicant's permit, but shall not impose a numeric emissions limitation.
- 305.6 The Control Officer shall not impose a control technology that would require the application of measures that are incompatible with measures required under Rule 370 Federal Hazardous Air Pollutant Program of these rules or 40 CFR Part 63 National Emission Standards For Hazardous Air Pollutants For Source Categories. An applicable control technology for a source or source category

that is promulgated by the Administrator shall supersede control technology imposed by the Control Officer for that source or source category.

#### 306 RISK MANAGEMENT ANALYSES:

- 306.1 Applicability:
  - a. An applicant seeking to demonstrate that HAPRACT or AZMACT is not necessary to prevent adverse effects to human health or the environment by conducting a risk management analysis (RMA) shall first apply for a permit or a significant permit revision that complies with Rule 210-Title V Permit Provisions or Rule 220 Non Title V Permit Provisions of these rules.
  - b. An applicant seeking to demonstrate that HAPRACT or AZMACT is not necessary to prevent adverse effects to human health or the environment shall conduct a risk management analysis (RMA) according to this section of this rule.
  - c. The risk management analysis (RMA) for a new source shall apply to:
    - The source's annual total potential to emit Maricopa County HAPs for evaluation of chronic exposure; or
    - (2) The source's hourly total potential to emit Maricopa County HAPs for evaluation of acute exposure.
  - d. The risk management analysis (RMA) for a modified source shall apply to:
    - (1) The source's annual total potential to emit Maricopa County HAPs, after the modification, for evaluation of chronic exposure; or
    - (2) The source's hourly total potential to emit Maricopa County HAPs, after the modification, for evaluation of acute exposure.
  - e. An applicant shall conduct a risk management analysis (RMA) for each Maricopa County HAP emitted by the source in greater than de minimis amounts.
- 306.2 The applicant may use any of the following methods for conducting a risk management analysis (RMA):
  - a. Tier 1 Equation:
    - (1) For emissions of a HAP included in a listed group of hazardous compounds, other than those HAPs identified in Table 3 Acute And Chronic Ambient Air Concentrations of this rule as selected compounds, the applicant shall determine a health based ambient air concentration, under Section 306.3(c) Risk Management Analyses Health Based Ambient Air Concentrations Of Maricopa County HAPs of this rule.

- (2) The applicant shall determine the potential maximum hourly exposure resulting from emissions of the HAP by applying the following equation: MHE = PPH \* 17.68, where:
  - (a) MHE = maximum hourly exposure in milligrams per cubic meter, and
  - (b) PPH = hourly potential to emit the HAP in pounds per hour.
- (3) The applicant shall determine the potential maximum annual exposure resulting from emissions of the HAP by applying the following equation: MAE = PPY \* 1/MOH \* 1.41, where:
  - (a) MAE = maximum annual exposure in milligrams per cubic meter,
  - (b) PPY = annual potential to emit the HAP in pounds per year, and
  - (c) MOH = maximum operating hours for the source, taking into account any enforceable operational limitations.
- (4) The Control Officer shall not require compliance with HAPRACT for the HAP under Section 304 Case By Case HAPRACT Determination of this rule or with AZMACT for the HAP under Section 305 Case By Case AZMACT Determination of this rule, if both of the following are true:
  - (a) The maximum hourly concentration determined under Section 306.2(a)(2) Risk Management Analyses Tier 1 Equation of this rule is less than the acute ambient air concentrations determined under Section 306.3(c) Risk Management Analyses Health Based Ambient Air Concentrations Of Maricopa County HAPs of this rule; and
  - (b) The maximum annual concentration determined under Section 306.2(a)(3) Risk Management Analyses Tier 1 Equation of this rule is less than the chronic ambient air concentrations determined under Section 306.3(c) Risk Management Analyses Health Based Ambient Air Concentrations Of Maricopa County HAPs of this rule.
- (5) If either the maximum hourly concentration determined under Section 306.2(a)(2) Risk Management Analyses Tier 1 Equation of this rule or the maximum annual concentration determined under Section 306.2(a)(3) Risk Management Analyses Tier 1 Equation is greater than or equal to the relevant ambient air concentration:
  - (a) The Control Officer shall require compliance with HAPRACT under Section 304 Case By Case HAPRACT Determination of this rule or with AZMACT under Section 305 Case By Case AZMACT Determination of this rule; or
  - (b) The applicant may use the Tier 2 SCREEN model method under Section 306.2(b) of this rule, the Tier 3 Modified SCREEN Model method under Section 306.2(c) of this rule, or the Tier 4 Modified SCREEN Model Or Refined Air Quality Model method under

Section 306.2(d) of this rule for conducting a risk management analysis (RMA) under Section 306 Risk Management Analyses of this rule.

- b. Tier 2 SCREEN Model:
  - (1) The applicant shall use the SCREEN model performed in a manner consistent with the Guideline specified in Rule 240 Permit Requirements For New Major Sources And Major Modifications To Existing Major Sources, Section 308.1(f)(1) Permit Requirements For Sources Located In Attainment And Unclassifiable Areas Air Quality Models of these rules. The applicant shall compare the maximum concentration that is predicted in the ambient air with the relevant ambient air concentration determined under Section 306.3 Risk Management Analyses Health Based Ambient Air Concentrations Of Maricopa County HAPs of this rule.
  - (2) If the predicted maximum concentration is less than the relevant ambient air concentration, the Control Officer shall not require compliance with HAPRACT under Section 304 Case-By Case HAPRACT Determination of this rule or AZMACT under Section 305 Case By-Case AZMACT Determination of this rule.
  - (3) If the predicted maximum concentration is greater than or equal to the relevant ambient air concentration:
    - (a) The Control Officer shall require compliance with HAPRACT under Section 304 Case By Case HAPRACT Determination of this rule or AZMACT under Section 305 Case By Case AZMACT Determination of this rule; or
    - (b) The applicant may use the Tier 3 Modified SCREEN Model method under Section 306.2(c) of this rule or the Tier 4 Modified SCREEN Model Or Refined Air Quality Model method under Section 306.2(d) of this rule for determining maximum public exposure to Maricopa County HAPs under Section 306.2(c) Risk Management Analyses Tier 3 Modified SCREEN Model of this rule.
- c. Tier 3 Modified SCREEN Model:
  - (1) The applicant shall use the SCREEN model performed in a manner consistent with the Guideline specified in Rule 240 Permit Requirements For New Major Sources And Major Modifications To Existing Major Sources, Section 308.1(f)(1) Permit Requirements For Sources Located In Attainment And Unclassifiable Areas Air Quality Models of these rules.
  - (2) For evaluation of acute exposure, the applicant shall assume exposure in the ambient air.
  - (3) For evaluation of chronic exposure:
    - (a) The applicant may use exposure assumptions consistent with institutional or engineering controls that are permanent and enforceable outside the permit.

- (b) The applicant shall notify the Control Officer of these controls. If the Control Officer does not approve of the proposed controls or if the controls are not permanent and enforceable outside of the permit, the applicant shall not use the method specified in Section 306.2(c)(3) Risk Management Analyses Tier 3 Modified SCREEN Model of this rule to determine maximum public exposure to the Maricopa County HAP.
- (4) If the predicted maximum concentration is less than the relevant ambient air concentration, the Control Officer shall not require compliance with HAPRACT under Section 304 Case-By Case HAPRACT Determination of this rule or AZMACT under Section 305 Case By-Case AZMACT Determination of this rule.
- (5) If the predicted maximum concentration is greater than or equal to the relevant ambient air concentration:
  - (a) The Control Officer shall require compliance with HAPRACT under Section 304 Case By Case HAPRACT Determination of this rule or AZMACT under Section 305 Case By Case AZMACT Determination of this rule; or
  - (b) The applicant may use the Tier 4 Modified SCREEN Model Or Refined Air Quality Model method under Section 306.2(d) of this rule for determining maximum public exposure to Maricopa County HAPs, under Section 306.2(d) of this rule.
- d. Tier 4 Modified SCREEN Model Or Refined Air Quality Model:
  - (1) The applicant shall employ either the SCREEN model or a refined air quality model performed in a manner consistent with the Guideline specified in Rule 240 Permit Requirements For New Major Sources And Major Modifications To Existing Major Sources, Section 308.1(f)(1) Permit Requirements For Sources Located In Attainment And Unclassifiable Areas Air Quality Models of these rules.
  - (2) For evaluation of acute exposure, the applicant shall assume exposure in the ambient air.
  - (3) For evaluation of chronic exposure:
    - (a) The applicant may use exposure assumptions consistent with institutional or engineering controls that are permanent and enforceable outside the permit.
    - (b) The applicant shall notify the Control Officer of these controls. If the Control Officer does not approve of the proposed controls or if the proposed controls are not permanent and enforceable outside of the permit, the applicant shall assume chronic exposure in the ambient air.
  - (4) The applicant may include in the Tier 4 risk management analysis (RMA) documentation of the following factors:

- (a) The estimated actual exposure to the HAP of persons living in the airshed of the source;
- (b) Available epidemiological or other health studies;
- (c) Risks presented by background concentrations of hazardous air pollutants;
- (d) Uncertainties in risk assessment methodology or other health assessment techniques;
- (e) Health or environmental consequences from efforts to reduce the risk; or
- (f) The technological and commercial availability of control methods beyond those otherwise required for the source and the cost of such methods.
- (5) The applicant shall submit a written protocol for conducting a risk management analysis (RMA), consistent with the requirements of Section 306.2(d) Risk Management Analyses-Tier 4 Modified SCREEN Model Or Refined Air Quality Model of this rule, to the Control Officer for the Control Officer's approval. If the Control Officer does not approve the written protocol, the applicant may:
  - (a) Submit a revised protocol to the Control Officer;
  - (b) Propose HAPRACT under Section 304 Case By Case HAPRACT Determination of this rule or AZMACT under Section 305 Case By Case AZMACT Determination of this rule; or
  - (c) Refuse to submit a revised protocol, in which case the Control Officer shall deny the application.
- (6) If the predicted maximum concentration is less than the relevant ambient air concentration or if warranted under the factors listed in Section 306.2(d)(4) Risk Management Analyses Tier 4 Modified SCREEN Model Or Refined Air Quality Model of this rule, the Control Officer shall not require compliance with HAPRACT under Section 304 Case By Case HAPRACT Determination of this rule or AZMACT under Section 305 Case By Case AZMACT Determination of this rule.
- (7) Except as provided in Section 306.2(d)(6) Risk Management Analyses Tier 4 Modified SCREEN Model Or Refined Air Quality Model of this rule, if the predicted maximum concentration is greater than or equal to the relevant ambient air concentration, the Control Officer shall require compliance with HAPRACT under Section 304 Case By Case HAPRACT Determination of this rule or AZMACT under Section 305 Case By Case AZMACT Determination of this rule.
- 306.3 Health Based Ambient Air Concentrations Of Maricopa County HAPs:

a. For Maricopa County HAPs for which the Control Officer has already determined an ambient air concentration, the applicant shall use the acute and chronic values listed in Table 3 Acute And Chronic Ambient Air Concentrations of this rule.

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Chemical	Acute Ambient Air	Chronic Ambient Air
	Concentrations	Concentrations
	( <del>mg/m<sup>3</sup>)</del>	(mg/m <sup>3</sup> )
1,1,1 Trichloroethane (Methyl Chloroform)	<del>2,075</del>	<del>2.30E+00</del>
1,1,2,2 Tetrachloroethane	<del>18</del>	<del>3.27E-05</del>
1,3 Butadiene	7,514	<del>6.32E-05</del>
1,4 Dichlorobenzene	<del>300</del>	<del>3.06E-04</del>
2,2,4 Trimethylpentane	900	NA
2,4 Dinitrotoluene	<del>5.0</del>	<del>2.13E 05</del>
2 Chloroacetophenone	NA	<del>3.13E 05</del>
Acetaldehyde	<del>306</del>	8.62E-04
Acetophenone	25	<del>3.65E 01</del>
Acrolein	0.23	<del>2.09E-05</del>
Acrylonitrile	<del>38</del>	<del>2.79E-05</del>
Antimony Compounds (Selected Compound: Antimony)	13	<del>1.46E 03</del>
Arsenic Compounds (Selected Compound: Arsenic)	<u>2.5</u>	4.41E-07
Benzene	<del>1,276</del>	<del>2.43E 04</del>
Benzyl Chloride	<del>26</del>	<del>3.96E-05</del>
Beryllium Compounds (Selected Compound: Beryllium)	0.013	<del>7.90E-07</del>
Biphenyl	<del>38</del>	<del>1.83E-01</del>
bis (2-Ethylhexy) Phthalate	<del>13</del>	4.80E-04
Bromoform	<del>7.5</del>	<del>1.72E 03</del>
Cadmium Compounds (Selected Compound: Cadmium)	<del>0.25</del>	<del>1.05E-06</del>
Carbon Disulfide	<del>311</del>	<del>7.30E-01</del>

Carbon Tetrachloride	201	<del>1.26E-04</del>
Carbonyl Sulfide	<del>30</del>	NA
Chlorobenzene	1,000	<del>1.04E+00</del>
Chloroform	195	<del>3.58E-04</del>
Chromium Compounds (Selected Compound: Hexavalent	0.10	<del>1.58E 07</del>
Chromium)		
Cobalt Compounds (Selected Compound: Cobalt)	10	<del>6.86E-07</del>
Cumene	<del>935</del>	4.17E 01
Cyanide Compounds (Selected Compound: Hydrogen Cyanide)	<del>3.9</del>	<del>3.13E-03</del>
Dibenzofurans	25	<del>7.30E-03</del>
Dichloromethane (Methylene Chloride)	<del>347</del>	4 <del>.03E-03</del>
Dimethyl Formamide	<del>16</del> 4	<del>3.13E-02</del>
Dimethyl Sulfate	0.31	NA
Ethyl Benzene	250	<del>1.04E+00</del>
Ethyl Chloride (Chloroethane)	<del>1,250</del>	<del>1.04E+01</del>
Etylene Dibromide (Dibromoethane)	100	<del>3.16E-06</del>
Ethylene Dichloride (1,2 Dichloroethane)	405	<del>7.29E-05</del>
Ethylene Glycol	<del>50</del>	4 <del>.17E 01</del>
Ethylidene Dichloride (1,1 Dichloroethane)	<del>6,250</del>	<del>5.21E 01</del>
Formaldehyde	17	<del>1.46E-04</del>
Glycol Ethers (Selected Compound: Diethylene Glycol,	250	<del>3.14E 03</del>
Monoethyl Ether)		
Hexachlorobenzene	0.50	4.12E-06
Hexane	<del>11,649</del>	<del>2.21E+00</del>
Hydrochloric Acid	<del>16</del>	<del>2.09E 02</del>
Hydrogen Fluoride (Hydrofluoric Acid)	<del>9.8</del>	<del>1.46E 02</del>
Isophorone	13	<del>2.09E+00</del>

Manganese Compounds (Selected Compound: Manganese)	2.5	<del>5.21E-05</del>
Mercury Compounds (Selected Compound: Elemental Mercury)	1.0	<del>3.13E 04</del>
Methanol	<del>943</del>	4 <del>.17E+00</del>
Methyl Bromide	<del>261</del>	<del>5.21E-03</del>
Methyl Chloride	<del>1,180</del>	<del>9.39E-02</del>
Methyl Hydrazine	0.43	<del>3.96E-07</del>
Methyl Isobutyl Ketone (Hexone)	500	<del>3.13E+00</del>
Methyl Methacrylate	311	<del>7.30E-01</del>
Methyl Tert Butyl Ether	<del>1,444</del>	<del>7.40E-03</del>
N, N-Dimethylaniline	25	<del>7.30E-03</del>
Naphthalene	75	<del>5.58E-05</del>
Nickel Compounds (Selected Compound: Nickel Refinery Dust)	<del>5.0</del>	<del>7.90E-06</del>
Phenol	<del>58</del>	<del>2.09E-01</del>
Polychlorinated Biphenyls (Selected Compound: Aroclor 1254)	2.5	<del>1.90E-05</del>
Polycyclic Organic Matter (Selected Compound:	<del>5.0</del>	<del>2.02E-06</del>
Benzo(a)pyrene)		
Propionaldehyde	403	<del>8.62E-04</del>
Propylene Dichloride	<del>250</del>	4.17E-03
Selenium Compounds (Selected Compound: Selenium)	0.50	<del>1.83E 02</del>
Styrene	<del>554</del>	<del>1.04E+00</del>
Tetrachloroethylene (Perchloroethylene)	814	<del>3.20E-04</del>
Toluene	<del>1,923</del>	<del>5.21E+00</del>
Trichlorethylene	<del>1,450</del>	<del>1.68E-05</del>
Vinyl Acetate	387	<del>2.09E-01</del>
Vinyl Chloride	<del>2,099</del>	<del>2.15E 04</del>
Vinylidene Chloride (1,2-Dichloroethylene)	<del>38</del>	<del>2.09E-01</del>
Xylene (Mixed Isomers)	<del>1,736</del>	<del>1.04E 01</del>

- b. For Maricopa County HAPs for which an ambient air concentration has not already been determined, the applicant shall determine the acute and chronic ambient air concentrations according to the process in Appendix H Procedures For Determining Ambient Air Concentrations For Hazardous Air Pollutants of these rules.
- e. For specific compounds included in Maricopa County HAPs listed as a group (e.g., arsenic compounds), the applicant may use an ambient air concentration developed according to the process in Appendix H Procedures For Determining Ambient Air Concentrations For Hazardous Air Pollutants of these rules.
- 306.4 As part of the risk management analysis (RMA), an applicant may voluntarily propose emissions limitations under Rule 220 Non Title V Permit Provisions, Section 304 Permits Containing Voluntarily Accepted Emissions Limitations, Controls, Or Other Requirements (Synthetic Minor) of these rules, in order to avoid being subject to HAPRACT under Section 304 Case By Case HAPRACT Determination of this rule or to avoid being subject to AZMACT under Section 305 Case-By Case AZMACT Determination of this rule.
- 306.5 Documentation Of Risk Management Analysis (RMA): The applicant shall document each risk management analysis (RMA) performed for each Maricopa County HAP and shall include the following information:
  - a. The potential maximum public exposure of the Maricopa County HAP;
  - b. The method used to determine the potential maximum public exposure:
    - (1) For Tier 1 Equation, the calculation demonstrating that the emissions of the Maricopa County HAP are less than the health based ambient air concentration, determined under Section 306.3(c) Risk Management Analyses Health Based Ambient Air Concentrations Of Maricopa County HAPs of this rule.
    - (2) For Tier 2 SCREEN Model, the input files to and the results of the SCREEN Modeling.
    - (3) For Tier 3 Modified SCREEN Model:
      - (a) The input files to and the results of the SCREEN Modeling; and
      - (b) The permanent and enforceable institutional or engineering controls approved by the Control Officer under Section 306.2(c)(3) Risk Management Analyses Tier 3 Modified SCREEN Model of this rule.
    - (4) For Tier 4 Modified SCREEN Model Or Refined Air Quality Model:
      - (a) The model the applicant used;
      - (b) The input files to and the results of the modeling;

- (c) The modeling protocol approved by the Control Officer under Section 306.2(d)(3) Risk Management Analyses Tier 4 Modified SCREEN Model Or Refined Air Quality Model of this rule; and
- (d) The permanent and enforceable institutional or engineering controls approved by the Control Officer under Section 306.2(d)(5) Risk Management Analyses Tier 4 Modified SCREEN Model Or Refined Air Quality Model of this rule;
- e. The health based ambient air concentrations determined under Section 306.3 Risk Management Analyses Health Based Ambient Air Concentrations Of Maricopa County HAPs of this rule; and
- Any voluntary emissions limitations that the applicant proposes under Section 306.4 Risk Management Analyses of this rule.
- 306.6 An applicant may conduct a risk management analysis (RMA) for any alternative operating scenario, requested in the application, consistent with the requirements of Section 306.6 Risk Management Analyses of this rule. The alternative operating scenario may allow a range of operating conditions if the Control Officer concludes that the risk management analysis (RMA) demonstrates no adverse effects to human health or adverse environmental effects from operations within that range. Modifications to a source consistent with the alternative operating scenario are not subject to this rule.

#### SECTION 400 ADMINISTRATIVE REQUIREMENTS

401 EFFECTIVE DATE: The provisions of this rule shall be effective June 6, 2007 and shall not apply to permits or significant permit revisions for which the Control Officer receives the first application component before the effective date of this rule.

#### 402 PERIODIC REVIEW:

- 402.1 Within one year after the Administrator adds or deletes a pollutant to the federal list of hazardous air pollutants, under Section 112(b)(2) or Section 112(b)(3) of the Clean Air Act, the Control Officer shall adopt those revisions for the Maricopa County list of HAPs in Section 301 Maricopa County List Of Hazardous Air Pollutants of this rule, unless the Control Officer finds that there is no scientific evidence to support the revision.
- 402.2 The Control Officer shall review the Maricopa County list of HAPs and the ambient air concentrations once every three years.
- 402.3 Based upon the review, the Control Officer may revise:
  - a. The Maricopa County list of HAPs. The Control Officer shall add any HAP to or delete any HAP from the Maricopa County list of HAPs in Section 301 Maricopa County List Of Hazardous Air Pollutants of this rule according to Section 112(b)(1) of the Act (42 U.S.C. 7412(b)(1)).
  - b. The acute and chronic health based ambient air concentrations for Maricopa County HAPs; and

- e. The acute and chronic de minimis levels for Maricopa County HAPs.
- d. The list of included minor source categories in Section 102 Applicability of this rule.

SECTION 500 MONITORING AND RECORDS (NOT APPLICABLE)

Adopted 06/06/07

#### APPENDIX H

#### PROCEDURES FOR DETERMINING AMBIENT AIR CONCENTRATIONS

#### FOR HAZARDOUS AIR POLLUTANTS

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SECTION 2 CHRONIC AMBIENT AIR CONCENTRATIONS

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#### MARICOPA COUNTY

#### AIR POLLUTION CONTROL REGULATIONS

#### APPENDIX H

#### PROCEDURES FOR DETERMINING AMBIENT AIR CONCENTRATIONS

#### FOR HAZARDOUS AIR POLLUTANTS

- 1. APPLICABILITY: The procedure described in Appendix H of these rules shall be used to develop chronic ambient air concentrations (CAACs) and acute ambient air concentrations (AAACs) for hazardous air pollutants (HAPs) for the following:
  - a. Any HAP not included in Rule 372 Maricopa County Hazardous Air Pollutants (HAPS) Program Table 3-Acute And Chronic Ambient Air Concentrations of these rules; and
  - b. Any compound included in a group of HAPs listed in Rule 372 Maricopa County Hazardous Air Pollutants (HAPS) Program Table 3 Acute And Chronic Ambient Air Concentrations of these rules, other than those identified in the group listing as the "selected" compound.

#### 2. CHRONIC AMBIENT AIR CONCENTRATIONS:

- a. The applicant shall review the following data sources and, except as otherwise provided, shall give them the priority indicated in the development of chronic ambient air concentrations (CAACs):
  - (1) Tier 1 Data Sources: Reference Concentrations (RfCs) and air Unit Risk Factors (URFs) as presented in the Integrated Risk Information System (IRIS) of the United States Environmental Protection Agency (EPA).

- (2) Tier 2 Data Sources:
  - (a) Preliminary Remediation Goals (PRGs) developed by Region 9 of the EPA.
  - (b) Risk Based Concentrations (RBCs) developed by Region 3 of the EPA.
- (3) Tier 3 Data Sources:
  - (a) Minimal Risk Levels (MRLs) developed by the Agency For Toxic Substances And Disease Registry (ATSDR).
  - (b) Reference Exposure Levels (RELs) and Unit Risk Factors (CalURFs) developed by the California Environmental Protection Agency.
- b. Evaluation Of Tier 1 Values:
  - (1) Calculation Of Concentrations:
    - (a) Reference Concentrations (RfCs) shall be multiplied by 1.04 to reflect an assumed exposure of 350 rather than 365 days per year.
    - (b) Unit Risk Factors (URFs) shall be transformed into concentrations in milligrams per cubic meter (mg/m<sup>3</sup>) by applying the following equation:

TR x ATc/(EF x IFA adj x [URF x BW/IR])

Where: TR = 1E.06

ATc = 25,550 days

EF = 350 days/year

 $IFA adj = 11m^3 year/kg day$ 

BW = 70 kg

 $IR = 20 \text{ m}^3/\text{day}$ 

- (2) Comparison To Tier 2 And Tier 3 Concentrations:
  - (a) The concentration developed in accordance with Section 2(b)(1) of this appendix shall be compared to the Tier 2 and Tier 3 concentrations for the compound, if any.
  - (b) Unit Risk Factor (URF) based concentrations shall be compared only to concentrations based on Unit Risk Factors (CalURFs) developed by the California Environmental Protection Agency.
  - (c) Reference Concentrations (RfCs) based concentrations shall be compared to concentrations based on Preliminary Remediation Goals (PRGs), Risk Based Concentrations (RBCs), Minimal Risk Levels (MRLs), and Reference Exposure Levels (RELs).

- (d) If there is reasonable agreement between Tier 1 concentration and the other concentrations for the compound, the Tier 1 concentration shall be selected as the chronic ambient air concentration (CAAC).
- (e) If the Tier 1 concentration is not in reasonable agreement with the other concentrations and one of the other concentrations is based on more recent or relevant studies that concentration shall be selected as the chronic ambient air concentration (CAAC). Otherwise, the Tier 1 concentration shall be selected.
- (3) If both a Reference Concentration (RfC) based and a Unit Risk Factor (URF) based Tier 1 concentration is selected under Section 2(b)(2) of this appendix, the more stringent of the two shall be used as the chronic ambient air concentration (CAAC).
- (4) If a Tier 1 value is selected in accordance with this section of this appendix, no further evaluation of Tier 2 or Tier 3 concentrations is required.
- c. Evaluation Of Tier 2 Concentrations:
  - (1) Selection Of Tier 2 Values For Further Evaluation:
    - (a) If there is only a Preliminary Remediation Goal (PRG) or Risk Based Concentrations (RBCs) for the compound, it shall be selected for further evaluation in accordance with Section 2(c)(2) of this appendix.
    - (b) If there is both a Preliminary Remediation Goal (PRG) and a Risk Based Concentration (RBC) for the compound, the concentrations shall be compared. If the concentrations are similar, the Preliminary Remediation Goal (PRG) shall be selected for further evaluation. If the concentrations are not similar and the Risk Based Concentration (RBC) is based on more relevant or more recent studies, it shall be selected for further evaluation. Otherwise, the Preliminary Remediation Goal (PRG) shall be selected.
  - (2) Comparison To Tier 3 Concentrations:
    - (a) The concentration developed in accordance with Section 2(c)(1) of this appendix shall be compared to the Tier 3 concentrations for the compound, if any. For purposes of this comparison, only Minimal Risk Level (MRL) based or Reference Exposure Level (REL) based concentrations shall be considered.
    - (b) If there is reasonable agreement between the Tier 2 concentrations and the Tier 3 concentrations for the compound, the Tier 2 concentration shall be selected as the chronic ambient air concentration (CAAC).
    - (c) If the Tier 2 concentration is not in reasonable agreement with the Tier 3 concentrations and one of the Tier 3 concentrations is based on more recent or relevant studies, that concentration shall be

selected as the chronic ambient air concentration (CAAC). Otherwise, the Tier 2 concentration shall be selected.

- (d) If the Tier 2 concentration is selected in accordance with Section 2(c) of this appendix, no further evaluation of Tier 3 concentrations is required.
- d. Evaluation Of Tier 3 Values:
  - (1) Calculation Of Concentrations:
    - (a) Minimal Risk Levels (MRLs) and Reference Exposure Levels (RELs) shall be multiplied by 1.04 to reflect an assumed exposure of 350 rather than 365 days per year.
    - (b) Unit Risk Factors (CalURFs) developed by the California Environmental Protection Agency shall be transformed into concentrations in milligrams per cubic meter (mg/m<sup>3</sup>) by applying the following equation:

TR x ATc/(EF x IFA adj x [CalURF x BW/IR]) Where: TR = 1E 06 ATc = 25,550 days EF = 350 days/year IFA adj = 11m<sup>3</sup> year/kg day BW = 70 kg IR = 20 m<sup>3</sup>/day

- (2) Selection Of Concentration:
  - (a) If both a Minimal Risk Level (MRL) and a Reference Exposure Level (REL) exist for the compound, the most appropriate shall be selected after considering the relevance and timing of the studies on which the levels are based.
  - (b) If there is both a Unit Risk Factors (CalURFs) developed by the California Environmental Protection Agency based concentration and a concentration based on a Minimal Risk Level (MRL) or a Reference Exposure Level (REL) for the compound, the more stringent of the two shall be selected.
- e. No Available Data: If there is no data available in any of the sources identified in Section 2(a) of this appendix for the compound, the applicant must perform a Tier 4 risk management analysis (RMA) under Rule 372-Maricopa County Hazardous Air Pollutants (HAPS) Program Section 306 Risk Management Analysis (RMA) of these rules or forego the risk management analysis (RMA) option.
- 3. ACUTE AMBIENT AIR CONCENTRATIONS:
  - a. Selection Of Concentration:

- (1) The first concentration identified by evaluating the following data sources in the order listed shall be adjusted, where required, and used as the acute ambient air concentration (AAAC) for the compound:
  - (a) The level 2 four hour average Acute Exposure Guideline Level developed by the EPA Office Of Prevention Pesticides And Toxic Substances.
  - (b) The level 2 Emergency Response Planning Guideline (ERPG) developed by the American Industrial Hygiene Association. The acute ambient air concentration (AAAC) shall be the Emergency Response Planning Guideline (ERPG) divided by two.
  - (c) The level 2 Temporary Emergency Exposure Limit (TEEL) developed by the United States Department Of Energy's Emergency Management Advisory Committee's Subcommittee On Consequence Assessment And Protective Action. The acute ambient air concentration (AAAC) shall be the Temporary Emergency Exposure Limit (TEEL) divided by two.
- (2) No Available Data: If there is no data available in any of the sources identified in Section 3(a) of this appendix, the applicant must perform a Tier 4 risk management analysis (RMA) under Rule 372-Maricopa County Hazardous Air Pollutants (HAPS) Program Section 306 Risk Management Analysis (RMA) of these rules or forego the risk management analysis (RMA) option.