

TITLE 42 > CHAPTER 77 > SUBCHAPTER III > Part A > § 6295
§ 6295. ENERGY CONSERVATION STANDARDS

(a) Purposes

The purposes of this section are to—

- (1) provide Federal energy conservation standards applicable to covered products; and
- (2) authorize the Secretary to prescribe amended or new energy conservation standards for each type (or class) of covered product.

[...]

(f) Standards for furnaces and boilers

(1) Furnaces (other than furnaces designed solely for installation in mobile homes) manufactured on or after January 1, 1992, shall have an annual fuel utilization efficiency of not less than 78 percent, except that—

(A) boilers (other than gas steam boilers) shall have an annual fuel utilization efficiency of not less than 80 percent and gas steam boilers shall have an annual fuel utilization efficiency of not less than 75 percent; and

(B) the Secretary shall prescribe a final rule not later than January 1, 1989, establishing an energy conservation standard—

(i) which is for furnaces (other than furnaces designed solely for installation in mobile homes) having an input of less than 45,000 Btu per hour and manufactured on or after January 1, 1992;

(ii) which provides that the annual fuel utilization efficiency of such furnaces shall be a specific percent which is not less than 71 percent and not more than 78 percent; and

(iii) which the Secretary determines is not likely to result in a significant shift from gas heating to electric resistance heating with respect to either residential construction or furnace replacement.

(2) Furnaces which are designed solely for installation in mobile homes and which are manufactured on or after September 1, 1990, shall have an annual fuel utilization efficiency of not less than 75 percent.

(3) Boilers.—

(A) In general.— Subject to subparagraphs (B) and (C), boilers manufactured on or after September 1, 2012, shall meet the following requirements:

Boiler Type	Minimum Annual Fuel Utilization Efficiency	Design Requirements
Gas Hot Water	82%	No Constant Burning Pilot, Automatic Means for Adjusting Water Temperature
Gas Steam	80%	No Constant Burning Pilot
Oil Hot Water	84%	Automatic Means for Adjusting Temperature
Oil Steam	82%	None
Electric Hot Water	None	Automatic Means for Adjusting Temperature
Electric Steam	None	None

Air Quality

Highway Sanctions

Status of Sanction Clocks under the Clean Air Act **Updated 1/30/12**

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Automatic Sanctions

Section 179 of the Clean Air Act (42 USC 7509) requires automatic sanctions when:

- EPA finds that a State has failed to submit a required SIP or revision
- EPA disapproves a required SIP or revision
- EPA finds that a requirement of an approved SIP is not being implemented

Sanctions must be applied unless the deficiency is corrected within 18 months after the finding or disapproval. Highway sanctions are used for purposes of enforcing deadlines for SIP submittals and the implementation of approved SIP measures or elements required under the CAA. Sanctions are intended to induce States to develop strategies to attain the air quality standards. There are two sanctions required by Section 179 (42 USC 7509) .

18 months after the finding or disapproval, the offset sanction is imposed. The offset sanction is related to the fact that owners of new or expanded stationary sources of a pollutant for which an area is in nonattainment must "offset" their increased emissions by reducing existing emissions by at least the amount of the increase. This requirement is related to air quality since it prevents economic development from increasing emissions in areas that are already violating the air quality standards. In areas that are not sanctioned, offsets are required on a sliding scale from 1.1 to 1 in cleaner nonattainment areas to 1.5 to 1 in the dirtier nonattainment areas. However, offset sanction requires new or expanded stationary sources to reduce emissions by 2 tons for every 1 ton of emission growth. Because offsets are expensive and difficult to obtain, this is a very serious penalty.

If the deficiency is not corrected within 6 months of the imposition of the offset sanction, highway sanctions are imposed. The highway sanction is a prohibition on Federal funds for transportation projects within an area, except for certain safety, transit, and air quality beneficial projects. This sanction could be air quality related in an area that is nonattainment for transportation related pollutants, but is intended primarily as an economic incentive to SIP submission. Therefore, highway sanctions could be imposed even when the SIP deficiency is not transportation related. Sanctions apply for all types of nonattainment areas, including those without transportation-related pollutant problems.

These automatic sanctions imposed under Section 179 (42 USC 7509) apply only in nonattainment areas. They do not apply in attainment or maintenance areas. EPA does have the option, under Section 110(m) (42 USC 7410) of the Clean Air Act, to apply discretionary sanctions more widely.

Discretionary Sanctions

Section 110(m) (42 USC 7410) of the Clean Air Act allows EPA to apply sanctions at any time, or any time after, making a finding, disapproval, or determination that some CAA provision has not been met, and also allows those sanctions to be applied to any portion of a State that EPA finds reasonable to ensure that CAA requirements are met. The only restriction is that EPA may not apply sanctions statewide for two years when a political subdivision is responsible for the failure to comply with the law. After two years, EPA can sanction an entire State for the failing of a single city, and it can sanction at any time a whole state for the failure of a state agency or entity, such as the State legislature.

The imposition of statewide sanctions is subject to notice and comment in the Federal Register.

FHWA Sanction Exemption Criteria

On March 11, 1996 the FHWA released a guidance document entitled "FHWA Sanction Exemption Criteria" and this memo defines the exemption criteria that will be used to determine which projects can go forward and which grants may be awarded in the event EPA imposes highway sanctions under Section 179(b) (42 USC 7509) or Section 110(m) (42 USC 7410) of the Clean Air Act. The policy information identifies which categories of highway projects are exempt from highway sanctions, such as safety, environmentally-beneficial, and planning and research activities funded under Title 23 of United States Code (Federal-aid Highway Program). The EPA and DOT have agreed that additional programs such as TCMs in EPA-approved SIPs, inspection and maintenance facilities, bicycle and pedestrian facilities, carpool/vanpool programs, and conversion of existing lanes for HOV use during peak periods are also categorically exempt during EPA highway sanctions. Additional information may be obtained via the guidance memorandum which was published in the Federal Register on April 1, 1996 (61 FR14363).

Programs and Projects Subject to Highway Sanctions

Highway sanctions, when applied, halt the approval of projects and the award of any grants funded under Title 23, United States Code, except as for those types of projects, such as safety projects, that are defined in the Clean Air Act. This applies to the following major funding programs:

1. Surface Transportation Program (STP)
2. National Highway System (NHS)
3. Interstate Maintenance Program
4. Highway Bridge Replacement and Rehabilitation Program
5. Congestion Mitigation and Air Quality Improvement Program (CMAQ)

Projects funded under all other Title 23 programs and other authorizations are also subject to sanctions, including High Priority Projects identified by Congress. Projects funded under Title 49, U.S.C. chapter 53, the Federal Transit Act, as amended, are categorically exempt from sanctions by law as are other transportation programs authorized by statutes other than Title 23.

The following types of projects generally do not meet the exemption criteria of the Clean Air Act and would be subject to highway sanctions. These include projects that expand highway capacity, nonexempt project development activities, and any other project that does not explicitly meet exemption criteria. These may include activities for:

1. The addition of general purpose through lanes to existing roads.
2. New highway facilities on new locations.
3. New interchanges on existing highways.
4. Improvements to, or reconfiguration of existing interchanges.
5. Additions of new access points to the existing road network.
6. Increasing functional capacity of the facility.
7. Relocating existing highway facilities.
8. Repaving or resurfacing except for safety purposes, as defined by section 179(b) (42 USC 7509) .
9. Project development activities, including NEPA documentation and preliminary engineering, right-of-way purchase, equipment purchase, and construction solely for non-exempt projects.
10. Transportation enhancement activities associated with the rehabilitation and operation of historic transportation buildings, structures, or facilities not categorically exempted.

Programs and Projects Exempt from Highway Sanctions

Under section 179(b)(1) of the CAA (42 USC 7509) , once EPA imposes highway sanctions, the Federal Highway Administration may not approve or award any grants in the sanctioned area except those that are specifically exempted. These exempted projects fall under three categories:

1. Safety programs and projects
2. Seven congressionally-authorized activities
3. Air quality improvement projects that would not encourage single occupancy vehicle (SOV) capacity

Safety Programs and Projects

Safety projects are those for which the principal purpose is an improvement in safety but the projects may also have other important benefits. These projects must resolve a demonstrated safety problem with the likely result being a significant reduction in or avoidance of accidents as determined by the FHWA. Such demonstration must be supported by accident or other data submitted by the State or appropriate local government. Examples of

projects generally exempt from highway sanctions include Emergency Relief (ER) projects, statewide safety improvement programs, and programs administered by NHTSA.

Justification for an exemption on the grounds of safety must be based on accident or other data. Projects exempted under the safety provision may not involve substantial functional (such as upgrading major arterial to freeways), locational, or capacity changes except when the safety problem could not otherwise be solved.

Congressionally Authorized Activities

Seven project types are identified specifically in the CAA section as exempt from highway sanctions. They include:

1. Capital programs for public transit
2. Construction or restriction of certain roads or lanes solely for the use of passenger buses or High Occupancy Vehicles (HOV) 24-hours a day.
3. Planning for requirements for employers to reduce employee work-trip related vehicle emissions.
4. Highway ramp metering, traffic signalization, and related programs that improve traffic flow and achieve a new emission reduction.
5. Fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit operations.
6. Programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration, particularly during periods of peak use, through road use charges, tolls, parking surcharges, or other pricing mechanisms, vehicle restricted zones or periods, or vehicle registration programs.
7. Programs for breakdown and accident scene management, non-recurring congestion, and vehicle information systems, to reduce congestion and emissions.

Air Quality Improvement Programs That Do Not Encourage Single Occupant Vehicle Capacity

Transportation programs not otherwise exempt that improve air quality and which would not encourage SOV capacity (as determined by EPA in consultation with DOT) are also exempt from highway sanctions.

The EPA and DOT have agreed that the following projects will be categorically exempt from highway sanctions, and will not require additional EPA review or an individual finding by EPA:

1. The transportation control measures (TCMs) contained in an EPA-approved SIP which will not encourage SOV capacity.
2. Inspection and maintenance facilities and activities eligible for CMAQ funding.
3. Bicycle and pedestrian facilities and programs.
4. Carpool/Vanpool programs.
5. Conversion of existing lanes for HOV use during peak hour periods.

Projects That Have Virtually No Air Quality Impact and Provide Other Environmental or Aesthetic Benefits

The following projects are likely to have virtually no environmental impacts, provide other aesthetic benefits, do not promote SOV capacity, and are, therefore considered exempt from highway sanctions:

1. Wetland Mitigation.
2. Planting Trees, Shrubs, Wildflowers.
3. Landscaping.
4. Purchase of Scenic Easements.
5. Billboard and Other Sign Removal.
6. Historic Preservation.
7. Transportation Enhancement Activities (except rehabilitation and operation of historic transportation buildings, structures, or facilities).
8. Noise Abatement.

Planning and Research Activities

Planning and research activities for transportation and/or air quality purposes are exempt from highway sanctions. Such planning and research is critical for the development of projects that improve safety and address an area's transportation/air quality needs.

Project Development Activities

Development and completion of studies to meet requirements under NEPA are exempt from highway sanctions as long as consideration of projects that would be exempt under this policy memorandum, such as transit or other Transportation Demand Management (TDM) measures, are actively pursued as reasonable independent alternatives. Once all alternatives that could be considered exempt from highway sanctions under this policy memorandum are eliminated, project development activities for NEPA or other purposes are no longer exempt and can no longer be approved or funded under Title 23. For example, if prior to completion of NEPA documentation, all TDM measures are eliminated from consideration and the sole remaining question is the determination of an alignment for a highway capacity-expanding project (which may include TDM), subsequent project development activities are not exempt from highway sanctions.

The FHWA may not approve preliminary engineering for final design of a project, nor can approval be granted for a project's plans, specifications, and estimates after initiation of highway sanctions for projects that are not exempt from sanctions. Neither right-of-way nor any necessary equipment may be purchased or leased with Federal funds for nonexempt projects while an area is under sanction. Federally-funded construction may not in any way begin on a project that is not exempt while an area is under sanction.

What is the Difference Between Sanctions and a Conformity Lapse?

There are two separate legislative requirements for conformity and sanctions under the CAA. The above sections discuss the sanctions provisions.

The conformity provisions of the of the CAA require that the MPO and the U.S. DOT determine the conformity of transportation plans and transportation improvement programs (TIPs) with State air quality plans. A conformity lapse results from the failure to establish conformity within required time frames or the failure to meet emissions budgets or to pass one of the conformity tests. Unlike sanctions, a conformity lapse occurs immediately, if the requirements are not met. When a conformity lapse occurs, only limited types of projects can proceed. And, unlike highways sanctions, conformity lapses affect transit capacity projects and regionally significant non-Federal projects.

For more information regarding transportation conformity, please visit our [conformity website](#).

Other References:

- Clean Air Act Section 179 (42 USC 7509) - [Sanctions and Consequences of Failure to Attain](#)
- [Clean Air Act Section 110\(m\) \(42 USC 7410\)](#)
- EPA Regulations on Sanctions ([40 CFR Chapter 1 '52.30 - 52.32](#))

For More Information

For additional information regarding sanctions please contact Cecilia Ho, FHWA Office of Natural and Human Environment at (202) 366-9862 or cecilia.ho@dot.gov, or see additional [contacts](#).