



CONSTRUCTION PERMITS AND APPROVALS INFORMATIONAL SHEET

KDHE, BUREAU OF AIR AND RADIATION
(785) 296- 1570

ANY PERSON WHO PROPOSES TO CONSTRUCT OR MODIFY A SOURCE OF AIR EMISSIONS MAY NEED A PERMIT OR AN APPROVAL PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY. (K.A.R. 28-19-300)

This document addresses, in summary form, the following:

- I. Who needs a construction permit prior to commencing construction or modification;
- II. Who needs a construction approval prior to commencing construction or modification;
- III. Calculating potential-to-emit;
- IV. Submitting a construction permit application;
- V. Submitting a construction approval application; and
- VI. Calculating the construction permit fee.

If you are unsure of whether you need a permit or an approval, you may submit the documents required for a construction approval. The application will be processed as an approval. If the Department determines that a permit is necessary, you will be notified and sent a fee calculation form. Processing of your application cannot proceed until the permit fee has been submitted.

Sources which meet applicability standards described in K.A.R. 28-19-500 are required to submit an operating permit application. Construction permits approve the construction, installation or modification of proposed sources of air emissions. Operating permits establish conditions for continued operation. If the facility requires an operating permit, simultaneous processing of the construction and operating permits is possible, but not required.

I. WHO NEEDS A CONSTRUCTION PERMIT

[These requirements can be found at K.A.R. 28-19-300(a).]

A permit to construct or modify* an air emission source is required if:

1. The potential-to-emit of the proposed source or the increase in the potential-to-emit due to the modification equals or exceeds:
 - a. 100 tons per year of particulate matter for an agricultural-related activity;
 - b. 25 tons per year of particulate matter or 15 tons per year of PM₁₀ for any activity which is not an agricultural-related activity;
 - c. 40 tons per year of sulfur dioxide (SO₂) or sulfur trioxide (SO₃), or a combination thereof; volatile organic compounds; or oxides of nitrogen (NO_x);
 - d. 100 tons per year of carbon monoxide;
 - e. 0.6 tons per year of lead; or
 - f. 10 tons per year of any single hazardous air pollutant or 25 tons per year of a combination of hazardous air pollutants. (The hazardous air pollutants are listed at K.A.R. 28-19-7(gg).);
2. The emissions unit or stationary source is an affected source which includes one or more affected units subject to emission reduction requirements or limitations under Title IV, Acid Deposition Control, of the Federal Clean Air Act;
3. The emissions unit or stationary source is an incinerator used to dispose of refuse by burning or pyrolysis or used for the processing of salvageable materials, except incinerators installed on residential premises that contain less than six dwelling units and that are used to burn waste materials associated with normal habitation of those dwelling units.

II. WHO NEEDS A CONSTRUCTION APPROVAL

[These requirements can be found at K.A.R. 28-19-300(b).]

An approval to construct or modify* an air emission source is required for certain sources not required to obtain a construction permit if:

1. The potential-to-emit of the proposed source or the increase in the potential-to-emit due to the modification equals or exceeds:
 - a. 5 pounds per hour of particulate matter or, in the case of a non-agricultural related activity, 2 pounds per hour of PM₁₀;
 - b. 2 pounds per hour of sulfur dioxide (SO₂) or sulfur trioxide (SO₃), or a combination thereof;
 - c. 50 pounds per 24 hour period of carbon monoxide, oxides of nitrogen calculated as nitrogen dioxide, or volatile organic compounds (except in Wyandotte and Johnson Counties, approval is necessary if volatile organic compound emissions equal or exceed either 15 pounds per 24 hour period or 3 pounds per hour);
 - d. 0.1 pound per hour of lead or lead compounds;
2. The source is subject to a new source performance standard (except new residential wood heaters), national emission standard for hazardous air pollutants (except asbestos demolition and renovation) or to a hazardous air pollutant standard or emission limitation.

III. CALCULATING POTENTIAL-TO-EMIT (PTE)

Contact KDHE for additional guidance if you are unfamiliar with or have questions pertaining to the procedure for calculating potential-to-emit.

Potential-to-emit is determined by estimating worst-case emissions for each pollutant of concern and calculating those emissions as if the source was continuously operating at maximum capacity.

For example, if, under maximum emission rate conditions, NO_x emissions from the source were determined to be 3 pounds per hour, the potential-to-emit of the source in tons per year would be determined by multiplying the hourly emission rate (3 pounds) times the number of hours in a year (8760) and divided by the number of pounds in a ton (2000), in which case the potential-to-emit of the source would be 13.14 tons per year.

$$\frac{\text{Maximum emission rate in pounds per hour} \times 8760 \text{ hours per year}}{2000 \text{ pounds / ton}} = \text{PTE in tons per year}$$

The only exception to this rule pertains to calculating the potential-to-emit for volatile organic compound (VOC) emissions from surface coating operations (spray-painting, for example) and printing presses. In these cases, the potential-to-emit for VOC emissions can be calculated by dividing total actual (or proposed) annual usage of VOCs (in pounds) by the actual (or proposed) hours of operation during the annual period, multiplying the quotient by 8760 hours per year and dividing the product by 2000 pounds per ton.

$$\frac{\text{Actual, annual VOC used (pounds)}}{\text{Annual hours of operation}} = \text{pounds of VOC used per hour}$$

$$\frac{\text{Pounds of VOC used per hour} \times 8760 \text{ hours per year}}{2000 \text{ pounds / ton}} = \text{PTE in tons per year}$$

VI. CALCULATING THE CONSTRUCTION PERMIT APPLICATION FEE

[These requirements are found at K.A.R. 28-19-304(b).]

Calculate the construction permit application fee as follows:

Estimated capital cost of the proposed activity for which the application is made, including the total cost of equipment and services to be capitalized. Line 1 \$ _____

Multiply by .05% (.0005) x _____ .0005

Total Line 2 \$ _____

If Line 2 is greater than \$4,000, enter \$4,000 on Line 3.
If Line 2 is less than \$100, enter \$100 on Line 3.
Otherwise, copy Line 2 to Line 3.

Construction permit application fee. Line 3 \$ _____

(Print)

Certifier of Capital Cost

(Signature)

Date

K.A.R. 28-19-17 is a complex regulation pertaining to prevention of significant deterioration (PSD). An additional fee of \$1,500 will be required if a PSD review is necessary. If you believe the proposed activity in this Notification of Construction or Modification will be subject to the requirements of K.A.R. 28-19-17, contact the Department for further evaluation.

- * For purposes of construction permit or approval applications, the following are not considered modifications:
1. Routine maintenance or parts replacement.
 2. An increase or decrease in operating hours or production rates if:
 - a. production rate increases do not exceed the originally approved design capacity of the stationary source or emissions unit; and
 - b. the increased potential-to-emit resulting from the change in operating hours or production rates do not exceed any emission or operating limitations imposed as a permit condition.