



An Overview of

Federal Air Quality Legislation As Related to Federally-Assisted Highway and Transit Programs

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Introduction

Since the time that man first acquainted himself with fire, the anthropogenic production and release of smoke into our planet's atmosphere at an ever-accelerating rate has become a reality. The gaseous compounds, liquid droplets, and various solid particles contained in smoke in concentrations higher than natural level are typically referred to as air pollutants. The fact that 3 miles thick of troposphere enclosed over the Earth often can not dilute and disperse all air pollutants to levels that are acceptable to the well being of humans, animals, and plants is troubling. It is clear that the vast amount of air is not an unlimited dumping pool for human activities has become evident to all of us with the events of various air quality related human disasters and tragedies. During the last century, the following three episodes are well noted. The Meuse Valley, Belgium air episode of 1930 killed more than 60 people and sickened over 600 (Firket, 1931). The Donora, PA air episode between October 26 and 31, 1948, killed 20 people and sickened over 7000 people (Gammage, 1998). The Great December Smog of London in 1952 resulted in over 4000 human deaths (Met-Office, 2003). Because of these episodes, government authorities implemented legislation

and regulation relating to the release of air pollutants into the atmosphere. Over the last 100 years, regulations ranging from chimney heights, fuel types and fuel sources, to the most modern emission and fuel standards have been implemented. Current regulations in the U.S. not only control most emission sources, such as power plants, automobiles, et al., but also affect programs and facilities that support combustion and emission sources. One of the affected programs is the Federally funded highway program through the U.S. Environmental Protection Agency's transportation conformity regulation. Highways on their own do not emit or produce any air pollutants. However, when automobiles operating on such highways emit more than a budgeted amount of air pollutant, Federal funding for the highway program is restricted. Transportation projects may face delays in Federal approval.

This paper is intended to provide an overview of the U.S. Federal legislation in air quality as related to Federally assisted highway and transit program development. By knowing the past and understanding the present, more efficient and effective programs for the future can be established and implemented.

The Pre-1955 Era

Prior to 1955, there was no Federal legislation as related to air quality in the U.S. In the absence of Federal regulations, State and local governments enacted various laws dealing with the ever-challenging air pollution issue due to industrialization and establishment of large permanent human communities. Chicago and Cincinnati established smoke control ordinances in 1881 (CEQ, 1970). Philadelphia, in 1904, passed an ordinance to regulate emission of smoke from chimneys, stacks, flues or open spaces. The ordinance prescribed specific methods for smoke inspection. It established authority to impose a penalty for violation of the ordinance (Air Management Service, 2003). In 1947, the State of California enacted the Air Pollution Control Act that authorized the creation of Air Pollution Control Districts (APCD) in every county of the State (ARB, 2003). The current South Coast Air Quality Management District

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How Our Laws and Regulations Are Made

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Our federal laws are originated in the Legislative branch. However, all three government branches are involved in the establishment and implementation of our laws.

The Legislative branch, which is composed of the House of Representatives and Senate, makes laws by sponsoring and passing bills. Upon the President's signature, these bills become public laws. The newly enacted laws are then published annually in a chronological order in the US Statutes at Large. Most significant laws are also in the United States Code.

The Executive branch, composed of various agencies and departments/councils, implements laws. Rules made by the Executive branches are commonly known as regulations. These rules are published in chronological order in the Federal Register on a daily basis. The regulations are then published in the Code of Federal Regulations, according to subject area, on an annual basis.

The Judiciary branch's function is to interpret laws and regulations. During court proceedings, the court makes decisions and issues opinions. Once a federal appellate court issues an opinion or decision, the district court in that circuit must follow the opinion issued. Once the Supreme Court issues an opinion or decision, all courts must follow that opinion. The Supreme Court publishes its decisions and opinions in the U.S. Reports. Opinions and decisions issued by appellate courts are published in the Federal Reporters. The US District Courts publish their decisions in the Federal Supplement.

For further information, readers are encouraged to consult the following information websites: 1) "Enactment of A Law." By R. B. Dove at; <http://thomas.loc.gov/home/enactment/enactlawtoc.html>; 2) "How Our Laws Are Made." By C. W. Johnson at <http://thomas.loc.gov/home/holam.txt>; 3) "Introduction to Laws and Regulations." By US EPA at <http://www.epa.gov/epahome/lawintro.htm>; and 4) "Judicial Branch" at: <http://www.whitehouse.gov/government/text/judg.html>.

Selected Legal Terminologies

The following terminologies are quoted directly from the United States District Court for the District of Idaho at: <http://www.id.uscourts.gov/glossary.htm> on March 10, 2003.

Affirmed - In the practice of appellate courts, the word means that the decision of the trial court is correct.

Appeal - A proceeding brought to a higher court to review a lower court decision.

Appellate court - A court having jurisdiction to hear appeals and review a trial court's procedure.

Brief - A written argument by counsel arguing a case, which contains a summary of the facts of the case, pertinent laws, and an argument of how the law applies to the fact situation. Also called a memorandum of law.

Case law - Law established by previous decisions of appellate courts, particularly the United States Supreme Court.

Cases - General term for an action, cause, suit, or controversy, at law or in equity; questions contested before a court of justice.

Common law - Law established by subject matter heard in earlier cases.

Consent - Agreement; voluntary acceptance of the wish of another.

Dismissal - The termination of a lawsuit.

Hearing - A formal proceeding (generally less formal than a trial) with definite issues of law or of fact to be heard. Hearings are used extensively by legislative and administrative agencies.

Moot - A moot case or a moot point is one not subject to a judicial determination because it involves an abstract question or a pretended controversy that has not yet actually arisen or has already passed. Mootness usually refers

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(SCAQMD) is the product of consolidation of the 1947 Los Angeles County APCD and three other APCDs.

From combustion of coal meeting the demand of power during the mid-18th century Industrial Revolution to the exploration and proliferation of the petroleum industry during World War II and after, air pollutant emissions in the U.S. experienced a steady increase until the early 1970s (EPA, 2000). Although the photochemical mechanism which is responsible for the most pervasive air pollution problem known as smog was discovered in the late 1940s (Haagen-Smit, 1952; Haagen-Smit & Fox, 1954), the control of air pollution issues crossing political boundaries and borders is still half a century away.

The Air Pollution Control Act of 1955: The First Federal Involvement

In 1955, the first Federal legislation related to air quality was signed into law (Public Law 84-159) by President Eisenhower. The Air Pollution Control Act of 1955 by no means established any control or regulatory measures. It simply acknowledged the existence of air pollution problems and authorized the Secretary of Health, Education and Welfare to conduct research to better understand the causes and effects of air pollution and provide technical assistance to State and local government agencies. This Federal legislation granted \$5 million annually for five years to fund Federal research. During the legislative process, great concerns over the involvement of Federal government into the then believed local issues were expressed (Krier and Ursin, 1977). Consequently, the 1955 act specifically stated that air pollution control was primarily a responsibility of State and local government agencies. The 1955 act was amended in 1961 to continue Federal research funding for four more years.

In 1962, under President Kennedy, another amendment to the 1955 act was passed. In addition to all principles contained in the 1955 act, the 1962 amendment called for research to be performed by the U.S. Surgeon General on health effects from motor vehicle exhaust. This was the first time that health effects related to air quality were investigated by a Federal agency.

The Clean Air Act of 1963: Role Change

As requested by President Kennedy, Congress passed the Clean Air Act in 1963 (Public Law 88-206). This was the first time that the term "clean air" was used in Federal air legislation. Under the 1963 act, a grant in the amount of \$96 million over a three-year period was estab-

lished for State and local government agencies to conduct research and local control programs. To have non-federal agencies participating in research marked a major shift from the 1955 act, which only authorized Federal agencies to be the recipient of research funds. In addition to broadening the recipients of research funds, the 1963 act also granted Federal authority to address interstate air pollution issues, which was mainly due to the combustion of high sulfur content coal and oil at the time.

The next piece of major air legislation was in the form of an amendment to the Clean Air Act of 1963. In 1965, for the first time, emission standards were established for new motor vehicles by the enactment of the Motor Vehicle Pollution Control Act. In addition to the establishment of vehicle emission standards, the 1965 act for the first time also acknowledged the air pollution issues and health threats at our borders with both Mexico and Canada.

The 1967 Air Quality Act Amendment provided a fundamental change in the role of Federal government in air quality control. By now lawmakers realized that research by Federal agencies was not a substitute for regulation. The Federal government had a duty and right to establish and enforce air quality rules. The 1967 amendment required the Secretary of the Department of Health, Education, and Welfare to divide part of the nation into Air Quality Control Regions in order to facilitate planning, monitoring, and controlling. The 1967 amendment also established emission standards for stationary sources and expanded research activities. The era of Federal air regulation and enforcement began with the enactment of the 1967 amendment.

The Clean Air Act of 1970: Federalization

By the late 1960s, the environmental movement in the country was in high gear. Under President Nixon, Congress in 1969 passed the National Environmental Policy Act (NEPA). Less than one year after the NEPA passage, the U.S. Environmental Protection Agency (EPA) was established by Presidential Executive Order in 1970. The newly established EPA consolidated all environmental regulatory functions located in various executive departments and agencies.

On the air quality side, since the enactment of the 1967 Clean Air Act, progress was slow (Esposito & Silverman, 1970). In response to public outcry, Congress passed the Clean Air Act Amendments in 1970 (Public Law 91-604). The 1970 amendments were a complete rewrite of the 1967 act. The 1970 amendments required the newly created EPA to set the National Ambient Air Quality Standards (NAAQS) to protect public health and welfare,

New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants. The 1970 amendments required various States to submit State Implementation Plans (SIP) for attaining and maintaining the NAAQS. The amendments also authorized private citizens to sue polluters or government agencies for failure to carry out provisions of the Act.

The 1970 act was enacted in the midst of the environmental enthusiasm throughout the nation. It required that by 1975 all areas would attain clean air status. Carbon monoxide and hydrocarbon emission from automobiles would be reduced 90% from the 1970 level by 1975; and nitrogen oxide emissions from automobiles would achieve a 90% reduction from 1971 levels by 1976.

The same year Congress passed the 1970 Clean Air Act, the 1970 Federal-Aid Highway Act (FHA) was enacted as well. The 1970 FHA incorporated certain requirements relating to environmental quality. Full consideration of economic, social, and environmental impacts of highway projects would be assessed according to the 1970 FHA. With air quality, the 1970 FHA added section 109(j) to Title 23 of the U.S. Code. Section 109(j) stated that "The Secretary, after consultation with the Administrator of the Environmental Protection Agency, shall develop and promulgate guidelines to assure that highways constructed pursuant to this title are consistent with any approved plan for - (1) the implementation of a national ambient air quality standard for each pollutant for which an area is designated as a nonattainment area under section 107(d) of the Clean Air Act; or (2) the maintenance of a national ambient air quality standard in an area that was designated as a nonattainment area but that was later redesignated by the Administrator as an attainment area for the standard and that is required to develop a maintenance plan under section 175A of the Clean Air Act." For the first time in history, the need for highway projects to be consistent with SIPs developed under the 1970 Clean Air Act was legally required.

In 1974, in response to the Arab oil embargo and a desire to achieve energy independence, Congress passed the Energy Supply and Environmental Coordination Act (ESEC). The 1974 ESEC loosened some of the 1970 act requirements due to their effects on energy efficiency. The ESEC also pushed back the deadline for compliance with new vehicle emission standards specified in the 1970 act due to technology availability.

As required in the 1970 FHA, regulations related to consistency development between transportation plans/programs/projects and SIPs were issued by U.S. DOT in 1975.

The Clean Air Act Amendments of 1977 was a significant piece of legislation regarding air quality. The 1977

amendments required EPA to review and update the NAAQS at five-year intervals. Under the Prevention of Significant Deterioration (PSD) subpart, the ambient air pollutant concentration in Class I area was virtually allowed no increase at all.

For non-attainment areas, the 1977 acts authorized several provisions with respect to the NAAQS. One of the key concepts was the emission offset for stationary sources. By using the emission offset concept, new sources could be established by simultaneous reduction of the existing sources.

The 1977 acts stated that no Federal agency could engage in, support in any way or provide financial assistance for, license, or permit, or approve an activity that did not conform to a SIP that had been approved or promulgated, but did not further define "conformity." Although the "conformity" concept was developed in the CAA, more progress was needed with regard to the implementation goal of the conformity regulation. For further detailed analysis, readers are encouraged to consult the article titled "Challenges and Opportunities for Transportation Implementation of the Clean Air Act Amendments of 1990 and the Intermodal Surface Transportation Efficiency Act of 1991" (Shrouds, 1995).

The Clean Air Act Amendments of 1990: Latest

The next air quality legislation after the 1977 amendments was the passage of the Acid Precipitation Act of 1980 under President Carter. For the next ten years, no significant Federal air quality legislation was enacted until the modern air quality bill "The Clean Air Act Amendments of 1990" (Public Law 101-549) was passed under President Bush.

The 1990 CAA Amendments were a substantial rewrite of the 1970 Act. The 1990 CAAA granted significantly more authority to the Federal government than any other air quality legislation. With nine titles, subjects ranging from smog, motor vehicle emissions, and toxic air pollution to acid rain were considered. To address the smog issue, deadlines were established in areas according to five severity classifications ranging from marginal and moderate to serious, severe, and extreme. New regulatory programs and permitting were granted in order to control acid rain. New and stricter emission standards for motor vehicles were also established beginning with the 1995 model year. The National Emission Standards for Hazardous Air Pollutants program was also authorized to expand to much broader industries and activities.

To attain the NAAQS, as in the past, the State was still primarily responsible for developing the SIP that outlined methodologies and programs, and demonstrated

attainment through air quality modeling. On issues related to air quality and transportation projects, the 1990 CAAA Title I, Part D, Subpart 1, Section 176 (c) "Limitations on Certain Federal Assurances" expanded an earlier provision in 1977 CAA Amendments known as the "conformity requirement". Section 176(c) stated that "No department, agency, or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity which does not conform to an implementation plan after it has been approved or promulgated under Section 110. No metropolitan planning organization designated under Section 134 of Title 23, United States Code, shall give its approval to any project, program, or plan which does not conform to an implementation plan approved or promulgated under Section 110." Further, it went on defining that "conformity to an implementation plan means-(a) conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards; and (b) that such activities will not - (i) cause or contribute to any new violation of any standard in any area;(ii) increase the frequency or severity of any existing violations of any standards in any area; (iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area." The statutory breadth of "Federal involvement in any activity" language is the same as the one adopted in the 1969 National Environmental Policy Act. It has reflected our nation's commitments and desires to improve air quality.

The Conformity Front

The 1990 CAAA directed the EPA, with the concurrence of U.S. DOT, to develop specific procedures and methodologies in the transportation conformity regulation within one year of the enactment of the legislation. To ensure the deadline would not slip away or be delayed without any consequences, Section 176(c)(4)(A) stated that a suit could be brought against EPA and U.S. DOT to force the promulgation of the conformity rule.

Six months after the enactment of the 1990 CAAA, EPA and U.S. DOT issued a joint interim conformity guidance. In this temporary document, two emission tests related to volatile organic compound (VOC) and nitrogen oxides (NOx) for determining transportation conformity were prescribed. The first test was the so-called "build/no-build" test. With the "build/no-build" test, an area must demonstrate that the "build" scenario would not produce more emissions than the

"no-build" scenario for the analysis year. Under the second test known as "less than 1990", an area must demonstrate that total emissions after implementing all planned transportation programs was less than the base year (1990) inventory. Unlike the quantitative tests prescribed for the VOC and NOx cases, qualitative assessment methods were prescribed for the PM10 (particulate matter having an aerodynamic diameter less than or equal to 10 micrometers) conformity analysis.

The "Interim" guidance was intended to be temporary. However, agencies and local MPOs were operating on this temporary guidance until late 1993. After a legal action brought by the Environmental Defense Fund (EDF) against EPA and the subsequent settlement with EDF, the final conformity regulation (58 Fed. Reg. 62188) was issued just before the end of 1993.

The 1993 conformity rule linked transportation planning to air quality through a series of concrete steps and procedures. The regulation is a comprehensive prescription for conformity assessment. It includes specific procedural requirements, performance standards, and consequences of not conforming.

Under this new final conformity regulation, a new method in addition to the "build/no-build" and "less than 1990" known as "budget test" was prescribed. With the "budget test" methodology, on road mobile source emissions are compared with the "amount" (budget) of emissions allocated to the on road mobile sources in the SIP. A transportation plan or program will only conform when emissions are less than or equal to the "budget". For PM10 areas, instead of the qualitative approach, new quantitative "build/no-build", "less than 1990", or "budget" tests are required.

Not meeting the conformity requirements, known as conformity "lapse", has serious consequences on the transportation plan and program as well as project approvals. Conformity "lapse" happens when a new conformity determination is not performed within three years, or there is no new determination within 18 months of an event that triggers the new determination.

During a "lapse," Federal approval for new transportation projects will stop. No new transportation plans, transportation improvement programs, or projects can be approved until revisions of either the SIP and/or the transportation plan and TIP are performed to allow a conformity determination. The only projects that can be advanced are those listed in the four exempt categories which are 1) safety, 2) certain mass transit projects, 3) air quality, and 4) others such as noise abatement.

Since the 1993 issuance of the final conformity rule, EPA has amended the rule several times. After its third amendment in 1997 (62 Fed. Reg. 43779), the

Environmental Defense Fund challenged Section 93.102(c) and several other provisions in court. Section 93.102 (c) known as the "grandfather" provision allowed projects without a current conforming transportation plan and transportation improvement program in non-attainment and maintenance areas to advance if these projects were part of a plan that had previously conformed and had completed the National Environmental Policy Act processes. On March 2, 1999, in the case of Environmental Defense Fund v. EPA, the U.S. Court of Appeals for the D.C. Circuit struck down portions of the amendment and prohibited the use of this "grandfathering" provision. *EDF v. EPA, et al.*, 167 F. 3rd 641 (D.C. Cir.1999). Because of the court's action, all project approvals based on the "grandfathering" provision were reconsidered.

In response to the ruling from the circuit court, EPA issued its "Memorandum: Conformity Guidance on Implementation of March 2, 1999 Conformity Court Decision" on May 14, 1999 (MacGregor, 1999). Within the same year, U.S. DOT issued 1) an interim guidance titled "Interim Guidance for the Implementation of the Circuit Court Decision Affecting Transportation Conformity" on March 31, 1999, 2) a supplemental guidance titled "Supplemental Guidance for the Implementation of the Circuit Court Decision Affecting Transportation Conformity" on May 7, 1999, 3) a supplemental additional guidance titled "Additional Supplemental Guidance for the Implementation of the Circuit Court Decision Affecting Transportation Conformity on June 18, 1999 (Wykle & Linton, 1999). The supplemental additional guidance stated "only those highway projects which have received approval of PS&Es [Plan, Specification, and Estimates], and transit projects that have received a FFGA [Full Funding Grant Agreement], or equivalent approvals, prior to the conformity lapse (or the March 2, 1999, decision whichever is later) may proceed during a conformity lapse." It went further and concluded "we [FHWA] cannot continue to fund active highway design and right of way acquisition projects (except for exempt activities) during a conformity lapse, regardless of whether or not these projects were approved before the conformity lapse, or court decision."

On February 7, 2002, after reviewing and examining the effectiveness of previous DOT guidance for implementing the Circuit Court decision, a new guidance titled "Revised Guidance for Implementing the March 1999 Circuit Court Decision Affecting Transportation Conformity" was issued by U.S. DOT (67 Fed Reg. 5882, 2003). According to this latest guidance, "all project phases during a conformity lapse" are allowed to reach completion. In addition

to the above guidance, on May 20, 2003, FHWA issued a memorandum clarifying transportation conformity requirements for FHWA/FTA projects requiring Environmental Impact Statements (Shrouds and Borinsky, 2003). According to the memorandum, "...when the final EIS does not document full compliance with the transportation conformity provisions, the conformity determination must be made prior to issuance of a ROD [Record of Decision]."

It is clear that transportation conformity failure has significant adverse impacts to the transportation plan/program and project approval. State Implementation Plan failures can also cause transportation conformity problems. A conformity "freeze" occurs because of EPA's disapproval of a submitted control strategy SIP without a protective finding. A protective finding is a finding by EPA that the submitted SIP from a State identifies enough control measures to achieve Rate of Progress or attainment requirements. However, the State must provide an enforceable written commitment and officially adopt all the control measures. The revised SIP must be resubmitted by the State to EPA for final approval. The consequences and penalties for a conformity "freeze" are that no new transportation plans or programs can be approved and no new projects can be added. The only projects that can be advanced are those from the first three years of the currently conforming plan.

One of the SIP failures is not being able to attain the NAAQS by statutory deadlines. This type of SIP failure would result in an area's "bump-up" to the next higher classification of non-attainment designation. After an area receives a higher classification ("bump up"), the area's attainment date would be extended. However, the area would be subjected to additional and stricter controls that are prescribed for the higher classification. The area would also be required to submit a new SIP to demonstrate attainment. Under the 1990 CAAA, a series of dates were established to attain the NAAQS for various ozone nonattainment designations. For marginal areas, the deadline was November 15, 1993; for moderate areas, it was November 16, 1996; for serious areas, it was November 15, 1999; for severe areas, it was either November 15, 2005 or November 15, 2007 depending on the degree of severity. For extreme designations, an area would need to attain the NAAQS by November 15, 2010.

On March 25, 1999, after assessing the complex ozone transport issue through the Ozone Transport Assessment Group (OTAG) and gaining some fundamental understanding of ozone transport, EPA made further interpretations of the 1990 CAAA Subpart 2's attainment dead line extension provision by issuing the "Extension of

Attainment Dates for Downwind Transport Areas" (64 Fed. Reg. 14441) notice.

Under the notice of "Extension of Attainment of Dates for Downwind Transport Areas," EPA approved attainment deadlines for several areas. In the case of extending Washington, D.C. metropolitan area's proposed SIP to attain the NAAQS by November 15, 2005 instead of the statutory deadline of November 15, 1999, the Sierra Club challenged EPA's approval of the SIP without "bumping up" D.C. area's ozone nonattainment designation from "serious" to "severe". On July 2, 2002, the Court of Appeals for the District of Columbia Circuit vacated EPA's approval of the revised D.C. area SIP. *Sierra Club v. EPA*, 294 F.3d 155 (D. C. Cir. 2002).

Following the D. C. Circuit ruling, on November 25, 2002, the Court of Appeals for the Seventh Circuit in St. Louis vacated EPA's rule to extend St Louis's attainment from November 16, 1996 to November 15, 2004 without "bumping up" the ozone designation from "moderate" to "serious". *Sierra Club v. EPA*, 311 F.3d 853 (7th Cir. 2002). On December 11, 2002, the Court of Appeals for the Fifth Circuit in New Orleans reversed EPA's action of granting an extension for Beaumont, TX for attaining the NAAQS from its original November 15, 1996 to the new November 15, 2007 without bumping up the designation from "moderate" to "serious". *Sierra Club v. EPA*, 314 F.3d 735 (5th Cir. 2002).

In light of the rulings from the 5th, 7th, and D.C. Circuits, on February 20, 2003, EPA filed a motion for voluntary vacatur of its extension of the attainment deadline date for the Atlanta nonattainment area and its approval of the Atlanta area SIP. Most recently on June 16, 2003, the 11th Circuit in the case of Southern Organizing Committee For Economic and Social Justice, Georgia Coalition for the People's Agenda v. EPA, ___ F.3d ___ (11th Cir. 2003), granted EPA's motion for the above voluntary vacatur.

It is clear by now that regardless of problems and issues associated with interstate ozone transport, local agencies are ultimately responsible to attain the NAAQS through the adoption of all reasonable available control measures (RACM).

For a detailed and comprehensive analysis of the conformity process, readers are encouraged to consult reports: "Challenges and Opportunities for Transportation Implementation of the Clean Air Act Amendments of 1990 and the Intermodal Surface Transportation Efficiency Act of 1991" (Shrouds, 1995), "Linking Transportation and Air Quality Planning" (Howitt and Moore, 1999). Also the report titled "Exhausting Options: Assessing SIP-Conformity Interactions" (Harrington, et al., 2003)

provides another review on conformity.

The Federal Highway Administration and the Federal Transit Administration are responsible to carry out the conformity determination for all surface transportation programs and projects. The website (<http://www.fhwa.dot.gov/environment/conform.htm>) maintained and operated by FHWA's Office of Natural and Human Environment provides comprehensive guidance and latest information for all conformity determination.

The 8-Hour Ozone and PM2.5 NAAQS

Mandated by the CAA to conduct periodic reviews on the NAAQS, on July 18, 1997, EPA promulgated the final 8-hour ozone and PM2.5 (particulate matter having an aerodynamic diameter less than or equal to 2.5 micrometers) NAAQS (62 Fed. Reg. 38652, 38856, 1997). Under the new 8-hour standard, if the 3-year average of the annual fourth highest daily maximum eight-hour ozone concentrations measured at each monitor within an area exceeds 0.08 ppm, the area will be designated as non-attainment. Under the existing 1-hour ozone standard, a nonattainment area is designated because the fourth highest daily maximum ozone level monitored during a three-year time period exceeds 0.12 ppm. With PM2.5 NAAQS, 15 mg/m³ and 65 mg/m³ are established for the annual average and 24-hour average, respectively.

As soon as the new revised NAAQS were published in the Federal Register, a suit was brought against EPA by the American Trucking Associations (ATA), Inc. in 1998. The U.S. Court of Appeals for the D.C. Circuit issued a four-part opinion on May 14 1999. *American Trucking Assns. Inc. v. EPA*, F.3d 1027, 1034-1040 (ATAI) aff'd, 195 F.3d.4 (D.C.Cir., 1999) (ATAII). Part I of the opinion stated that the "construction of the Clean Air Act on which EPA relied in promulgating the NAAQS at issues here effects an unconstitutional delegation of legislative power." In other words, the CAA delegated legislative power to EPA in contravention of the Constitution. Part II of the ruling pointed out that EPA should not consider cost in the establishment of the NAAQS. Part III rejected ATA's claim that CAA Subpart 2 precluded the EPA from revising the primary and secondary ozone NAAQS. However, the court held that EPA would not be able to enforce a revised primary ozone NAAQS; and part IV stated that EPA's choice of PM10 as the indicator for coarse matter was "arbitrary" and "capricious." At the same time, Part IV rejected ATA's claim that EPA must treat PM2.5 as a new pollutant.

EPA appealed the D.C. Circuit's ruling on the 8-hour ozone and PM2.5 NAAQS to the U.S. Supreme Court. On February 27, 2001, the U.S. Supreme Court issued its decision. *Whitman v. American Trucking Assns. Inc.*, 531 U.S. 457, 121 S.Ct.903(2001). In its decision, the Supreme Court rejected the industry's claim that cost should be considered in setting the NAAQS. On the issue of CAA delegated legislative power to EPA, the Supreme Court disagreed with the lower court and found that the limits imposed on EPA by Congress were consistent with other comparable statutory provisions. The Supreme Court struck down EPA's interpretation regarding the implementation (designation) of the revised NAAQS; and ruled against EPA's implementation approach and stated that EPA cannot ignore CAA Subpart 2 provisions.

The Supreme Court remanded the case back to the Court of Appeals to "dispose of any other preserved challenge to the NAAQS." On remand from the Supreme Court, on March 26, 2002, the Circuit Court upheld the new revised 8-hour ozone and PM2.5 NAAQS. *American Trucking Assns. Inc. v. EPA*, 288 F.3rd 943 (D.C. Cir. 2002). By now, the only issue related to the new revised NAAQS was the development of its implementation procedure by EPA.

While industry groups represented by the ATA challenged the legality of the new revised 8-hour NAAQS, environmental groups represented by the American Lung Association, Environmental Defense, Natural Resource Defense, Sierra Club, et al., on May 30, 2002, filed a 60-day notice of citizen's suit under the Clean Air Act against EPA for failing to implement the revised NAAQS on time. On November 13, 2002, EPA reached a settlement with the plaintiffs and logged a consent decree in the U.S. District Court for the District of Columbia. In the Consent Decree, EPA is obligated to sign a notice promulgating the 8-hour ozone NAAQS Attainment Status Designation by April 15, 2004 (D.C. District 2002).

On June 2, 2003, the "Proposed Rule to Implement the 8-Hour Ozone National Ambient Air Quality Standard" was published in the Federal Register (68 Fed. Reg. 32801, 2003). As described in EPA's fact sheet, the proposed rule prescribed "a roadmap or what areas need to do to meet the new standard." Although the proposed rule is not the promulgation of additional conformity rule, it stated that "conformity would not apply in 1-hour ozone standard maintenance areas after we revoke the 1-hour ozone standard."

EPA is planning to finalize the proposed rule

in December 2003. As part of the rule making process, public comments are sought. Readers can seek specific detailed information via EPA's website: <http://www.epa.gov/ttn/oarpg/t1/meta/m25366.html>.

Congestion Mitigation and Air Quality Improvement Program

Less than one year from the passage of the 1990 CAAA, when the Intermodal Surface Transportation Efficiency Act (ISTEA) was enacted by Congress in 1991, a separate program known as Congestion Mitigation and Air Quality (CMAQ) Improvement Program was created in response to the 1990 CAAA's call for meeting the Federal air quality standards. Under ISTEA, six billion dollars were reserved to fund transportation projects that would help states in meeting and maintaining the NAAQS. Projects eligible for CMAQ funding include all sixteen Transportation Control Measures (TCM) categories in the CAAA except the "program to encourage removal of pre-1980 vehicles." Programs such as Inspection/Maintenance and converting public fleet to cleaner fuel received great financial assistances from the CMAQ program and proved to be very effective measures in helping local agencies to achieve the NAAQS.

By the end of 1997, nearly one-quarter of the areas that failed to meet ozone NAAQS in 1990 had been reclassified as "attainment" by EPA (Parker, 1998). While many factors and programs contribute to the air quality improvement, the contribution from the CMAQ program was important. Recognizing CMAQ program popularity and contribution to maintain the NAAQS, Congress reauthorized the CMAQ program when the Transportation Equity Act for the 21st Century (TEA-21) was authorized in 1998. Under TEA-21, funding for the CMAQ program has increased over 30% as compared with the ISTEA level. In addition to ozone nonattainment and maintenance areas, eligibility of CMAQ funding is also extended to PM10 non-attainment and maintenance areas.

In April 1999, the Federal Highway Administration issued a specific guidance entitled "The Congestion Mitigation and Air Quality Program under the Transportation Equity Act for the 21st Century: Program Guidance" (FHWA, 1999). According to this guidance, the highest priority projects are TCMs committed in a SIP. While the CMAQ program is administered by the FHWA, both project selection and implementation are carried out

by metropolitan planning organizations and state departments of transportation.

Since the release of the 1999 guidance, a series of additional guidance and clarifications were issued. According to the memorandum titled "Eligibility of Transit Station Rehabilitation for CMAQ Funding" (Shrouds and Borinsky, 2003), CMAQ funding is restricted from capacity improvement project or capacity enhancement elements of a project. The key is "capacity" improvement. For diesel engine retrofit programs, the key for eligibility for CMAQ funds is that the truck with a heavy-duty diesel engine "would have to operate predominantly within or in close proximity to nonattainment or maintenance areas, and primarily benefit those areas" (Shrouds, 2003).

It has been over ten years since the inception of the CMAQ program. The FHWA maintains a wealth of information related to the program on its dedicated website <http://www.fhwa.dot.gov/environment/cmaqpgs/>. In addition to the FHWA website information, a detailed and in-depth analysis titled "The Congestion Mitigation and Air Quality Improvement Program: Assessing 10 Years of Experience" was provided by the Committee for the Evaluation of the Congestion and Air Quality Improvement Program sponsored by the Transportation Research Board (TRB, 2002).

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A Final Word:

The authors will continue to update rules and regulations as they are enacted. For the latest information, please reference the electronic print of this article via FHWA Resource Center website:
<http://www.fhwa.dot.gov/resourcecenter/teamairq.cfm>

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-Continued from page 2

to a court's refusal to consider a case because the issue involved has been resolved prior to the court's decision, leaving nothing that would be affected by the court's decision.

Motion - An application made to a court or judge which requests a ruling or order in favor of the applicant.

Opinion - A judge's written explanation of a decision of the court or of a majority of judges. A dissenting opinion disagrees with the majority opinion because of the reasoning and/or the principles of law on which the decision is based. A concurring opinion agrees with the decision of the court but offers further comment. (A per curiam opinion is an unsigned opinion "of the court.")

Oral argument - Presentation of a case before a court by spoken argument; usually with respect to a presentation of a case to an appellate court where a time limit might be set for oral argument.

Permanent injunction - A court order requiring that some action be taken, or that some party refrain from taking action. It differs from forms of temporary relief, such as a temporary restraining order or preliminary injunction.

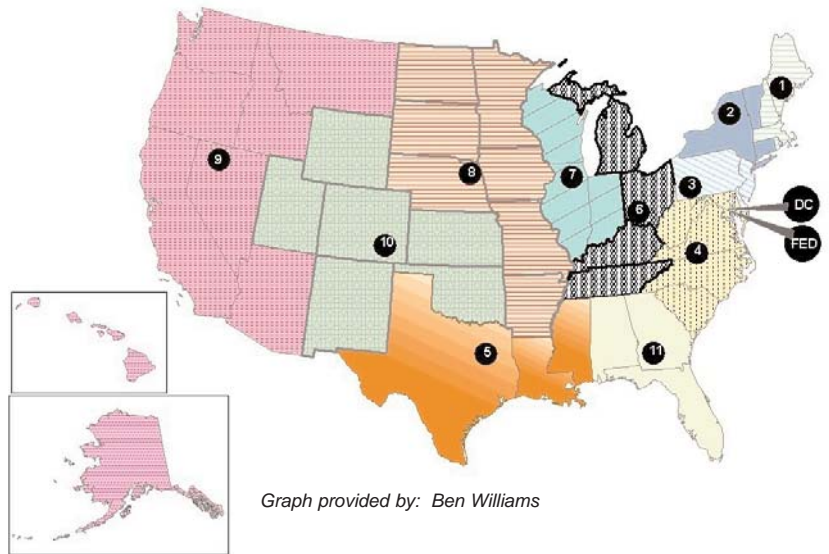
Remand - To send a dispute back to the court where it was originally heard. Usually it is an appellate court that remands a case for proceedings in the trial court consistent with the appellate court's ruling.

Remedy - Legal or judicial means by which a right or privilege is enforced or the violation of a right or privilege is prevented, redressed, or compensated.

Stay - A court order halting a judicial proceeding.

Summary judgment - A judgment given on the basis of pleadings, affidavits, and exhibits presented for the record without any need for a trial. It is used when there is no dispute as to the facts of the case and one party is entitled to a judgment as a matter of law.

US Federal Court System



The above court information is a recompile of data obtained from the following websites:

<http://www.uscourts.gov/outreach/structure.jpg>

<http://www.uscourts.gov/links.html>

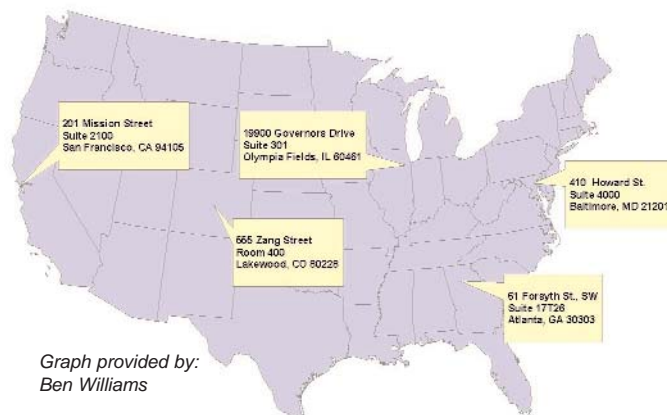
Federal Highway Administration, Resource Center

Air Quality Technical Service Team

<http://www.fhwa.dot.gov/resourcecenter/teamairq.cfm>

The Air Quality Technical Service Team is pleased to offer a variety of services to all federal, tribal, state and local governmental agencies on issues related to transportation air quality.

We offer assistances in areas of both policy implementation and technical practices. In addition to workshops and trainings we offer, seminars and special presentations to both policy makers and technical professionals are also provided.



Graph provided by:
Ben Williams

1: SIP 101

2: Conformity 101

3: MOBILE6 Basic

**4: MOBILE6 Advance
(Local Data Development)**

5: Dispersion Modeling (CAL3QHC)

6: Air Toxic

**7: Air Quality Issue as Related
to NEPA**

8: Travel and Mobile Data Integration

**9: Estimating Regional Mobile
Source Emissions (NHI)**

**10: Introduction to Transportation/
Air Quality Conformity (NHI)**

**11: The Implication of Air Quality
Planning for Transportation (NTI)**

12: CMAQ (NHI)

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