

**SUBCHAPTER 41. CONTROL OF EMISSION OF HAZARDOUS AIR  
POLLUTANTS (HAPs) AND TOXIC AIR CONTAMINANTS**

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SUBCHAPTER 41. CONTROL OF EMISSION OF HAZARDOUS AIR  
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PART 1. GENERAL PROVISIONS

**252:100-41-1. Purpose**

~~The purpose of this~~ This Subchapter ~~is to sets forth~~ requirements for the control of the ~~routine emission~~ emissions of hazardous air pollutants (HAPs) and toxic air contaminants from stationary sources, ~~not to include accidental, or catastrophic releases.~~ This Subchapter does not regulate accidental or catastrophic releases.

**252:100-41-2. Definitions**

The following words and terms, when used in this Subchapter, shall have the following meaning, unless the context clearly indicates otherwise:

~~"Affected area" means any area in which the MAAC is being exceeded as the result of emissions from two or more area sources.~~ *[NOTE: In the proposed revision this term in conjunction with "area source" will no longer be used in SC-41.]*

~~"Area source" means any source which, in combination with one or more other sources, emits a toxic air contaminant in sufficient quantities as to cause or contribute to a violation of the MAAC.~~ *[NOTE: This term only appeared in 252:100-41-39, which has been rewritten in the proposed draft to eliminate the use of the term and moved to 252:100-41-38. EPA uses the term "area source" to mean something different in Title III. To avoid the confusion of having two different definitions for one term, we propose to delete the term from Subchapter 41.]*

~~"Best available control technology (BACT)" means the best control technology that is available for each contaminant. This determination will be made by the Executive Director on a case by case basis taking into account energy, environmental, health risk, costs and economic impacts of alternative control systems.~~ *[NOTE: This term is defined in several places and probably should be defined in Subchapter 1. I think we want as few differing definitions of BACT as possible. I see no reason why the definition in 252:100-7-1.1 shouldn't apply here as well.]*

**"Confirmed human carcinogen"** means substances recognized to have carcinogenic or cocarcinogenic potential in humans.

**"Dose-response assessment"** means the determination of the relation between the magnitude of exposure and the probability of occurrence of the health effects in question.

**"Exposure assessment"** means the determination of the extent of human exposure.

**"Hazard identification"** means the determination of whether a particular chemical is or is not causally linked to particular health effects.

~~"Hazardous air contaminant pollutant (HAP)"~~ "Hazardous air pollutant (HAP)" means any hazardous air pollutant regulated under Section 112 of the

federal Clean Air Act, 42 U.S.C. Section 7412, and subject to national emission standards (NESHAP).

**"Maximum acceptable ambient concentration (MAAC)"** means the maximum allowable twenty-four hour average concentration, in ambient air, of a toxic air contaminant.

**"Median lethal concentration (LC<sub>50</sub>)"** means the atmospheric concentration found to be lethal to 50 percent of a group of test animals exposed for the specified time period.

**"Median lethal dose (LD<sub>50</sub>)"** means the dose found to be lethal in 50 percent of a group of test animals when administered by the specified route, e.g., oral or dermal.

~~**"NESHAP" "National emission standards for hazardous air pollutants (NESHAP)"**~~ means ~~the National Emission Standards for Hazardous Air Pollutants those standards~~ as published by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Section 112 of the Federal Clean Air Act, 42 U.S.C. Section 7412.

**"Occupational exposure limit (OEL)"** means the most restrictive eight-hour time weighted average concentration specified for workroom air selected from either the ~~1986-1987-2002~~ Threshold Limit Values and Biological Exposure Indices as adopted by the American Conference of Governmental Industrial Hygienists; the Recommended Standards for Occupational Exposure set forth in the ~~July, 1985-2002~~ summary of National Institute for Occupational Safety and Health Recommendations for Occupational Health Standards; or the ~~1986-2002~~ Workplace Environmental Exposure Levels set forth by the American Industrial Hygiene Association.

**"Risk characterization"** means the description of the nature and often the magnitude of human risk, including a description of the attendant uncertainty.

~~**"Stationary source"** means any building, structure, facility or installation which emits or may emit any toxic air contaminant.~~ *[NOTE: This term is defined in Subchapter 1. The primary difference is that this definition refers to toxic air contaminants and the definition in SC-1 refers to "any pollutant subject to regulation" or "an air pollutant". The term is also defined in 252:100-8-1.2 which refers to "pollutants subject to 252:100"; and in 252:100-8-2 which refers to "any pollutant listed under section 112(b) of the Act." I believe these definitions can be construed to include toxic air contaminants, therefore there is no need to define it here.]*

**"Substances of high toxicity"** means those chemicals having an acute toxicity of either:

- (A) median lethal dose, single oral dose, rat, less than or equal to 50 mg/kg, or
- (B) median lethal concentration, four-hour inhalation exposure, rat, less than or equal to 100 ppm, or,
- (C) median lethal dose, dermal exposure, rabbits, less than or equal to 100 mg/kg.

~~"Substances of low toxicity" means those substances which have been shown to produce low toxicity or irritation, or those chemicals having an acute toxicity of either:~~

- ~~(A) median lethal dose, single oral dose, rat, greater than 500 mg/kg but less than 5 g/kg, or~~
- ~~(B) median lethal concentration, four hour inhalation exposure, rat, greater than 1,000 ppm but less than 10,000 ppm, or,~~
- ~~(C) median lethal dose, dermal exposure, rabbits, greater than 500 mg/kg but less than 3,000 mg/kg.~~

**"Substances of moderate toxicity"** means those substances which have been shown to produce moderate toxicity following exposure or have been demonstrated to produce carcinogenic, mutagenic, or teratogenic action in a single animal species with little or no human evidence of carcinogenic, mutagenic, or teratogenic action, or those chemicals having an acute toxicity of either:

- (A) median lethal dose, single oral dose, rat, greater than 50 mg/kg but less than 500 mg/kg, or
- (B) median lethal concentration, four-hour inhalation exposure, rat, greater than 100 ppm but less than 1,000 ppm, or,
- (C) median lethal dose, dermal exposure, rabbits, greater than 100 mg/kg but less than 500 mg/kg.

"Substances of concern" means those substances that are not substances of high or moderate toxicity and are listed in Appendix O. These substances include

- (A) hazardous air pollutants.
- (B) substances that have been shown to cause adverse health effects in humans and are emitted by point sources in Oklahoma.

**"Suspect human carcinogen"** means a substance suspected of inducing cancer based on human evidence or demonstration by appropriate methods, or carcinogenesis in two or more animal species or strains.

**"Threshold limit value (TLV)"** means airborne concentrations of substances established by the American Conference of Governmental Industrial Hygienists which represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect.

**"Toxic air contaminant"** means any substance or group of substances that is included in Appendix O of this chapter or which meets the criteria for a "substance of high toxicity" (Category A) or "substance of moderate toxicity" Category B set forth in OAC 252:100-41-40. substance, other than a HAP, determined to be a category "A" (High Toxicity), or category "B" (Moderate Toxicity) or category "C" (Low Toxicity) pollutant under the criteria set forth in 252:100-41-40.

**"Workplace environmental exposure level"** means workplace exposure levels set forth by the American Industrial Hygiene Association to which, it is believed,

nearly all employees could be repeatedly exposed without adverse effects.

[NOTE: Part 3 will be revised separately to update the Part 61 and 63 standards.]

## PART 5. TOXIC AIR CONTAMINANTS

### 252:100-41-35. Applicability

This Part applies to any new or existing stationary source ~~which~~that emits any toxic air contaminant except as exempted in 252:100-40-43.

### 252:100-41-36. ~~General prohibition; scope~~Compliance with the MAAC

~~(a) Except as otherwise provided, upon the effective date of this Part starting March 9, 1987, no person shall cause or permit the emission of any toxic air contaminant in such concentration as to cause or contribute to a violation of the MAAC.~~

~~(b) All new sources which emit or may emit a toxic air contaminant are subject to the requirements of OAC 252:100-7.~~

### 252:100-41-37. New sources

(a) New sources emitting any category "A" pollutant shall be required, as a minimum, to install ~~Best~~best available control technology (BACT).

~~(b) New sources unable to demonstrate compliance with 252:100-41-36(a) because of the unavailability of economic or technically feasible controls and upon presentation of adequate proof of same, or can show that the MAAC is clearly unreasonable, may otherwise obtain a permit by:~~

- ~~(1) installing, at a minimum, BACT; and,~~
- ~~(2) submitting toxicological and other data sufficient to demonstrate that the resultant ground level concentrations will not create a condition of air pollution. Such demonstration may include any or all of the following:~~
  - ~~(A) hazard identification,~~
  - ~~(B) dose response assessment,~~
  - ~~(C) exposure assessment, and,~~
  - ~~(D) risk characterization.~~

(b) New sources that are unable to demonstrate compliance with a MAAC even when BACT is applied, may, upon presentation of adequate proof and subject to approval of the Division, obtain a permit by installing BACT and submitting toxicological and other data sufficient to demonstrate that the resultant ground level concentrations

will not create a condition of air pollution. Such demonstration may include any or all of the following data.

- (1) Hazard identification.
- (2) Dose-response assessment.
- (3) Exposure assessment.
- (4) Risk characterization.

**252:100-41-38. Existing sources**

~~(a) Existing sources not emitting a confirmed human carcinogen and unable to demonstrate compliance with 252:100-41-36(a) shall install appropriate abatement equipment to meet the MAAC requirement. However, upon presentation of adequate proof of the unavailability of economic or technically feasible control, or a showing that the MAAC is clearly unreasonable, existing sources may otherwise obtain authority to operate:~~

~~(1) by submitting:~~

- ~~(A) proof that reasonable control measures are being used or will be installed; and,~~
- ~~(B) toxicological and other data sufficient to demonstrate that the resultant ground level concentrations off site will not create a condition of air pollution. Such demonstration may include any or all of the following:~~

- ~~(i) hazard identification,~~
- ~~(ii) dose response assessment,~~
- ~~(iii) exposure assessment, and,~~
- ~~(iv) risk characterization; and,~~

~~(2) upon obtaining written approval of the Executive Director.~~

(a) Existing sources not emitting a confirmed human carcinogen shall install appropriate abatement equipment, if required, to comply with a MAAC. However, upon presentation to the Division of adequate proof of the unavailability of economically or technically feasible control, existing sources may obtain written authority from the Division Director to operate. To do so, existing sources must submit proof that reasonable control measures are being used or will be installed and must submit toxicological and other data sufficient to demonstrate that the resultant ground level concentrations off site will not create a condition of air pollution. Such demonstration may include any or all of the following data.

- (1) Hazard identification.
- (2) Dose response assessment.
- (3) Exposure assessment.
- (4) Risk characterization.

~~(b) In the case of a confirmed human carcinogen, an existing source unable to demonstrate compliance with 252:100-41-36(a) may otherwise obtain authority to operate by installing BACT, or:~~

~~(1) by submitting:~~

~~(A) proof that reasonable control measures are being used; and,~~

~~(B) a demonstration that maximum ground level concentrations off site are:~~

~~(i) below analytical detection limits using gas chromatograph/mass spectrometer analysis or the equivalent, or,~~

~~(ii) below that concentration which has been determined to be associated with a lifetime cancer risk of one in one million ( $10^6$ ) using standard cancer risk assessment techniques and assuming seventy (70) years of exposure, or,~~

~~(iii) below the threshold level divided by 100, provided that a threshold effect is known and accepted by the National Toxicology Program, the National Cancer Institute, or the International Agency for Research on Cancer; and,~~

~~(2) upon obtaining written approval of the Executive Director.~~

(b) Existing sources emitting a confirmed human carcinogen in amounts causing or contributing to the violation of a MAAC may obtain written authority from the Division Director to operate by installing BACT, or by submitting proof that reasonable control measures are being used and that maximum ground level concentrations off-site are:

(1) below analytical detection limits using gas chromatograph/mass spectrometer analysis or the equivalent, or,

(2) below that concentration which has been determined to be associated with a lifetime cancer risk of one in one million ( $10^6$ ) using standard cancer risk assessment techniques and assuming seventy (70) years of exposure, or,

(3) below the threshold level divided by 100, provided that a threshold effect is known and accepted by the National Toxicology Program, the National Cancer Institute, or the International Agency for Research on Cancer.

(c) If monitoring or modeling data shows that the MAAC for any toxic air pollutant is being violated in an area due to the combined emissions of two or more sources, those sources shall be considered as existing sources. Said sources shall be subject to 252:100-41-38.

**252:100-41-39. Area sources [Rewritten and moved to 252:41-38(c)]**

~~In the event that it can be shown by monitoring data that the MAAC for any toxic air pollutant is being exceeded in an affected area, any area source shall be considered an existing source and shall be subject to the requirements of 252:100-41-36 and 252:100-41-38. [NOTE: The requirements of this~~

*Section have been rewritten to remove the term "area source" and moved to 252:100-41-38. EPA uses the term "area source" in Title III. It will be less confusing not to use the same term to mean two different things.]*

**252:100-41-40. Maximum acceptable ambient concentrations (MAAC)**

(a) **Toxics classification.** The following categories, consistent with the definitions in 252:100-41-2 comprise the basis for determination of the MAAC:

- (1) category A - highly toxic substances, including:
  - (A) suspect and confirmed human carcinogens, and,
  - (B) substances of high toxicity;
- (2) category B - substances of moderate toxicity;

~~(3) category C - substances of low toxicity.~~

(b) **Maximum acceptable ambient concentrations.** For those substances in each category having a prescribed occupational exposure limit, the maximum acceptable ambient concentration shall be as follows:

(1) for category A substances, one-one hundredth of the OEL (MAAC = OEL/100);

(2) for category B substances, one fiftieth of the OEL (MAAC = OEL/50);

~~(3) for category C substances, one tenth of the OEL (MAAC = OEL/10).~~

(c) **Case-by-case determinations.** For substances in all categories not having a prescribed OEL, the MAAC will be determined on a case-by-case basis using the best scientific data available. ~~Any Such MAAC so determined will shall be in accordance with the intent and purpose of the Oklahoma Clean Air Act and as determined necessary to set at a level that will prevent air pollution and protect the health, safety and welfare of the public. The applicant shall be responsible for providing information and data sufficient for staff review.~~

**252:100-41-40.1 Toxic air contaminant list.**

~~(a) Appendix O contains the list of substances determined to be toxic air contaminants and their corresponding MAAC standards.~~

~~(b) Substances shall be added to or removed from this list through rulemaking.~~

**252:100-41-41. Emissions inventories [REVOKED]**

~~(a) All existing sources shall conduct an emissions inventory of toxic air contaminants. Said inventory shall be registered in accordance with OAC 252:100-5.~~

~~(b) Inventories will be submitted or updated upon request of the Executive Director and upon forms provided for that purpose. Emission inventory forms will generally consist of four data sets:~~

- ~~(1) physical information which will include but is not limited to process unit size, stack diameter and stack flow rates;~~

~~(2) process information, e.g., tons used, tons produced;~~

~~(3) control equipment and their efficiencies; and,~~

~~(4) emission rates based on best information available from~~

~~(A) actual test,~~

~~(B) material balance,~~

~~(C) emission factors, or~~

~~(D) engineering estimates.~~

~~(c) All inventories shall be due in the offices of the Air Quality Division no later than three months from the date of request. [NOTE: Emission inventory requirements are in Subchapter 5]~~

#### **252:100-41-42. Compliance requirements**

It shall be the responsibility of the Department to obtain routine modeling and/or monitoring data. However, upon the showing of the need for more extensive or more precise data, the source may be required to furnish additional modeling, using the most appropriate EPA approved model for the source, and/or monitoring.

~~(1) (1) Said modeling and/or monitoring shall be required only upon a showing that the source may cause or contribute to the violation of the MAAC; all modeling, monitoring and testing shall be accomplished in accordance with a pre test plan approved by the Executive Director.~~

~~(2) All modeling, monitoring and testing shall be accomplished in accordance with a pre-test plan approved by the Division Director.~~

~~(2)(3) Failure, or denial by an owner or operator the source to provide the requested modeling, monitoring or testing shall be a violation of this subsection, and subject to the order and hearing requirements under the Oklahoma Clean Air Act, 27A O.S. 1993 Supp. Sec. 2-5-101 et seq.~~

#### **252:100-41-43. Exemptions**

(a) This Part does not apply to the following:

(1) any pollutant for which an Oklahoma Air Quality primary or secondary standard exists and has been set forth under OAC 252:100-3, to the extent of the criteria for which it was listed; ~~or.~~

~~or,~~ (2) the application of pesticides and fertilizers;

(3) any source operation for which an emission standard is in effect under OAC 252:100-41-15; ~~or,~~

(4) any substance which would be considered to be a toxic air contaminant by virtue of its radioactivity; ~~or~~

(5) any source which emits less than 10 pounds per month or 0.14 pound per hour of any toxic air contaminant that is not a carcinogen or cocarcinogen.

~~or~~

~~(5) sources with de minimis emissions as provided below:~~

~~(A) for category "C" (low toxicity) substances, six tons per year not to exceed 5.6 pounds per hour,~~

~~(B) for category "B" (moderate toxicity) substances, 1.2 tons per year, not to exceed 1.1 pounds per hour, or,~~

~~(C) for category "A" (highly toxic) substances, 1,200 pounds per year, not to exceed .57 pounds per hour.~~

~~(6) emissions of hydrogen sulfide, sulfuric acid mist from sulfuric acid plants, or total reduced sulfur from kraft pulping operation;~~

~~(7) incinerators subject to New Source Performance Standards or OAC 252:100-17, Parts 5, 7 or 9. standards or guidelines promulgated pursuant to Section 111 of the federal Clean Air Act;~~

~~(8) VOC storage vessels subject to 40 CFR 60, 40 CFR 61, 40 CFR 63; OAC 252:100-37, or OAC 252:100-39.~~

~~(b) Provided further that de minimis exemptions under this Section shall not apply to any source which can be shown to cause or contribute to a violation of 252:100-41-36(a). If monitoring or modeling data shows that the MAAC standard for any toxic air contaminant is being violated in an area due to the combined emissions of two or more sources, the exemption for de minimis facilities shall not apply to any facility in that area that can be shown to contribute to the violation.~~

#### **252:100-41-44. Compliance date**

(a) Permits for all new sources shall be required ~~upon the effective date of this Subchapter~~ after March 8, 1987.

(b) Existing sources shall be in full compliance with the requirements of this Subchapter ~~within one year of its effective date by March 9, 1988.~~

(c) For the purposes of this Subchapter, any source under construction on ~~the effective date of this Subchapter~~ March 9, 1987 shall be considered an existing source, provided that a permit to construct has been granted.

(d) Any existing source not currently in operation, and not under construction or modification, shall be in full compliance within one year of the start up of operations.

(c) When a substance added to the toxic air contaminant list, existing sources that emit this substance shall have one year to come into compliance with the MAAC.