

10.0 Adequacy Determination for CAA Section 110(a)(1) and (2) Program Infrastructure

Through this chapter, CTDEP documents the State's program infrastructure elements under CAA Section 110(a)(1) and (2). Except as noted below, the original submission of Connecticut's SIP on March 3, 1972 and numerous subsequent SIP revisions identified in Table 10-1 adequately fulfill the fourteen required CAA Section 110(a)(1) and (2) infrastructure elements.¹

In addition to the information set out in Table 10-1, and consistent with CTDEP's commitments in Chapter 11 of this demonstration, CTDEP intends to update its program infrastructure with respect to its new source review permit program. CTDEP will, as of July 15, 2008, implement the provisions of 40 CFR 51 Appendix S for PM_{2.5} in Fairfield and New Haven counties. The requirements of Appendix S will be addressed in a SIP revision, which CTDEP will seek to submit by May 16, 2011. That SIP revision will also update Connecticut's air quality regulations to incorporate definitions, permit program requirements and other necessary references to PM_{2.5} and will constitute the remaining element of Connecticut's infrastructure requirements.

¹ The fourteen required infrastructure elements are described in an October 2, 2007 guidance memo from William Harnett, Director of EPA's Air Quality Policy Division, which is available in Appendix 10A to this demonstration.

Table 10-1. Overview of How Connecticut’s State Implementation Plan Satisfies the CAA Section 110(a)(1) and (2) Program Infrastructure Elements for PM_{2.5}*

CAA Section	Required CAA Element	Corresponding Connecticut Program Element(s)
110(a)(2)(A) Emission limits and other control measures	... “include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance...”	<p>CGS Section 22a-6(a)(1). The Commissioner is empowered to “adopt, amend or repeal . . . such environmental standards, criteria, and regulations . . . as are necessary and proper to carry out his functions, powers and duties.” It is under this grant of authority that the Commissioner has adopted emissions standards and compliance schedules applicable to municipal waste combustors.</p> <p>CGS Section 22a-174g. California motor vehicle emission standards.</p> <p>CGS Section 22a-174. Powers of the Commissioner. Regulations. Fees. General Permits</p> <p>CGS Section 22a-174(f). Control of open burning.</p> <p>CGS Section 22a-174k. Outdoor wood-burning furnaces.</p> <p>The sections of the air quality regulations (which may be amended from time to time) with specific emissions limits related to the control of PM_{2.5} and PM_{2.5} precursors include RCSA:</p> <ul style="list-style-type: none"> 22a-174-3a(i) Ambient air quality analysis 22a-174-3a(j) BACT 22a-174-3a(k) PSD 22a-174-3a(l) Non-attainment areas, LAER 22a-174-18 Control of particulate matter and visible emissions 22a-174-19 Control of sulfur compound emissions 22a-174-19a Control of sulfur compound emissions from power plants 22a-174-22 NOx emissions (<i>also included in many single source SIP revisions</i>) 22a-174-22b NOx budget program 22a-174-22c CAIR NOx ozone season trading program

* CAA refers to the Clean Air Act
 CGS refers to the Connecticut General Statutes
 RCSA refers to Regulations of CT State Agencies
 CFR refers to the U.S. Code of Federal Regulations
 CTDEP refers to the Connecticut Department of Environmental Protection

CAA Section	Required CAA Element	Corresponding Connecticut Program Element(s)
		<p>22a-174-27 Periodic motor vehicle inspection and maintenance 22a-174-20 Control of organic compound emissions 22a-174-30 Gasoline vapor recovery 22a-174-32 VOC RACT (<i>also included in many single source SIP revisions</i>) 22a-174-36 Low emission vehicles 22a-174-36a Heavy-duty diesel engines 22a-174-36b Low emission vehicles II program 22a-174-38 Municipal waste combustors. 22a-174-40 Consumer products (<i>submitted with the 8-hr ozone attainment demonstration</i>) 22a-174-41 AIM coatings (<i>submitted with the 8-hr ozone attainment demonstration</i>) 22a-174-43 Portable fuel containers (<i>submitted with the 8-hr ozone attainment demonstration</i>) 22a-174-44 Adhesives and sealants (<i>adoption in process</i>)</p>
<p>110(a)(2)(B) Ambient air quality monitoring/data system</p>	<p>... “provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to (i) monitor, compile, and analyze data on ambient air quality, and (ii) upon request, make such data available to the Administrator.”</p>	<p>40 CFR 53; 40 CFR 58. . A comprehensive air quality monitoring plan, intended to meet requirements of 40 CFR 58, is submitted to EPA each year. The 2008 Annual Air Monitoring Network Plan was submitted on June 30, 2008.</p>
<p>110(a)(2)(C) Program for enforcement of control measures</p>	<p>... “include a program to provide for the enforcement of the measures described in subparagraph (A), and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D;”</p>	<p>CGS Section 22a-6(a)(5). The commissioner may, in accordance with constitutional limitations, enter at all reasonable times, without liability, upon any public or private property, except a private residence, for the purpose of inspection and investigation to ascertain possible violations of any statute, regulation, order or permit administered, adopted or issued by him and the owner, managing agent or occupant of any such property shall permit such entry . . . CGS Section 22a-6b. Imposition of civil penalties by the commissioner. CGS Section 22a-7(d). Civil actions. CGS Section 22a-171. “The commissioner shall . . . (4) adopt, amend, repeal and enforce regulations . . . and do any other act necessary to enforce the provisions of [Chapter 446c, entitled “Air Pollution Control,” which</p>

CAA Section	Required CAA Element	Corresponding Connecticut Program Element(s)
		<p>encompasses CGS Sections 22a-170 through 22a-206].”</p> <p>CGS Section 22a-174. Orders to correct violations.</p> <p>CGS Section 22a-175. Penalties for violations.</p> <p>CGS Section 22a-176. Consideration in making regulations and issuing orders.</p> <p>CGS Section 22a-177. Enforcement of regulations. Complaints.</p> <p>CGS Section 22a-178. Orders to correct violations.</p> <p>RCSA section 22a-3a-6(c). Orders, rulings and decisions – procedures in contested cases.</p> <p>RCSA section 22a-174-3a. Permit to construct and operate stationary sources. This section provides a permit program for enforceable emission limits and control measures.</p> <p>RCSA section 22a-174-12. Violations and enforcement of the Regulations of Connecticut State Agencies. This section provides that “The Commissioner shall designate employees of DEP to be known as enforcement personnel, who shall, acting with or without complaints, conduct investigations and ascertain whether the Commissioner's regulations are being complied with.”</p> <p>NSR Stringency Determination submitted to EPA-Region 1, December 29, 2005.</p>
<p>110(a)(2)(D) Interstate transport</p>	<p>... “contain adequate provisions - (i) prohibiting, consistent with the provisions of this title, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will - (I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard, or (II) interfere with measures required to be included in the applicable implementation plan for any other State under part C to prevent significant deterioration of air quality or to protect visibility, (ii) insuring compliance with the applicable requirements of sections 126 and 115 (relating to interstate and international pollution abatement)”</p>	<p>Revision to the Connecticut State Implementation Plan --Addressing the Interstate Air Pollution Transport Requirements of Clean Air Act Section 110(a)(2)(D)(i), was submitted to EPA on March 13, 2007. EPA is proposing to approve this SIP revision submitted by CTDEP (72 Fed. Reg. 62420; November 5, 2007).</p> <p>NSR Stringency Determination submitted to EPA-Region 1, December 29, 2005.</p>

CAA Section	Required CAA Element	Corresponding Connecticut Program Element(s)
110(a)(2)(E) Adequate resources	<p>... “provide (i) necessary assurances that the State (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the State or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under State (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of Federal or State law from carrying out such implementation plan or portion thereof), (ii) requirements that the State comply with the requirements respecting State boards under section 128, and (iii) necessary assurances that, where the State has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the State has responsibility for ensuring adequate implementation of such plan provision;”</p>	<p>CGS Section 22a-171. Duties of Commissioner of Environmental Protection. “The commissioner shall (1) initiate and supervise programs for the purposes of determining the causes, effect and hazards of air pollution; (2) initiate and supervise state-wide programs of air pollution control education; (3) cooperate with and receive money from the federal government and, with the approval of the Governor, from any other public or private source; (4) adopt, amend, repeal and enforce regulations as provided in section 22a-174 and do any other act necessary to enforce the provisions of this chapter and section 14-164c; (5) advise and consult with agencies of the United States, agencies of the state, political subdivisions and industries and any other affected groups in furtherance of the purposes of this chapter.”</p> <p>Air Quality Implementation Plan, Chapter 11, Parts A-E (March 3, 1972). Describes the (A) existing organizations; (B) manpower; (C) funding; (D) physical resources and (E) local agencies. It stated, in part, “The Department of Environmental Protection will secure appropriations sufficient, in conjunction with federal assistance, to maintain the projected state funding levels.”</p> <p><i>CTDEP is the sole authority implementing the SIP and does not rely on local or regional governments or agencies to carry out this responsibility.</i></p>
110(a)(2)(F) Stationary source emissions monitoring and reporting	<p>... “require, as may be prescribed by the Administrator - (i) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources, (ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and (iii) correlation of such reports by the State agency with any emission limitations or standards established pursuant to this Act,</p>	<p>CGS Section 22a-6(a)(5). “The commissioner may, in accordance with constitutional limitations, enter at all reasonable times, without liability, upon any public or private property, except a private residence, for the purpose of inspection and investigation to ascertain possible violations of any statute, regulation, order or permit administered, adopted or issued by him and the owner, managing agent or occupant of any such property shall permit such entry ...”</p> <p>CGS Section 22a-174(c). Various powers of the commissioner related to permitting, inspections, and recordkeeping.</p> <p>RCSA section 22a-174-4. Source monitoring, record keeping and reporting. Paragraph (d)(1) states: “The commissioner may, by written notice, require the owner or operator of any source to create, maintain and submit data, records or</p>

CAA Section	Required CAA Element	Corresponding Connecticut Program Element(s)
	which reports shall be available at reasonable times for public inspection;”	<p>reports of monitoring data and other information deemed necessary by the commissioner to evaluate compliance with chapter 446c of the Connecticut General Statutes and regulations promulgated thereunder. Such information shall be recorded, compiled and submitted on forms furnished or prescribed by the commissioner. The written notice shall provide the date by which such data, records or reports shall be submitted to the commissioner.”</p> <p>RCSA section 22a-174-5. Methods for sampling, emission testing, sample analysis, and reporting.</p> <p>(e)(1) states that “The owner or operator of a stationary source of air pollution with maximum uncontrolled emissions of any particular air pollutant greater than one hundred (100) tons per year shall be required to carry out emission tests as prescribed by the Commissioner. Such test or tests shall be conducted at such intervals as the Commissioner may specify for an individual stationary source.” Subsection (e)(2) states “In addition to the emission tests required in subdivision 22a-174-5(e)(1), the commissioner may require the owner or operator of any stationary source to conduct emission tests of emissions.”</p> <p>RCSA section 22a-174-10. Public availability of information. Paragraph (a) states: Any records, reports or other information obtained by the Commissioner or on file with the department shall, pursuant to the provisions of sections 1-7 through 20 of the General Statutes, as amended, be made available to the public.</p>
110(a)(2)(G) Emergency power	... “provide for authority comparable to that in section 303 and adequate contingency plans to implement such authority;”	<p>CGS Section 22a-181. Emergency action.</p> <p>RCSA section 22a-174-6. Air pollution emergency episode procedures. This section describes the existing emergency episode procedures in place, which are consistent with the significant harm levels as indicated in 40 CFR Part 51.151.</p> <p>Connecticut expects to be classified as a Priority III region, and, therefore, an emergency episode plan for PM_{2.5} is not required.²</p>

² See March 24, 2008 EPA guidance in Appendix 10A. See also, Harnett, W.T. 2007. *Guidance on SIP Elements Required under Sections 110(a)(1) and (2) for the 1997 8-hour Ozone and PM_{2.5} National Ambient Air Quality Standards*, which states:

“As an aid to the States in addressing the PM_{2.5} related requirements of Section 110(a)(2)(G) pertaining to emergency episode provisions, EPA intends to take action to revise 40 CFR, Part 51, subpart H (sections 51.150). The rule changes will establish the priority classifications which determine the emergency episode plan

CAA Section	Required CAA Element	Corresponding Connecticut Program Element(s)
110(a)(2)(H) Future SIP revisions	... “provide for revision of such plan - (i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and (ii) except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the national ambient air quality standard which it implements or to otherwise comply with any additional requirements established under this Act;”	Air Quality Implementation Plan, Chapter 13, (March 3, 1972). “This implementation plan is intended to be dynamic, not static. To this end, it will be revised when necessary.”
110(a)(2)(J) Consultation with government officials	... “meet the applicable requirements of section 121 (relating to consultation)	CGS Section 22a-171. Duties of Commissioner of Environmental Protection. “(5) advise and consult with agencies of the United States, agencies of the state, political subdivisions and industries and any other affected groups in furtherance of the purposes of this chapter.” CGS Section 22a-174(d). “The commissioner shall have all incidental powers to carry out the purposes of [Chapter 446c, entitled “Air Pollution Control,” which encompasses Conn. Gen. Stat. Sections 22a-170 through 22a-206] . . . CGS Chapter 54. Uniform Administrative Procedures Act. State Implementation Plan Revision Advisory Committee (SIPRAC) established in 1972 and generally meets each month.
110(a)(2)(J) Public notification	... “meet the applicable requirements of section 127 (relating to public notification),	CGS Section 4-168. Notice prior to action on regulations. CGS Section 22a-171. Duties of Commissioner of Environmental Protection. ...“(2) Initiate and supervise state-wide programs of air pollution control education;”

requirements for each area and establish a significant harm level (SHL) for PM_{2.5}. Until these changes are final, EPA recommends that States rely on relevant information contained in upcoming EPA rule proposals or other EPA issued interim guidance to satisfy the section 110(a)(2)(G) requirements for PM_{2.5}...”

CAA Section	Required CAA Element	Corresponding Connecticut Program Element(s)
		CGS Section 22a-174(d). “The commissioner shall have all incidental powers to carry out the purposes of [Chapter 446c, entitled “Air Pollution Control,” which encompasses Conn. Gen. Stat. Sections 22a-170 through 22a-206] . . .
110(a)(2)(J) PSD and visibility Protection	... “meet the applicable requirements of part C (relating to prevention of significant deterioration of air quality and visibility protection);”	RCSA section 22a-174-3a(k). Permit Requirements for Attainment Areas: Prevention of Significant Deterioration of Air Quality (PSD) Program. This section addresses the prevention of significant deterioration of air quality and visibility protection.
110(a)(2)(K) Air quality modeling/data	... “provide for - (i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and (ii) the submission, upon request, of data related to such air quality modeling to the Administrator;”	RCSA section 22a-174-3a(i). Ambient Air Quality Analysis: “The commissioner may request any owner or operator to submit an ambient air quality impact analysis using applicable air quality models and modeling protocols approved by the commissioner.” EPA PM_{2.5} NSR Rule: With respect to its NSR permit program, Connecticut will begin implementing 40 CFR 51 Appendix S for PM _{2.5} as of July 15, 2008 in Fairfield and New Haven counties.
110(a)(2)(L) Permitting fees	... “require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this Act, a fee sufficient to cover - (i) the reasonable costs of reviewing and acting upon any application for such a permit, and (ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action), until such fee requirement is superseded with respect to such sources by the Administrator's approval of a fee program under	CGS Section 22a-6(a)(10). The commissioner may . . . by regulations adopted in accordance with the provisions of chapter 54 require the payment of a fee sufficient to cover . . . the reasonable cost of reviewing and acting upon an application for and monitoring compliance with the terms and conditions of any state or federal permit, license, registration, order, certificate or approval required . . . CGS Section 22a-6f. Fees. CGS Section 22a-174(g). “The commissioner shall require, by regulations adopted in accordance with the provisions of chapter 54, the payment of a permit application fee sufficient to cover the reasonable costs of reviewing and acting upon an application for, and monitoring compliance with the terms and conditions of, any state or federal permit, license, order, certificate or approval required pursuant to this section. . . .” RCSA section 22a-174-26(c)(1). “Each person to whom the commissioner issues a permit, or a modification or renewal thereto, under section 22a-174-

CAA Section	Required CAA Element	Corresponding Connecticut Program Element(s)
	title V;”	<p>3a, section 22a-174-2a and section 22a-174-19 of the Regulations of Connecticut State Agencies shall pay a permit fee as prescribed in the fee schedule in subdivision (2) of this subsection.” The fee schedule is set forth in Table 26-1 of subsection 2.</p> <p>RCSA section 22a-174-33(j)(1)(Z). Requires Title V source to pay all fees due under RCSA section 22a-174-26. (Approved as satisfying 40 CFR 70.6(a)(7) in EPA’s Connecticut Title V operating permit program approval (67 FR 31966 (May 13, 2002)).</p>
110(a)(2)(M) Consultation/ participation by affected local entities	... “provide for consultation and participation by local political subdivisions affected by the plan.”	<p>CGS Section 4-168. Notice prior to action on regulations.</p> <p>Connecticut Air Quality Implementation Plan, Chapter 12 “Intergovernmental Relations” (March 3, 1972). “The State will take immediate action in coordinating and delegating new responsibilities to local agencies that are prepared to accept the responsibility.”</p>