



# 7C NESHAP for Area Sources: Paints and Allied Products Manufacturing

## Rule overview

In December 2009, the Environmental Protection Agency (EPA) finalized a rule in the Code of Federal Regulations (40 CFR Part 63 Subpart CCCCCC) titled National Emission Standards for Hazardous Air Pollutants (NESHAP) for Area Sources: Paints and Allied Products Manufacturing. This guidance document is designed to assist Kansas facilities in complying with this regulation; for full requirements, refer to the [regulation \(<http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=a1d18084af15a9bca641da1b3673af3b&rqn=div6&view=text&node=40:15.0.1.1.1.42&idno=40>\)](http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=a1d18084af15a9bca641da1b3673af3b&rqn=div6&view=text&node=40:15.0.1.1.1.42&idno=40).

## Does the rule apply to you?

### You are subject to the 7C rule —

- if you own or operate a facility that manufactures paints and allied products, and
- your facility is an **area source** of hazardous air pollutant (HAP) emissions and processes, uses, or generates materials containing benzene, methylene chloride, and compounds of cadmium (Cd), chromium (Cr), lead (Pb), or nickel (Ni).

### Are you a “new” or “existing” source?

If you began construction or reconstruction before June 1, 2009, your facility is considered an “existing” source. Otherwise, it’s considered “new.”

### Exemptions to the rule

- Facility no longer processes, uses, or generates materials containing HAPs and doesn’t plan to in the future.
- Research and development facilities (as defined in section 112(c)(7) of the Clean Air Act).

## When do I need to be in compliance?

**Existing sources:** December 3, 2012

**New sources:** December 3, 2009 or upon startup

## General compliance requirements

In addition to general provisions in 40 CFR 63, Subpart A -General Provisions, the 7C rule includes the following compliance requirements:

During the addition of dry pigments and solids that contain compounds of cadmium (Cd), chromium (Cr), lead (Pb), or nickel (Ni) to a process vessel or to the grinding and milling process, operate a capture system that minimizes fugitive particulate emissions (using a particulate control device). *This requirement does not apply to pigments and other solids that are in paste, slurry, or liquid form.*

During grinding and milling of materials, capture particulate emissions by—

- routing them to a particulate control device (in which visible emissions do not exceed 10% opacity for devices that vent to the atmosphere), or
- fully enclosing the grinding and milling equipment, or
- ensuring pigments and solids are in the solution.

Process and storage vessels containing benzene or methylene chloride, (except for mixing vessels), must be equipped with covers or lids, that—

- are of solid or flexible construction, provided they do not warp or move around during the manufacturing process, and
- maintain contact along at least 90% of the vessel rim. The 90% contact requirement is calculated by subtracting the length of any visible gaps from the circumference of the process vessel, and dividing this number by the circumference of the process vessel. The resulting ratio must not exceed 90%. (*example on next page*), and
- are kept in good condition.

All vessels that store or process materials containing benzene or methylene chloride must be kept covered at all times, except for quality control testing and product sampling, addition of materials, material removal, or when the vessel is empty.

The vessel is considered to be empty if—

- all materials containing benzene or methylene chloride have been removed that can be removed using the practices commonly employed to remove materials from that type of vessel (e.g., pouring, pumping, and aspirating); and
- no more than 2.5 centimeters (1") depth of residue remains on the bottom of the vessel, or no more than 3 percent by weight of the total capacity of the vessel remains in the vessel.

Mixing vessels that store or process materials containing benzene or methylene chloride must be equipped with covers that completely cover the vessel, except as necessary to allow for safe clearance of the mixer shaft.

Leaks and spills of materials containing benzene or methylene chloride must be minimized and cleaned up as soon as practical, but no longer than 1 hour from the time of detection.

Rags or other materials that use a solvent containing benzene or methylene chloride for cleaning must be kept in a closed container. The closed container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.

#### **Example for calculating 90% contact requirement**

A process vessel has a circumference of 200 inches. When the lid is placed on the process vessel there are two visible gaps. The length of one gap measures 6 inches along the circumference of the vessel, and the other gap measures 10 inches. The equation for determining if this lid meets the 90 percent requirement is as follows:

*Lid coverage*

In this case, the lid described above meets the 90 percent requirement. If the percentage is less than 90 percent, you must fix or replace your process vessel cover. You must do this equation for each vessel.

## **Performance test requirements**

**Prior to startup**, you must demonstrate initial compliance to the rule by conducting an initial inspection of each particulate control device (and performing corrective actions when necessary) **and a visible emissions test**:

- For wet particulate control systems, you must verify the presence of water flow to the control equipment. You must also visually inspect the system ductwork and control equipment for leaks and inspect the interior of the control equipment (if applicable) for structural integrity and the condition of the control systems.
- For dry particulate control systems, you must visually inspect system ductwork and dry particulate control unit for leaks. You must also inspect the inside of each dry particulate control unit for structural integrity and condition.
- An initial inspection of the internal components of a wet or dry particulate control system is not required if there is a record that an inspection was performed within the past 12 months and any maintenance actions were resolved.
- The visible emission test shall consist of three 1-minute test runs using Method 203C (40 CFR part 51, appendix M). The visible emission test runs must be performed during addition of dry pigments and solids containing compounds of Cd, Cr, Pb, or Ni to a process vessel or to grinding and milling equipment. If the average test results of the visible emissions test runs indicate an opacity greater than 10%, you must take corrective action and retest within 15 days.

You must also perform ongoing particulate control device inspections and tests (and perform corrective actions when necessary):

- Inspect and maintain each wet particulate control system:
  - daily inspections to verify the presence of water flow to the wet particulate control system
  - weekly visual inspections of any flexible ductwork for leaks
  - inspections of the rigid, stationary ductwork for leaks, and the interior of the wet control system (if applicable) to determine the structural integrity and condition of the control equipment **every 12 months**
- Inspect and maintain each dry particulate control unit:
  - weekly visual inspections of any flexible ductwork for leaks
  - inspections of the rigid, stationary ductwork for leaks, and the interior of the dry particulate control unit for structural integrity and to determine the condition of the fabric filter (if applicable) **every 12 months**

- For each particulate control device, conduct a 5-minute visual determination of emissions every 3 months using Method 22 (40 CFR part 60, appendix A-7).
  - The visible emission test must be performed during the addition of dry pigments and solids containing compounds of Cd, Cr, Pb, or Ni to a process vessel or to the grinding and milling equipment.
  - If visible emissions are observed for two minutes of the required 5-minute observation period, you must conduct a Method 203C (40 CFR part 51, appendix M) test within 15 days of the time when visible emissions were observed. The Method 203C test will consist of three 1-minute test runs and must be performed during the addition of dry pigments and solids containing compounds of Cd, Cr, Pb, or Ni to a process vessel or to the grinding and milling equipment.
  - If the Method 203C test runs indicates an opacity greater than 10%, you must—
    - ◊ take corrective action and retest using Method 203C within 15 days. You must continue to take corrective action and retest each 15 days until a Method 203C test indicates an opacity equal to or less than 10%, and
    - ◊ prepare a deviation report for each instance in which the Method 203C opacity results were greater than 10%, and
    - ◊ resume the visible determinations of emissions three months after the previous visible determination (using EPA Method 22).

### **Notification, reporting, and recordkeeping**

Information to be recorded during each inspection includes:

- date, place, and time
- person conducting the activity
- technique or method used
- operating conditions during the activity
- results
- description of correction actions taken

#### **You must submit two notifications\*:**

- Initial notification of applicability
  - Existing sources: due by June 1, 2010
  - New sources: due no later than 180 days after initial start-up of operations .
- Notification of compliance status
  - Existing sources: due by June 3, 2013
  - New sources: due no later than 180 days after initial start-up of operations.

*Example forms are available online at:*  
[www.sbeap.org/aqrules/page/7c-rule](http://www.sbeap.org/aqrules/page/7c-rule)

#### **No longer subject to the rule? You must submit a notification that includes:**

- Company's name and address
- Statement by a responsible official stating your facility no longer process, uses, or generates materials containing HAPs, and there are no plans to do so in the future.
- Date by which your facility ceased using materials containing HAPs.
- Responsible official's name, title, phone number, email address, and signature.

#### **Annual compliance certification report\***

- Only submit if deviation from requirements has occurred.
- Annual report is based on the calendar year.
- Prepare report no later than Jan. 31 for the previous calendar year. Keep in a readily-accessible location for inspector review. **If a deviation occurred, report must be submitted (along with deviation report) and postmarked by Feb. 15.**
- Compliance certification report must include:
  - Company name and address
  - Date of report
  - Signature of responsible official certifying information is truthful, accurate, and complete (includes official's name, title, phone number, and email address)
- If deviation occurs, include a description of deviations, time periods when deviation occurred, and corrective actions taken. Submit this deviation report with your annual compliance certification report.

#### **Other recordkeeping requirements**

- Keep records for at least five years from the date of each recorded action. Each record must be kept onsite for at least two years; they may be kept offsite for the remaining three years.
- Records to keep:
  - A copy of each submitted notification
  - Each annual compliance certification report
  - Records of all inspections and tests

**\*See back page for addresses to send notifications and annual compliance reports.**

## Frequently asked questions

---

### What is a HAP?

Any air pollutant listed in or pursuant to section 112(b) of the Clean Air Act. To view the list of HAPs, visit the EPA website at [www.epa.gov/ttn/atw/orig189.html](http://www.epa.gov/ttn/atw/orig189.html).

### What is an area source of HAPs?

Any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, less than 10 tons per year of any hazardous air pollutant or less than 25 tons per year of any combination of hazardous air pollutants.

### Are there minimum levels for a material to be considered to contain HAPs?

Yes. A material is assumed to contain HAPs if it contains benzene, methylene chloride, or compounds of cadmium, chromium, lead, and/or nickel, in amounts greater than or equal to 0.1 percent by weight for carcinogens, as defined by the Occupational Safety and Health Administration at 29 CFR 1910.1200(d)(4), or 1.0 percent by weight for non-carcinogens, as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material. Benzene and methylene chloride are volatile HAP. Compounds of cadmium, chromium, lead and/or nickel are metal HAP.

### What are considered “paints and allied products”?

Paints and allied products include: paints, inks, adhesives, stains, varnishes, shellacs, putties, sealers, caulks, and other coatings from raw materials that are intended to be applied to a substrate and consists of a mixture of resins, pigments, solvents, and/or other additives. *Not included are thinners, paint removers, brush cleaners, and mold release agents; electroplated and electroless metal films; raw materials such as resins, pigments, and solvents use in the production of paints and coatings; and activities by end users of paints or allied products to ready those materials for application.*

This publication was created by Kansas State University's Pollution Prevention Institute through the Small Business Environmental Assistance Program (SBEAP). SBEAP's mission is to help Kansas small businesses comply with environmental regulations and identify pollution prevention opportunities. SBEAP is funded through a contract with the Kansas Department of Health and Environment. SBEAP services are free and confidential. For more information, call 800-578-8898, send an e-mail to [sbeap@ksu.edu](mailto:sbeap@ksu.edu), or visit our Web site at [www.sbeap.org](http://www.sbeap.org). Kansas State University is an EEO/AA provider.

## Addresses

---

### Addresses for notifications and annual certification reports:

#### KDHE Bureau of Air and Radiation

1000 SW Jackson, Suite 310  
Topeka, KS 66612-1366  
785-296-1542

#### USEPA Region 7

Joe Terriquez  
Air Permitting and Compliance Branch  
11201 Renner Boulevard  
Lenexa, KS 66219  
866-411-4372

## Acronyms

---

CFR = code of federal regulations

EPA = Environmental Protection Agency

HAP = hazardous air pollutants

KDHE = Kansas Department of Health and Environment

NESHAP = national emission standards for hazardous air pollutants

### Notice of nondiscrimination

Kansas State University is committed to nondiscrimination on the basis of race, color, ethnic or national origin, sex, sexual orientation, gender identity, religion, age, ancestry, disability, military status, veteran status, or other non-merit reasons, in admissions, educational programs or activities and employment, including employment of disabled veterans and veterans of the Vietnam Era, as required by applicable laws and regulations. Responsibility for coordination of compliance efforts and receipt of inquiries concerning Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Americans With Disabilities Act of 1990, has been delegated to the Director of Affirmative Action, Kansas State University, 214 Anderson Hall, Manhattan, KS 66506-0124, (Phone) 785-532-6220; (TTY) 785-532-4807.

**KANSAS STATE**  
**UNIVERSITY**