



PINAL COUNTY

Pinal County Air Quality Control District
**Chapter 7, Article 2 PINAL COUNTY HAZARDOUS
AIR POLLUTANTS (HAPs) PROGRAM and
Appendix L. PROCEDURES FOR DETERMINING
AMBIENT AIR CONCENTRATIONS FOR
HAZARDOUS AIR POLLUTANTS**

Notice of Final Rulemaking

Pursuant to A.R.S. §49-471.07

Pinal County Air Quality Control
July 2, 2020

Published online at

<http://www.pinalcountyz.gov/AirQuality/Pages/Rulemaking.aspx>

On July 2, 2020

1. Preamble

- A. The Pinal County Air Quality Control District (PCAQCD), an operating division of Pinal County, proposed that the Board of Supervisors (BOS) adopt or amend certain rules under authority of A.R.S. §§49-479 and 49-480, which respectively authorize the board to adopt rules to control air pollution.
- B. All of the corresponding changes are discussed in subsection E. of this preamble, and include the following sections:

Section Affected	Rulemaking Action
§7-2-010. General	Rescind
§7-2-020. Definitions.....	Rescind
§7-2-030. Standards	Rescind
§7-2-040. Administrative Requirements.....	Rescind
§7-2-050. Monitoring and Records	Rescind
Appendix L. Procedures for Determining Ambient Air Concentrations for Hazardous Air Pollutants.....	Rescind

- C. Those wishing further information regarding any aspect of this rulemaking may contact Scott DiBiase, Pinal County Air Quality, 31 North Pinal St., Building F, Florence, Arizona, 85132, 520-866-6929, scott.dibiase@pinal.gov.
- D. The rule making process consisted of an initial administrative rule development process which included a combined notice of proposed rulemaking and oral proceeding (posted online March 27, 2020), a 30 day public comment period, a stakeholder meeting held on May 14 2020 and an oral proceeding before the Control Officer conducted on May 21, 2020. Written comments were due prior to the close of the comment period, which shall be the close-of-business on day of the oral proceeding (no comments were received). The final step in the rule adoption process was a public hearing before the Board of Supervisors on July 1, 2020.
- E. The adopted rule rescission include the following:

The Pinal County Board of Supervisors rescinded Chapter 7, Article 2 (Pinal County Hazardous Air Pollutants (HAPs) Program) and Appendix L Procedures for Determining Ambient Air Concentrations for Hazardous Air Pollutants. The rules applied to new sources of HAPs or modified sources of HAPs, when such sources increased the emissions of a HAP by more than a de minimis amount. The rules regulated HAPs that were on the federal list of HAPs - Section 112(b) of the Clean Air Act and:

- o Listed de minimis levels for Pinal County HAPs in Chapter 7, Article 2, Table 2-Pinal County HAPs De Minimis Levels
- o Listed 24 minor source categories subject to the program in Chapter 7, Article 2, Table 1-Pinal County HAPs Minor Source Categories

The rules were similar to and no more stringent than the Arizona Department of Environmental Quality’s (ADEQ’s) Arizona program for the regulation of HAPs (prior to the expiration of ADEQ HAPs rules – see ADEQ rulemaking background section below). 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 rulemaking background

Pursuant to A.R.S. 49-426.06 the Arizona Department of Environmental Quality (ADEQ) adopted the state hazardous air pollutants program in June 2006. However shortly after rule adoption, the new ADEQ HAPs rules were legally challenged (Oak Canyon Manufacturing, et al.). 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 were ruled unenforceable. The superior court held that ADEQ did not have authority to adopt de minimis amounts of federal HAPs.

In response to the court ruling, ADEQ through the Governor's Regulatory Review Council under A.R.S. §41-1056(J) let the State Hazardous Air Pollutants rules expire (AAR 23:2, page 135, January 13, 2017).

The State's expiration of ADEQ HAPs rules, left Pinal County with more stringent rules than the state, in contrast to the A.R.S. 49-112 requirements. Pinal County doesn't have a peculiar local condition that necessitates a local HAPs rule. Nor does Pinal County have 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.

Therefore Pinal County Board of Supervisors rescinded the HAPs rules in order to comply with A.R.S. 49-112.

A point of distinction with other Pinal County Air Quality rules, the federal HAPs standards at 40 Code of Federal Regulations Part 61 and Part 63, which are incorporated by reference in Pinal County Air Pollution Control Regulations Chapter 7, Article 1 (§7-1-030) (Federal Hazardous Air Pollutant Program), are separate and independent from Pinal County's HAPs program (Chapter 7, Article 2 and Appendix L) and remain fully enforceable. Sources of federal HAPs in Pinal County remain obligated to comply with any applicable requirements of the federal program.

F. A reference to any study relevant to the rule that the agency reviewed and either relied on in its evaluation of or justification for the rule or did not rely on in its evaluation of or justification for the rule, where the public may obtain or review each study (See contact information in subsection C above), all data underlying each study, and any analysis of each study and other supporting material:

Not applicable.

G. Economic, small business and consumer impact statement

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

This rulemaking rescinded Chapter 7, Article 2 and Appendix L. 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 Pinal County Code of Regulations Chapter 7 separate and independent from Pinal County's HAPs program (Chapter 7, Article 2) and remain fully enforceable. Sources of federal HAPs in Pinal County remain obligated to comply with any applicable requirements of the federal program.

Because this rulemaking does not impose any new compliance burdens on permitted regulated entities or introduce additional regulatory requirements, Pinal County Air Quality 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.

- H. In accordance with A.R.S. §49-471.07.F the changes took effect on the date that the Pinal County Board of Supervisors adopted the final rule, July 1, 2020.
- I. Compliance with the Fee-limitations of A.R.S. §49-112 (A) or (B).

Based on information and belief, the Director of the Pinal County Air Quality Control District affirms the following:

Initially, the total of the fees and other charges currently assessed in connection with the administration of the County's air quality program do not now equal the cost of program administration. To the extent that both the County and ADEQ impose parallel fees, the County's fees are capped by rule at ADEQ's rates, which implicitly affirms that the County's fees are reasonable. To the extent the County's program affects certain sources that ADEQ either does not regulate or does not charge, these proposed changes do not impose any additional fees on those sources at this time.

- J. Persons may obtain a full copy of the adopted rule or existing rules at:

Pinal County Air Quality Control District
31 North Pinal St., Building F.
P.O. Box 987
Florence, AZ. 85132

<http://www.pinalcountyyaz.gov/AirQuality/Pages/home.aspx>

- K. A list of all previous notices appearing on the Pinal County Air Quality website addressing the proposed rules:

Pinal County Air Quality Control District, Chapter 7, Article 2 Pinal County Hazardous Air Pollutants (HAPs) Program and Appendix L. Procedures for Determining Ambient Air Concentrations for Hazardous Air Pollutants, Combine Notice of Proposed Rulemaking and Notice of Oral Proceeding. Posted online (<https://www.pinalcountyyaz.gov/AirQuality/Pages/Rulemaking.aspx>) March 27, 2020.

2. The full text of the adopted changes follows:

**ARTICLE 2. ~~PINAL COUNTY HAZARDOUS AIR POLLUTANTS~~
(HAPs) PROGRAM RESERVED**

7-2-010. General

- A. ~~The purpose of this article is to establish procedures for a Pinal County program for the regulation of federally listed hazardous air pollutants (HAPs).~~
- B. ~~The provisions of this article apply to:~~
1. ~~Minor sources of Pinal County hazardous air pollutants (HAPs) that are in one of the source categories listed in Table 1— Pinal County HAPs Minor Source Categories of this rule; and~~
 2. ~~Major sources of Pinal County hazardous air pollutants (HAPs).~~

~~Table 1— Pinal County HAPs Minor Source Categories~~

Primary SIC Code	Source Category
2434	Wood Kitchen Cabinets
2451	Mobile Homes
2621	Paper Mills
2679	Converted Paper Products — Not Elsewhere Classified
2851	Paints and Allied Products
2911	Petroleum Refining
3086	Plastics Foam Products
3088	Plastics Plumbing Fixtures
3089	Plastics Products — Not Elsewhere Classified
3241	Cement — Hydraulic
3281	Cut Stone and Stone Products
3296	Mineral Wool
3312	Blast Furnaces and Steel Mills
3331	Primary Copper
3411	Metal Cans
3444	Sheet Metal Work
3451	Screw Machine Products
3479	Metal Coating and Allied Services
3585	Refrigeration and Heating Equipment
3672	Printed Circuit Boards
3999	Manufacturing Industries — Not Elsewhere Classified
4922	Natural Gas Transmission
5169	Chemical and Allied Products — Not Elsewhere Classified
5171	Petroleum Bulk Stations and Terminals

- C. ~~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.~~
- D. ~~The provisions of this article shall not apply to:~~
1. ~~An affected source for which a standard under 40 CFR Part 61 or 40 CFR Part 63 imposes an emissions limitation.~~

2. ~~An affected source at a minor source of Pinal County HAPs, if the minor source is in a source category for which a standard under 40 CFR Part 63 has been adopted and has agreed to comply with the emissions limitation under §3-1-084 or other requirements (synthetic minor) of these rules.~~
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.~~
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.~~

7-2-020. Definitions

For the purpose of this article, the following definitions shall apply:

1. ~~ACUTE ADVERSE EFFECTS TO HUMAN HEALTH — Means those effects described in A.R.S. §49-401.01(2) that are of short duration or rapid onset.~~
2. ~~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.~~
3. ~~AFFECTED SOURCE — Notwithstanding the definition of “affected source” as defined in §3-1-030, “affected source” in this Article, has the meaning of “affected source” contained in 40 CFR 63.2, 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(e) 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 this paragraph 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 this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, 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.)~~
4. ~~AMBIENT AIR CONCENTRATION (AAC) — That concentration of a hazardous air pollutant in the ambient air, listed in §7-2-030.6 Risk Management Analysis (RMA) of this rule or determined in accordance with §7-2-030.6.3.b Risk Management Analysis (RMA) — Health Based Ambient Air Concentrations of Pinal County HAPs of this rule or §7-2-030.6.3.c Risk Management Analysis (RMA) — Health Based Ambient Air Concentrations of Pinal County HAPS of this rule, above which the~~

~~general population, including susceptible populations, could experience adverse health effects to human health.~~

- ~~5. 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 §7-2-030.5 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:
 - ~~1. Reduce the volume of, or eliminate emissions of, the pollutants through process changes, substitution of materials, or other modifications;~~
 - ~~2. Enclose systems or processes to eliminate emissions;~~
 - ~~3. Collect, capture, or treat the pollutants when released from a process, stack, storage, or fugitive emissions point;~~
 - ~~4. Are design, equipment, work practice, or operational standards, including requirements for operator training or certification; or~~
 - ~~5. Are a combination of 7-2-020.5(1) thru 7-2-020.5(4) of this rule.~~~~
- ~~6. CHEMICAL ABSTRACT SERVICE (CAS) NUMBER — A unique, identifying number assigned by the Chemical Abstract Service to each distinct chemical substance.~~
- ~~7. CHRONIC ADVERSE EFFECTS TO HUMAN HEALTH — Those effects described in A.R.S. §49-401.01(2) that are of a persistent, recurring, or long-term nature or that are delayed in onset.~~
- ~~8. 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.~~
- ~~9. FEDERALLY LISTED HAZARDOUS AIR POLLUTANT — Any pollutant adopted under §7-2-030.1 Pinal County List of Hazardous Air Pollutants of this rule.~~
- ~~10. HAZARDOUS AIR POLLUTANT — Any federally listed hazardous air pollutant.~~
- ~~11. MAJOR SOURCE OF PINAL COUNTY HAZARDOUS AIR POLLUTANTS (HAPs) means —
 - ~~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 Pinal County hazardous air pollutant or 25 tons per year or more of any combination of Pinal County hazardous air pollutants.~~
 - ~~2. Any change to a minor source of hazardous air pollutants that would increase its emissions to the qualifying levels in §7-2-020.11.1 of this rule.~~~~
- ~~12. MINOR SOURCE OF PINAL 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.~~

13. — MODIFICATION/MODIFY —

1. — A physical change in, or change in the method of operation of, a source that increases the actual emissions of any Pinal County hazardous air pollutant (HAP) emitted by the source by more than any de minimis amount listed in Table 2 — Pinal 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 — Pinal County HAPs De Minimis Levels.

Table 2 — Pinal County HAPs De Minimis Levels

Chemical	De Minimis (Lb/Hour)	De Minimis (Lb/Year)
1,1,1 Trichloroethane (Methyl Chloroform)	117	14,247
1,1,2,2 Tetrachloroethane	N/A	0.20
1,3 Butadiene	N/A	0.39
1,4 Dichlorobenzene	N/A	1.9
2,2,4 Trimethylpentane	51	N/A
2,4 Dinitrotoluene	N/A	0.13
2-Chloroacetophenone	N/A	0.19
Acetaldehyde	N/A	5.3
Acetophenone	1.4	2,261
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	1.5
Benzyl Chloride	N/A	0.25
Beryllium Compounds (Selected Compound: Beryllium)	0.000707	0.0049
Biphenyl	2.1	1,130
bis (2 Ethylhexy) Phthalate	0.71	3.0
Bromoform	0.42	11
Cadmium Compounds (Selected Compound: Cadmium)	N/A	0.0065
Carbon Disulfide	18	4,522
Carbon Tetrachloride	N/A	0.78
Carbonyl Sulfide	1.7	N/A
Chlorobenzene	57	6,442
Chloroform	N/A	2.2
Chromium Compounds (Selected Compound: Hexavalent Chromium)	N/A	0.0010
Cobalt Compounds (Selected Compound: Cobalt)	N/A	0.0042
Cumene	53	2,583
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	6,442
Ethyl Chloride (Chloroethane)	71	64,420
Ethylene Dibromide (Dibromoethane)	N/A	0.020
Ethylene Dichloride (1,2-Dichloroethane)	N/A	0.45
Ethylene Glycol	2.8	2,583
Ethylidene Dichloride (1,1-Dichloroethane)	354	3,230
Formaldehyde	N/A	0.90
Glycol Ethers (Selected Compound: Diethylene Glycol, Monoethyl Ether)	14	19
Hexachlorobenzene	N/A	0.026
Hexane	659	13,689
Hydrochloric Acid	0.93	129
Hydrogen Fluoride (Hydrofluoric Acid)	0.56	90
Isophorone	0.71	12,946
Manganese Compounds (Selected Compound: Manganese)	0.14	0.32
Mercury Compounds (Selected Compound: Elemental Mercury)	0.058	1.9
Methanol	53	25,830
Methyl Bromide	15	32
Methyl Chloride	67	582
Methyl Hydrazine	N/A	0.0024
Methyl Isobutyl Ketone (Hexone)	28	19,388
Methyl Methacrylate	18	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	5.3
Propylene Dichloride	14	26
Selenium Compounds (Selected Compound: Selenium)	0.028	113
Styrene	31	6,442
Tetrachloroethylene (Perchloroethylene)	N/A	2.0
Toluene	109	146,766
Trichloroethylene	N/A	0.10
Vinyl Acetate	22	1,295
Vinyl Chloride	N/A	1.3
Vinylidene Chloride (1,2-Dichloroethylene)	2.1	1,295
Xylene (Mixed Isomers)	98	644

2. — A physical change in, or change in the method of operation of, a source that increases the actual emissions of any Pinal 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.

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;~~
 - c. ~~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.~~~~
14. ~~PINAL COUNTY HAZARDOUS AIR POLLUTANT (HAP) — Any federally listed hazardous air pollutant.~~
 15. ~~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.~~
 16. ~~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).~~
 17. ~~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.~~

7-2-030. Standards

1. ~~PINAL 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
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2 Acetylamino fluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4 Aminobiphenyl
62533	Aniline
90040	o Anisidine
1332214	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

111422	Diethanolamine
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
118741	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
58899	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' Methylene dianiline
91203	Naphthalene
98953	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
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Aroclors)
1120714	1,3 Propane sultone
57578	beta Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2 Dichloropropane)
75569	Propylene oxide
75558	1,2 Propylenimine (2 Methyl aziridine)
91225	Quinoline
106514	Quinone
100425	Styrene
96093	Styrene oxide
1746016	2,3,7,8 Tetrachlorodibenzo p dioxin
79345	1,1,2,2 Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4 Toluene diamine
584849	2,4 Toluene diisocyanate
95534	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)₂~~

~~Glycol Ethers~~

~~a. ——— Glycol ethers include mono and di ethers of ethylene glycol, diethylene glycol, and~~

~~———— triethylene glycol R-(OCH₂CH₂)_[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~~

~~2. ——— 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.~~

~~3. ——— MODIFICATIONS; PERMITS; PERMIT REVISIONS:-~~

~~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 chapter 3 of these rules and §7-2-030.3.2 of this rule or §7-2-030.3.3 of this rule~~

~~2. ——— A permit or significant permit revision that the Control Officer issues to a new or modified minor source of Pinal County hazardous air pollutants (HAPs) that is in one of the source categories listed in Table 1 Pinal County HAPs Minor Source Categories of this rule shall impose HAPRACT under §7-2-030.4 of this rule, unless the applicant demonstrates, with a risk management analysis (RMA) under §7-2-~~

~~030.6 of this rule, that the imposition of HAPRACT is not necessary to avoid adverse effects to human health or adverse environmental effects.~~

- ~~3. A permit or significant permit revision that the Control Officer issues to a new or modified major source of Pinal County hazardous air pollutants (HAPs) shall impose AZMACT under §7-2-030.5 of this rule, unless the applicant demonstrates, with a risk management analysis (RMA) under §7-2-030.6 of this rule, that the imposition of AZMACT is not necessary to avoid adverse effects to human health or adverse environmental effects.~~
- ~~4. If the Control Officer establishes a general permit establishing HAPRACT according to Chapter 3, Article 5, 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 §7-2-030.6 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 §7-2-030.6 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.~~~~
- ~~5. When determining whether HAP emissions from a new source or modification exceed the thresholds prescribed in §7-2-020.11 Definition Of Major Source Of Pinal County Hazardous Air Pollutants (HAPs) of this rule and §7-2-020.12 Minor Source Of Pinal County Hazardous Air Pollutants (HAPs) of this rule or a de minimis amount described in Table 2 Pinal County HAPs De Minimis Levels in §7-2-020.13.1 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.~~
- ~~6. In addition to the requirements of Appendix A 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:
 - ~~a. The applicant's proposal and documentation for HAPRACT under §7-2-030.4 of this rule;~~
 - ~~b. The applicant's proposal and documentation for AZMACT under §7-2-030.5 of this rule; or~~~~

~~c. A risk management analysis (RMA) submitted under §7-2-030.6 of this rule.~~

~~7. Any applicant for a permit or a permit revision under this rule may request accelerated permit processing under §3-7-630.~~

~~4. CASE BY CASE HAPRACT DETERMINATION:~~

~~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.~~

~~2. An applicant subject to §7-2-030.3.2 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:~~

~~i. A survey of similar emission sources to determine the emission limitations currently achieved in practice in the United States;~~

~~ii. Controls applied to similar source categories, emissions units, or gas streams through technology transfer; and~~

~~iii. 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.~~

~~b. The applicant shall propose as HAPRACT one of the control technologies identified under §7-2-030.4.2(a) Case By Case HAPRACT Determination of this rule and shall provide:~~

~~i. The rationale for selecting the specific control technologies from the range identified in §7-2-030.4.2(a) Case By Case HAPRACT Determination;~~

~~ii. Estimated control efficiency, described as percent HAP removed;~~

~~iii. Expected emission rates in tons per year and pounds per hour;~~

- iv. ~~Expected emission reduction in tons per year and pounds per hour;~~
 - v. ~~Economic impacts and cost effectiveness of implementing the proposed control technology;~~
 - vi. ~~Other environmental impacts of the proposed control technology; and~~
 - vii. ~~Energy impact of the proposed technology.~~
- e. ~~The applicant shall identify rejected control technologies identified in §7-2-030.4.2(a) Case-By-Case HAPRACT Determination of this rule and shall provide for each rejected control technology:~~
- i. ~~The rationale for rejecting the specific control technologies identified in §7-2-030.4.2(a) Case-By-Case HAPRACT Determination of this rule;~~
 - ii. ~~Estimated control efficiency described as percent HAP removed;~~
 - iii. ~~Expected emission rate in tons per year and pounds per hour;~~
 - iv. ~~Expected emission reduction in tons per year and pounds per hour;~~
 - v. ~~Economic impact and cost effectiveness of implementing the rejected control technologies;~~
 - vi. ~~Other environmental impact of the rejected control technology; and~~
 - vii. ~~Energy impact of the rejected control technologies.~~
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 §7-2-030.4.2 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:~~

- ~~i. Notify the applicant that the proposal failed to meet requirements;~~
 - ~~ii. Specify the deficiencies in the proposal; and~~
 - ~~iii. State that the applicant shall submit a new HAPRACT proposal according to the provisions regarding permit application processing procedures in Chapter 3 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.~~
- ~~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.~~
- ~~5. The Control Officer shall not impose a control technology that would require the application of measures that are incompatible with measures required under Chapter 7 Article 1 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.~~

~~5. CASE BY CASE AZMACT DETERMINATION:~~

- ~~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.~~
- ~~2. An applicant subject to §7-2-030.3.3 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 §7-2-020.5 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:~~

~~i. Estimated control efficiency described by percent of HAP removed;~~

~~ii. Expected emission rate in tons per year and pounds per hour;~~

~~iii. Expected emission reduction in tons per year and pounds per hour;~~

~~iv. Economic impact and cost effectiveness;~~

~~v. Other environmental impact; and~~

~~vi. Energy impact.~~

~~d. The applicant shall evaluate the most effective controls, listed according to §7-2-030.5.2.c Case By Case AZMACT Determination of this rule and document the results as follows:~~

~~i. For new major sources, the applicant shall consider the factors described in §7-2-030.5.2.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.~~
- ii. ~~For a modification, the applicant shall evaluate the control technologies according to §7-2-030.5.2.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:
 - i. ~~The most effective control technology or methodology not eliminated in the evaluation described in §7-2-030.5.2(d) Case By Case AZMACT Determination of this rule; or~~
 - ii. ~~An innovative technology that reduces emissions to the extent achieved by the control technology that the applicant otherwise would have proposed under §7-2-030.5.2(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.~~~~

- ~~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.~~
- ~~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:
 - ~~i. Notify the applicant that the proposal does not meet the requirements;~~
 - ~~ii. Specify the deficiencies; and~~
 - ~~iii. State that the applicant shall submit a new AZMACT proposal according to permit application processing procedures in Chapter 3 of these rules.~~~~
 - ~~c. 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.~~~~
- ~~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 standards, or combination of these, to be included in the applicant's permit, but shall not impose a numeric emissions limitation.~~
- ~~6. The Control Officer shall not impose a control technology that would require the application of measures that are incompatible with measures required under Chapter 7 Article 1 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.~~

~~6. RISK MANAGEMENT ANALYSIS (RMA):~~

~~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 Chapter 3 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:
 - ~~i. The source's annual total potential to emit Pinal County HAPs for evaluation of chronic exposure; or~~
 - ~~ii. The source's hourly total potential to emit Pinal County HAPs for evaluation of acute exposure.~~~~
- ~~d. The risk management analysis (RMA) for a modified source shall apply to:
 - ~~i. The source's annual total potential to emit Pinal County HAPs, after the modification, for evaluation of chronic exposure; or~~
 - ~~ii. The source's hourly total potential to emit Pinal County HAPs, after the modification, for evaluation of acute exposure.~~~~
- ~~e. An applicant shall conduct a risk management analysis (RMA) for each Pinal County HAP emitted by the source in greater than de minimis amounts.~~

~~2. The applicant may use any of the following methods for conducting a risk management analysis (RMA):~~

~~a. Tier 1 Equation:~~

- ~~i. 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 §7-2-030.6.3(e) Risk Management Analysis (RMA) Health Based Ambient Air Concentrations Of Pinal County HAPs of this rule.~~

- ii. ~~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.~~~~

- iii. ~~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.~~~~

- iv. ~~The Control Officer shall not require compliance with HAPRACT for the HAP under §7-2-030.4 Case By Case HAPRACT Determination of this rule or with AZMACT for the HAP under §7-2-030.5 Case By Case AZMACT Determination of this rule, if both of the following are true:

 - a. ~~The maximum hourly concentration determined under §7-2-030.6.2(a)(2) Risk Management Analysis (RMA) Tier 1 Equation of this rule is less than the acute ambient air concentrations determined under §7-2-030.6.3(c) Risk Management Analysis (RMA) Health Based Ambient Air Concentrations Of Pinal County HAPs of this rule; and~~
 - b. ~~The maximum annual concentration determined under §7-2-030.6.2(a)(3) Risk Management Analysis (RMA) Tier 1 Equation of this rule is less than the chronic ambient air concentrations determined under §7-2-030.6.3(c) Risk Management Analysis (RMA) Health Based Ambient Air Concentrations Of Pinal County HAPs of this rule.~~~~

- v. ~~If either the maximum hourly concentration determined under §7-2-030.6.2(a)(2) Risk~~

~~Management Analysis (RMA) Tier 1 Equation of this rule or the maximum annual concentration determined under §7-2-030.6.2(a)(3) Risk Management Analysis (RMA) Tier 1 Equation is greater than or equal to the relevant ambient air concentration:~~

~~a. The Control Officer shall require compliance with HAPRACT under §7-2-030.4 Case By Case HAPRACT Determination of this rule or with AZMACT under §7-2-030.5 Case By Case AZMACT Determination of this rule; or~~

~~b. The applicant may use the Tier 2-SCREEN model method under §7-2-030.6(2)(b) of this rule, the Tier 3-Modified SCREEN Model method under §7-2-030.6(2)(c) of this rule, or the Tier 4 Modified SCREEN Model or Refined Air Quality Model method under §7-2-030.6(2)(d) of this rule for conducting a risk management analysis (RMA) under §7-2-030.6 Risk Management Analysis (RMA) of this rule.~~

~~b. Tier 2-SCREEN Model:~~

~~i. The applicant shall use the SCREEN model performed in a manner consistent with the Guideline specified in Chapter 3, Article 3-Permit Requirements For New Major Sources And Major Modifications To Existing Major Sources, §3-3-250 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 §7-2-030.6.3-Risk Management Analysis (RMA) Health Based Ambient Air Concentrations Of Pinal County HAPs of this rule.~~

~~ii. If the predicted maximum concentration is less than the relevant ambient air concentration, the Control Officer shall not require compliance with HAPRACT under §7-2-030.4 Case By Case HAPRACT Determination of this rule or AZMACT under §7-2-030.5 Case By Case AZMACT Determination of this rule.~~

~~iii. 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 §7-2-030.4 Case By Case HAPRACT Determination of this rule or AZMACT under §7-2-030.5 Case By Case AZMACT Determination of this rule; or~~
- b. ~~The applicant may use the Tier 3 Modified SCREEN Model method under §7-2-030.6(2)(c) of this rule or the Tier 4 Modified SCREEN Model or Refined Air Quality Model method under §7-2-030.6(2)(d) of this rule for determining maximum public exposure to Pinal County HAPs under §7-2-030.6(2)(c) Risk Management Analysis (RMA) Tier 3 Modified SCREEN Model of this rule.~~
- c. ~~Tier 3 Modified SCREEN Model:~~
 - i. ~~The applicant shall use the SCREEN model performed in a manner consistent with the Guideline specified in Chapter 3, Article 3 Permit Requirements For New Major Sources And Major Modifications To Existing Major Sources, §3-3-250 Permit Requirements For Sources Located In Attainment And Unclassifiable Areas Air Quality Models of these rules.~~
 - ii. ~~For evaluation of acute exposure, the applicant shall assume exposure in the ambient air.~~
 - iii. ~~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 §7-2-030.6(2)(c)(3) Risk Management Analysis (RMA) Tier 3 Modified SCREEN Model of this rule to determine maximum public exposure to the Pinal County HAP.~~

- ~~iv. If the predicted maximum concentration is less than the relevant ambient air concentration, the Control Officer shall not require compliance with HAPRACT under §7-2-030.4 Case By Case HAPRACT Determination of this rule or AZMACT under §7-2-030.5 Case By Case AZMACT Determination of this rule.~~
- ~~v. 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 §7-2-030.4 Case By Case HAPRACT Determination of this rule or AZMACT under §7-2-030.5 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 §7-2-030.6(2)(d) of this rule for determining maximum public exposure to Pinal County HAPs, under §7-2-030.6(2)(d) of this rule.~~~~
- ~~d. Tier 4 Modified SCREEN Model or Refined Air Quality Model:
 - ~~i. The applicant shall employ either the SCREEN model or a refined air quality model performed in a manner consistent with the Guideline specified in Chapter 3, Article 3 Permit Requirements For New Major Sources And Major Modifications To Existing Major Sources, §3-3-250 Permit Requirements For Sources Located In Attainment And Unclassifiable Areas Air Quality Models of these rules.~~
 - ~~ii. For evaluation of acute exposure, the applicant shall assume exposure in the ambient air.~~
 - ~~iii. 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.~~

- ~~iv. 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.~~

- ~~v. The applicant shall submit a written protocol for conducting a risk management analysis (RMA), consistent with the requirements of §7-2-030.6(2)(d) Risk Management Analysis (RMA) 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 §7-2-030.4 Case By Case HAPRACT Determination of this rule or AZMACT under §7-2-030.5 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.~~

- vi. ~~If the predicted maximum concentration is less than the relevant ambient air concentration or if warranted under the factors listed in §7-2-030.6(2)(d)(4) Risk Management Analysis (RMA) Tier 4 Modified SCREEN Model or Refined Air Quality Model of this rule, the Control Officer shall not require compliance with HAPRACT under §7-2-030.4 Case By Case HAPRACT Determination of this rule or AZMACT under §7-2-030.5 Case By Case AZMACT Determination of this rule.~~
- vii. ~~Except as provided in §7-2-030.6(2)(d)(6) Risk Management Analysis (RMA) 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 §7-2-030.4 Case By Case HAPRACT Determination of this rule or AZMACT under §7-2-030.5 Case By Case AZMACT Determination of this rule.~~

3. ~~Health Based Ambient Air Concentrations Of Pinal County HAPs:~~

- a. ~~For Pinal 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.~~

Table 3 ~~Acute and Chronic Ambient Air Concentrations~~

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

Bromoform	7.5	1.72E-03
Cadmium Compounds (Selected Compound: Cadmium)	0.25	1.05E-06
Carbon Disulfide	311	7.30E-01
Carbon Tetrachloride	201	1.26E-04
Carbonyl Sulfide	30	N/A
Chlorobenzene	1,000	1.04E+00
Chloroform	195	3.58E-04
Chromium Compounds (Selected Compound: Hexavalent Chromium)	0.10	1.58E-07
Cobalt Compounds (Selected Compound: Cobalt)	10	6.86E-07
Cumene	935	4.17E-01
Cyanide Compounds (Selected Compound: Hydrogen Cyanide)	3.9	3.13E-03
Dibenzofurans	25	7.30E-03
Dichloromethane (Methylene Chloride)	347	4.03E-03
Dimethyl Formamide	164	3.13E-02
Dimethyl Sulfate	0.31	N/A
Ethyl Benzene	250	1.04E+00
Ethyl Chloride (Chloroethane)	1,250	1.04E+01
Ethylene Dibromide (Dibromoethane)	100	3.16E-06
Ethylene Dichloride (1,2 Dichloroethane)	405	7.29E-05
Ethylene Glycol	50	4.17E-01
Ethylidene Dichloride (1,1 Dichloroethane)	6,250	5.21E-01
Formaldehyde	17	1.46E-04
Glycol Ethers (Selected Compound: Diethylene Glycol, Monoethyl Ether)	250	3.14E-03
Hexachlorobenzene	0.50	4.12E-06
Hexane	11,649	2.21E+00
Hydrochloric Acid	16	2.09E-02
Hydrogen Fluoride (Hydrofluoric Acid)	9.8	1.46E-02
Isophorone	13	2.09E+00
Manganese Compounds (Selected Compound: Manganese)	2.5	5.21E-05
Mercury Compounds (Selected Compound: Elemental Mercury)	1.0	3.13E-04
Methanol	943	4.17E+00
Methyl Bromide	261	5.21E-03
Methyl Chloride	1,180	9.39E-02
Methyl Hydrazine	0.43	3.96E-07
Methyl Isobutyl Ketone (Hexone)	500	3.13E+00
Methyl Methacrylate	311	7.30E-01
Methyl Tert Butyl Ether	1,444	7.40E-03
N, N Dimethylaniline	25	7.30E-03
Naphthalene	75	5.58E-05
Nickel Compounds (Selected Compound: Nickel Refinery Dust)	5.0	7.90E-06
Phenol	58	2.09E-01
Polychlorinated Biphenyls (Selected Compound: Aroclor 1254)	2.5	1.90E-05
Polycyclic Organic Matter (Selected Compound: Benzo(a)pyrene)	5.0	2.02E-06
Propionaldehyde	403	8.62E-04
Propylene Dichloride	250	4.17E-03

Selenium Compounds (Selected Compound: Selenium)	0.50	1.83E-02
Styrene	554	1.04E+00
Tetrachloroethylene (Perchloroethylene)	814	3.20E-04
Toluene	1,923	5.21E+00
Trichlorethylene	1,450	1.68E-05
Vinyl Acetate	387	2.09E-01
Vinyl Chloride	2,099	2.15E-04
Vinylidene Chloride (1,2-Dichloroethylene)	38	2.09E-01
Xylene (Mixed Isomers)	1,736	1.04E-01

- b. ~~For Pinal 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 L- Procedures For Determining Ambient Air Concentrations For Hazardous Air Pollutants of these rules.~~
 - c. ~~For specific compounds included in Pinal 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 L- Procedures For Determining Ambient Air Concentrations For Hazardous Air Pollutants of these rules.~~
4. ~~As part of the risk management analysis (RMA), an applicant may voluntarily propose emissions limitations under §3-1-084 of these rules, in order to avoid being subject to HAPRACT under §7-2-030.4 Case-By-Case HAPRACT Determination of this rule or to avoid being subject to AZMACT under §7-2-030.5 Case-By-Case AZMACT Determination of this rule.~~
5. ~~Documentation Of Risk Management Analysis (RMA): The applicant shall document each risk management analysis (RMA) performed for each Pinal County HAP and shall include the following information:~~
- a. ~~The potential maximum public exposure of the Pinal County HAP;~~
 - b. ~~The method used to determine the potential maximum public exposure:~~
 - i. ~~For Tier 1 Equation, the calculation demonstrating that the emissions of the Pinal County HAP are less than the health-based ambient air concentration, determined under §7-2-030.6(3)(c) Risk Management Analysis (RMA) Health Based Ambient Air Concentrations Of Pinal County HAPs of this rule.~~
 - ii. ~~For Tier 2 SCREEN Model, the input files to and the results of the SCREEN Modeling.~~
 - iii. ~~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 §7-2-030.6(2)(c)(3) Risk Management Analysis (RMA) Tier 3 Modified SCREEN Model of this rule.~~
- iv. ~~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 §7-2-030.6(2)(d)(3) Risk Management Analysis (RMA) 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 §7-2-030.6(2)(d)(5) Risk Management Analysis (RMA) Tier 4 Modified SCREEN Model or Refined Air Quality Model of this rule;~~
- e. ~~The health-based ambient air concentrations determined under §7-2-030.6(3) Risk Management Analysis (RMA) Health Based Ambient Air Concentrations of Pinal County HAPs of this rule; and~~
 - d. ~~Any voluntary emissions limitations that the applicant proposes under §7-2-030.6(4) Risk Management Analysis (RMA) of this rule.~~
6. ~~An applicant may conduct a risk management analysis (RMA) for any alternative operating scenario, requested in the application, consistent with the requirements of §7-2-030.6(6) Risk Management Analysis (RMA) 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.~~

7-2-040. Administrative Requirements

- ~~1. EFFECTIVE DATE: The provisions of this rule shall be effective July 1, 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.~~

~~**7-2-050. Monitoring and Records (NOT APPLICABLE)**~~

**APPENDIX L. Reserved PROCEDURES FOR DETERMINING AMBIENT
AIR CONCENTRATIONS
FOR HAZARDOUS AIR POLLUTANTS**

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~~**SECTION 1 – APPLICABILITY**~~

~~**SECTION 2 – CHRONIC AMBIENT AIR CONCENTRATIONS**~~

~~**SECTION 3 – ACUTE AMBIENT AIR CONCENTRATIONS**~~

APPENDIX L

PROCEDURES FOR DETERMINING AMBIENT AIR CONCENTRATIONS FOR HAZARDOUS AIR POLLUTANTS

- ~~1. **APPLICABILITY:** The procedure described in Appendix L 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 Chapter 7 Article 2 Pinal 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 Chapter 7 Article 2 Pinal 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/m³) by applying the following equation:~~

$$\text{---TR} \times \text{ATc} / (\text{EF} \times \text{IFA adj} \times [\text{URF} \times \text{BW} / \text{IR}])$$

Where: ~~TR = 1E-06~~
 ~~ATc = 25,550 days~~
 ~~EF = 350 days/year~~
 ~~IFA adj = 11m³-year/kg-day~~
 ~~BW = 70 kg~~
 ~~IR = 20 m³/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 (RPG) 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 concentration 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/m³) by applying the following equation:~~

$$\text{TR} \times \text{ATc} / (\text{EF} \times \text{IFA adj} \times [\text{CalURF} \times \text{BW} / \text{IR}])$$

Where:

- ~~TR = 1E-06~~
- ~~ATc = 25,550 days~~
- ~~EF = 350 days/year~~
- ~~IFA adj = 11m³-year/kg-day~~
- ~~BW = 70 kg~~
- ~~IR = 20 m³/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.~~
- ~~c. **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 Chapter 7 Article 2 Pinal County Hazardous Air Pollutants (HAPS) Program §7 2-030.6 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 Chapter 7 Article 2 Pinal County Hazardous Air Pollutants (HAPS) Program §7-2-030.6 Risk Management Analysis (RMA) of these rules or forego the risk management analysis (RMA) option.~~