R307. Environmental Quality, Air Quality. R307-410. Permits: Emissions Impact Analysis. R307-410-1. Purpose.

This rule establishes the procedures and requirements for evaluating the emissions impact of new or modified sources that require an approval order under R307-401 to ensure that the source will not interfere with the attainment or maintenance of any NAAQS. The rule also establishes the procedures and requirements for evaluating the emissions impact of hazardous air pollutants. The rule also establishes the procedures for establishing an emission rate based on the good engineering practice stack height as required by 40 CFR 51.118.

KEY: air poliution, modeling, hazardous air poliutant, stack height

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104

R307. Environmental Quality, Air Quality. R307-410. Permits: Emissions Impact Analysis. R307-410-2. Definitions.

(1) The following a dditional d efinitions ap ply to R307-410.

"Vertically Restricted Emissions Release" means the release of an air contaminant through a stack or opening whose flow is directed in a downward or horizontal direction due to the alignment of the opening or a physical obstruction placed beyond the opening, or at a height which is less than 1.3 times the height of an adjacent building or structure, as measured from ground level.

"Vertically Unrestricted Emissions Release" means the release of an air contaminant through a stack or opening whose flow is directed upward without any physical obstruction placed beyond the opening, and at a height which is at least 1.3 times the height of an adjacent building or structure, as measured from ground level.

- (2) Except as provided in (3) below, the definitions of "stack", "stack in existence", "dispersion technique", "good engineering practice (GEP) stack height", "nearby", "excessive concentration", and "intermittent control system (ICS)" in 40 CFR 51.100(ff) through (kk) and (nn) are hereby incorporated by reference.
- (3)(a) The terms "reviewing authority" and "authority administering the State implementation plan" shall mean the director.
- (b) The reference to "40 CFR parts 51 and 52" in 40 CFR 51.100(ii)(2)(i) shall be changed to "R307-401, R307-403 and R307-405".
- (c) The phrase "For sources subject to the prevention of significant deterioration program (40 CFR 51.166 and 52.21)" in 40 CFR 51.100(kk)(1) shall be replaced with the phrase "For sources subject to R307-401, R307-403, or R307-405".

KEY: air pollution, modeling, hazardous air pollutant, stack height

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R307. Environmental Quality, Air Quality. R307-410. Permits: Emissions Impact Analysis.

R307-410-3. Use of Dispersion Models.

All estimates of ambient concentrations derived in meeting the requirements of R307 shall be based on appropriate air quality models, data bases, and other requirements specified in 40 CFR Part 51, Appendix W, (Guideline on Air Quality Models), effective July 1, 2005, which is hereby incorporated by reference. Where an air quality model specified in the Guideline on Air Quality Models or other EPA approved guidance documents is inappropriate, the executive secretary may authorize the modification of the model or substitution of another model. In meeting the requirements of federal law, any modification or substitution will be made only with the written approval of the Administrator, EPA.

KEY: air pollution, modeling, hazardous air pollutant, stack height

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104

R307. Environmental Quality, Air Quality. R307-410. Permits: Emissions Impact Analysis.

R307-410-4. Modeling of Criteria Pollutant Impacts in Attainment Areas.

Prior to receiving an approval order under R307-401, a new source in an attainment area with a total controlled emission rate per pollutant greater than or equal to amounts specified in Table 1, or a modification to an existing source located in an attainment area which increases the total controlled emission rate per pollutant of the source in an amount greater than or equal to those specified in Table 1, shall conduct air quality modeling, as identified in R307-410-3, to estimate the impact of the new or modified source on air quality unless previously performed air quality modeling for the source indicates that the addition of the proposed emissions increase would not violate a National Ambient Air Quality Standard, as determined by the Executive Secretary.

TABLE 1	
POLLUTANT	EMISSIONS
sulfur dioxide	40 tons per year
oxides of nitrogen	40 tons per year
PM10 - fugitive emissions	5 tons per year
and fugitive dust	
PM10 - non-fugitive emissions	15 tons per year
or non-fugitive dust	
carbon monoxide	100 tons per year
lead	0.6 tons per year

KEY: air pollution, modeling, hazardous air pollutant, stack height

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104

R307. Environmental Quality, Air Quality. R307-410. Permits: Emissions Impact Analysis. R307-410-6. Stack Heights and Dispersion Techniques.

- (1) The degree of emission limitation required of any source for control of any air contaminant to include determinations made under R307-401, R307-403 and R307-405, must not be affected by so much of any source's stack height that exceeds good engineering practice or by any other dispersion technique except as provided in (2) below. This does not restrict, in any manner, the actual stack height of any source.
 - (2) The provisions in R307-410-6 shall not apply to:
- (a) stack heights in existence, or dispersion techniques implemented on or before December 31, 1970, except where pollutants are being emitted from such stacks or using such dispersion techniques by sources which were constructed or reconstructed, or for which major modifications were carried out after December 31, 1970; or
- (b) coal-fired steam electric generating units subject to the provisions of Section 118 of the Clean Air Act, which commenced operation before July 1, 1957, and whose stacks were constructed under a construction contract awarded before February 8, 1974.
- (3) The director may require the source owner or operator to provide a demonstration that the source stack height meets good engineering practice as required by R307-410-6. The director shall notify the public of the availability of the demonstration as part of the public notice process required by R307-401-7, Pubic Notice.

KEY: air pollution, modeling, hazardous air pollutant, stack height

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