

30 TAC 111 - Rule Interpretation Memos

- ! [Procedure for determining allowable TSP emission rate for a source/process with multiple stacks](#) [July 22, 1997]
- ! [Determination if petroleum coke is considered a solid fossil fuel under Chapter 111 and 112](#) [March 24, 1998]
- ! [Procedures to determine "Effective Stack Height"](#) [May 19, 1998]

Last Modified: December 10, 1998

Rule Interpretation Summary Form

REQUEST:

Rule/Regulation Citation(s):	Federal Rule: <input type="checkbox"/> State Regulation: <input checked="" type="checkbox"/>
30 TAC 111, § 111.151	Description: Emissions Limits on Nonagricultural Processes Allowable Emissions Limits
Interpretation Request:	
Under Title 30 Texas Administrative Code (TAC), § 111.151, how does one determine the allowable total suspended particulate (TSP) emission rate(s) for a fired source, such as a process heater, having multiple stacks?	

DETERMINATION:

Summary of Request:
ERM Southwest, Inc. requested guidance for determining allowable TSP emission rate(s) under § 111.151 for a fired source/process having multiple stacks.
Determination:
<p>Under § 111.151, for a source with multiple stacks, allowable TSP emission rates are determined using the following procedure:</p> <p>Step 1. Set initial allowable TSP emission rates for each stack (stack allowable) by considering each stack individually and separately using the standard procedures for calculating effective stack height and standard effective stack height. Make any necessary adjustments for cases where the effective stack height is below the standard effective stack height. This step will ensure that each stack considered on its own will achieve reasonable dispersion.</p> <p>Step 2. Sum the stack allowables determined in Step 1 above and compare this sum to the allowable emission rate based on total source flow rate. If the sum of the stack allowables is greater than the source allowable based on the total source flow rate, go to Step 3. If the sum of the stack allowables is less than or equal to the allowable based on the total source flow rate, then the final allowable for each stack is the value determined in Step 1 and the final allowable for the source is the sum of the stack allowables obtained in Step 1.</p> <p>Step 3. If the sum of the stack allowables is greater than the source allowable based on total source flow rate, the stack allowable for each stack must be further adjusted (i.e., reduced). The adjustment to each stack allowable must be done so that the sum of the stack allowables does not exceed the source allowable based on the total flow rate. This can be done by multiplying each stack allowable by the source allowable based on the total flow and then dividing by the sum of the stack allowables obtained in Step 1.</p>

Rule Interpretation Summary Form

REQUEST:

Rule/Regulation Citation(s):	Federal Rule: <u> </u> State Regulation: <u> X </u>
30 TAC Chapter 111, § 111.153(c) 30 TAC Chapter 112, § 112.8	Description: Subchapter A: Visible Emissions and Particulate Matter - Air Emissions Limits on Nonagricultural Processes Control of Sulfur Dioxide

DETERMINATION:

Interpretation Request:
Determine if petroleum coke is considered a solid fossil fuel under Title 30 Texas Administrative Code Chapter 111 and Chapter 112 (30 TAC Chapters 111 and 112).
Determination:
Petroleum coke is considered to be a solid fossil fuel. Therefore facilities which use petroleum coke as a fuel in solid fossil fuel-fired steam generators are subject to the requirements of § 111.153(b) and § 112.8.

Bibliography:

Current Chapter 111 rules; Effective date, September 16, 1996

Current Chapter 112 rules: Effective date, July 16, 1997

Current 40 Code of Federal Regulations Part 60; July 1, 1996

Current 40 Code of Federal Regulation Part 72; July 1, 1996

Evaluation of Testimony of Public Hearings held February 1 and 2, 1989 for proposed changes to Chapter 111; Effective date of these proposed changes is July 18, 1989.

Evaluation of Testimony of Public Hearings held May 21 and 22, 1992 for proposed changes to Chapter 112; Effective date of these proposed changes is October 23, 1992

Hearing Records for proposed rule for Chapter 112; Effective date March 5, 1972

Hearing Records for proposed rule for Chapter 111; Effective date, March 5, 1972

Do the Acid Rain SO₂ Regulations Apply to You? A Guide for Utilities and Other Electricity Generators; EPA 430-R-94-002

EPA Office of Compliance Sector Notebook Project; Profile of the Petroleum Refining Industry; September 1995; EPA 310-R-95-013

Petroleum Products Handbook; McGraw-Hill Book Company; first edition, 1960

The Condensed Chemical Dictionary; Van Nostrand Reinhold Company; tenth edition

EPA Determination Index for NSPS Subpart D, Subpart Da, Subpart Db, and Subpart Dc

Energy Dictionary; Van Nostrand Reinhold Company; 1979

Encyclopedia of Energy; McGraw-Hill Inc.; 1976

Rule Interpretation Summary Form

REQUEST:

Rule/Regulation Citation(s):	Federal Rule: <input type="checkbox"/> State Regulation: <input checked="" type="checkbox"/>
30 TAC Chapter 111 § 111.151	Description: Emissions Limits on Nonagricultural Processes: Allowable Emissions Limits

DETERMINATION:

Interpretation Request:
Under 30 TAC § 111.151, how is the “effective stack height” determined for stacks having a horizontal or angled discharge, or stacks having a cap which impedes the vertical motion of the plume?
Determination:
<p>The “effective stack height” equation specified in § 111.151(c) is only suitable for unobstructed, vertical stacks. The following modified procedures are necessary to determine “effective stack height” for certain other stack configurations:</p> <ol style="list-style-type: none"> 1. For horizontal stacks, the effective stack height is the physical stack height above ground level. 2. For angled stacks, the effective stack height equation in § 111.151(c) is applied, but only the <u>vertical component</u> of the exit velocity, as determined by trigonometry and stack orientation, is used in the equation. 3. For stacks equipped with a “cap” or other device which impedes or obstructs vertical motion of the plume, the effective stack height is the physical release height of the emissions above ground level.

Bibliography:

Previous State Interpretations of 30 TAC Chapter 111

U.S. Environmental Protection Agency Publication:

Guideline for Determination of Good Engineering Practice Stack Height

Texas Air Control Board document: *Air Quality Modeling Guidelines*

Air Dispersion Modeling Team, New Source Review, memo dated 09/29/97: “Modeling Emissions from Tilted Stacks”

Air Pollution Control: A Design Approach, C. Cooper and F.C. Alley

Perry’s *Chemical Engineers’ Handbook*, Sixth Edition