

## **CHAPTER 2: THE PURPOSES AND REQUIREMENTS OF TRANSPORTATION CONFORMITY**

### **LINKING TRANSPORTATION AND AIR QUALITY PLANNING: IMPLEMENTATION OF THE TRANSPORTATION CONFORMITY REGULATIONS IN 15 NONATTAINMENT AREAS**

**Arnold M. Howitt and Elizabeth M. Moore**

Taubman Center for State and Local Government  
John F. Kennedy School of Government  
Harvard University

March 1999

*A Report to the  
U.S. Environmental Protection Agency  
and the  
Federal Highway Administration,  
U.S. Department of Transportation*

Publication Number  
EPA420-R-99-011

## THE PURPOSES AND REQUIREMENTS OF TRANSPORTATION CONFORMITY

What is conformity intended to accomplish? By what regulatory mechanisms does it seek these objectives? This chapter sets the conformity process derived from the CAAA of 1990 in context by briefly examining the development of federal environmental controls on transportation planning and investment. It then examines the purposes of conformity and the broader climate of expectations that the regulations have engendered among stakeholders. Finally, the chapter examines in depth the specific requirements of conformity as laid out in the statute, the 1993 regulations, and subsequent amendments to those regulations.

### Policy Antecedents

Environmental advocacy groups were the leading proponents of the conformity provision of the Clean Air Act Amendments of 1990. Their efforts to see such a requirement included in the law stemmed to a great degree from their dissatisfaction with the effects of a series of previous federal regulatory initiatives. These initiatives, beginning in 1969, sought to assess the environmental effects of specific road-building proposals prior to allowing construction and, more generally, to promote transportation policies contributing to achievement of the nation's environmental goals. From the perspective of environmental advocates, these policies fell short of these objectives, leading the legislative architects of the CAAA of 1990 to craft stronger requirements.

The National Environmental Policy Act (NEPA) of 1969 created a regulatory tool – environmental impact analysis – to ensure that the potential environmental consequences of development projects, including road-building proposals, would be considered in decision making. From the environmental perspective, however, NEPA had two significant drawbacks. First, although it establishes procedural requirements for environmental analysis, the law did not provide substantive guidelines for determining which projects should proceed. Therefore, it did not prevent decision makers from moving ahead with projects that have adverse environmental impacts, as long as these were considered in the environmental analysis. Second, NEPA's project-by-project focus did not sufficiently address cumulative air quality effects – for example, how transportation projects would affect regional emissions of pollutants.

Environmentalists therefore sought a more systemic regulatory approach through successive iterations of the Clean Air Act. Early efforts to create strong links between air quality regulation and transportation planning, however, encountered many institutional problems and resistance. Until the CAAA of 1990, neither federal law nor the practices of metropolitan transportation planning provided clean air advocates and regulators with much leverage on highway or transit investments.

An initial, unsuccessful effort to connect

transportation investment policies to air quality regulation came in conjunction with the CAAA of 1970. In Section 109(j) of the Federal-Aid Highway Act of 1970, Congress required the Secretary of Transportation, in consultation with the Administrator of the Environmental Protection Agency, to issue regulations for the purpose of assuring that federally assisted highway projects would be “consistent” with the air quality plan for each pollution control area. The draft regulations became mired in disagreement between the federal agencies, however, and were not finally issued until 1975. They were extremely vague, moreover, on the crucial question of how consistency should be determined; and, to the disappointment of environmental advocates, they gave state transportation officials rather than environmental regulators the responsibility of making consistency determinations.

In most areas, EPA regional offices – politically beset, understaffed, and preoccupied with other responsibilities, including the need to develop the extremely controversial Transportation Control Plans of the early 1970s – made little effort to activate Section 109(j). Where they did, the effect was minimal. EPA’s particularly aggressive New England regional office, for example, was rebuffed by state transportation officials when it tried to claim a veto over Boston area transportation projects.<sup>1</sup> There as elsewhere, agency officials had very little training or

experience in the field of transportation. Nor were they tied into institutional and personal networks of transportation officials. This severely limited the agency’s capacity for information gathering, constructive discussion, formulation of policy alternatives, persuasion, and tactical flexibility in seeking its goals.

The 1977 CAAA contained stronger language. It prohibited metropolitan planning organizations (MPOs) from adopting a “project, program, or plan” that did not “conform” to the provisions of an approved State Implementation Plan, and it authorized the U.S. Secretary of Transportation to withhold federal highway aid upon a finding of non-conformity. FHWA was assigned responsibility to monitor compliance with the conformity requirement, in consultation with EPA. After extended negotiations, FHWA and EPA operationalized the conformity requirement in a 1978 Memo of Understanding which spelled out in general terms how consultation between transportation and air planners should occur and how the two planning processes should relate. As a practical matter, however, the conformity procedure specifically required only that states assure the timely implementation of transportation control measures they elected – at their own initiative – to include in their SIPs; and federal enforcement was weak. Consequently, the conformity requirement of the 1977 CAAA was a negligible factor in transportation investment decision making. The Secretary of Transportation never penalized a state financially for violating the conformity requirement, though environmental advocates occasionally used conformity as a litigation “hook,” most successfully to challenge transportation

---

<sup>1</sup>See Mark Garrett and Martin Wachs, *Transportation Planning on Trial: The Clean Air Act and Travel Forecasting* (Thousand Oaks, CA: Sage Publications, 1996) and Arnold M. Howitt, *Managing Federalism: Studies in Intergovernmental Relations* (Washington, D.C.: CQ Press, 1983).

planning methods in the San Francisco Bay area.<sup>2</sup>

## Purposes and Expectations

The CAAA of 1990, reinforced by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, required much tighter integration of regional air quality and transportation planning than its predecessor, most notably in its invigorated transportation conformity provisions. Ultimately, pollution reduction to meet national air quality standards and achieve the resulting public health benefits, were the primary goals of these provisions. But the statute – and the regulations promulgated by EPA to implement them – implied a broader set of purposes than this ultimate goal; and various stakeholder groups layered on additional expectations about how conformity would work and what it should accomplish. These extended purposes and expectations included:

- establishment of a procedural framework and incentives for analyzing transportation-related pollution,
- improvements in both transportation and air planning processes and establishment of tighter connections between them,
- improvements in public deliberation about and decisions on transportation and air quality issues, and
- advancement of certain additional elements of the environmental advocacy agenda.

Therefore, before examining the detailed conformity requirements, it is worthwhile to discuss these goals and expectations further. Each suggests a different lens through which to view and evaluate the conformity process, as it has actually been implemented in the 15 study sites. This report will examine conformity impacts in light of this set of purposes and expectations.

### ***Pollution Reduction and Public Health***

First and foremost, the conformity process is intended to ensure that a nonattainment (or maintenance) area will keep transportation-related emissions within the bounds needed to bring the state into compliance with (or maintain) the national ambient air quality standards – and thus to advance the public health goals of the Clean Air Act. Conformity requires forecasting regional and (for certain pollutants) localized emissions from transportation. These projections, in turn, are used to determine whether expected future pollution levels jeopardize the timely achievement of the federal standards. If so, conformity provides leverage to prevent the use of federal funds for these investments.

### ***A Procedural Framework and Incentives***

Conformity is also intended to create a procedural framework and organizational incentives so that the public agencies respectively responsible for transportation and air quality policies will carefully analyze trans-

---

<sup>2</sup>See Garrett and Wachs (1996).

portation-related pollution. When problems are perceived, conformity is supposed to motivate these agencies to take steps to reduce pollution, as needed, to achieve the federal standards within the deadlines of the Clean Air Act.

Procedurally, conformity relies on a *performance measurement* system, *consultation requirements*, and stiff *penalties* for failing to satisfy conformity conditions. MPOs conduct computer simulations of transportation demand, forecast the resultant emissions of controlled pollutants, and then compare the projected pollution to the permissible levels in the state implementation plan. The conformity regulations also require interagency collaboration both to frame these analyses and seek solutions to any problems revealed. It is expected that compliance will be motivated by the desire either to achieve pollution-reduction goals or to avoid interruptions in adopting or implementing transportation plans and programs. Participating agencies therefore will be inclined to develop transportation plans and programs that can pass the conformity tests or find ways to modify transportation or air quality plans to do so.

The procedural framework and incentives are expected to operate on federal agencies no less than their counterparts at the state and regional levels. US DOT and EPA field staff oversee and evaluate the technical analyses, in consultation with each other and their counterparts, to assure that federal funds are not released to finance transportation programs that undermine state efforts to comply with Clean Air Act requirements.

### ***Improving the Planning Process***

A key purpose of conformity is to upgrade the quality of both air and transportation planning and to forge strong links between these previously autonomous planning systems. On one side, conformity compels transportation agencies to make air quality a key planning factor – a criterion that is an integral part of policy assessment and that constrains emergent decisions about transportation investments. It also seeks to give air agencies a far stronger voice in the transportation planning process. On the other side, by giving transportation agencies a serious stake in air planning, conformity seeks to motivate their close involvement in developing state plans to reduce pollution.

Better integration of transportation and air quality planning over successive planning cycles, it was hoped, would improve the results of each process. As new air quality plans were developed, for example, policy makers would be motivated to re-examine mobile source emission budgets in light of the area's conformity experience to make sure that intersectoral priorities for pollution reduction were appropriate.

Part of the thrust of conformity is to enhance the analytic tools applied to transportation and air planning. To improve data and technical methods, the conformity regulations set standards for transportation demand and emission modeling, require compilation of current data, and specify how system performance must be measured. As important as these technical processes are in the conformity process, however, the mandated interagency

consultation process lies at the heart of aspirations to improve the planning system.

Effective interagency consultation is regarded as a way to assure that more and better quality information is brought to bear on transportation and air planning and to perfect the modeling and analytic capabilities of the MPO and other agencies. It also encourages mutual understanding of stakeholder values and viewpoints, promotes debate about policy alternatives, and forces the agencies to confront policy tradeoffs. In short, improving the planning process means more coordination, better deliberation, and a sharper focus on the major dimensions of choice.

### ***Public Deliberation and Decision Making***

Some stakeholders hoped that by improving planning processes, conformity would contribute to solving a major problem that arose under previous versions of the Clean Air Act – the failure to engage high level officials and the general public in serious discussion about the causal connections between transportation and air pollution and the policies that could reduce transportation emissions. Although not stated directly in the statute or regulations, some observers regarded this outcome as a logical consequence of the conformity process. By gathering information, engaging agencies in dialogue about transportation and air quality issues, and forcing them to confront conflicts between transportation plans and pollution reduction commitments, conformity would raise the public profile of these issues. Citizens would learn more about the issues,

and elected and senior policy officials would be compelled to address them.

### ***Advancing the Environmental Advocacy Agenda***

Beyond the pollution reduction goals of the Clean Air Act, many environmental advocates had firm expectations that conformity would help promote specific elements of their transportation policy agenda – purposes not necessarily shared by other conformity stakeholders. The environmentalists had long sought a regulatory lever to influence transportation planning and investment policies, particularly to discourage the financing of increased highway capacity and boost mass transit availability and convenience. Many environmentalists argue that highway capacity expansion, by improving access and reducing travel times to outlying regions of the metropolitan area, are a major cause of urban sprawl and the increasing spatial separation of jobs, residences, and shopping. In turn, they believe, low density development increases the number and length of auto trips, decreases auto occupancy rates, and diminishes the practicality of pedestrian and transit trip making. Similarly, they argue that road-building to alleviate congestion in densely developed corridors induces additional travel, since there is invariably a great deal of latent travel demand in such areas, suppressed mainly by the existing congestion. In part, this is a case for controlling air pollution. Additional auto travel, they believe, generally means more pollution (though congestion relief may temporarily reduce emissions per vehicle mile). But concerns about highway capacity also

connect to a broader environmental policy agenda than air quality – preserving open space and agricultural lands, maintaining pedestrian- and transit-friendly patterns of settlement, and conserving energy.

Consequently, many environmentalists expected that conformity, by seeking to control air pollution, would also support a transportation agenda with more sweeping purposes. These included sharp limits on new road capacity, increased investments in transit service, incentives for individuals to reduce their reliance on single-occupancy vehicles, and land use regulation policies to promote development patterns that required less travel.

## Conformity Requirements

How is this complex set of purposes – and the broader expectations they engender – embodied in the specific requirements of the CAAA of 1990 and the transportation conformity regulations? As noted, the core of the conformity process are procedures intended to ensure that a state does not undertake federally funded or approved transportation projects, programs, or plans that are inconsistent with the state's obligation to meet and maintain the NAAQS. This is accomplished by first using transportation demand models and mobile source emission models to make a 20-year forecast of emissions from the transportation system, taking account of changing demographics, land uses, economic development, federally mandated improvements in auto emission systems, new transportation infrastructure and services. The predicted levels of emissions in several milestone years are then compared with the maximum emissions

permissible under applicable SIPs. Thus, a conforming transportation project, program, or plan is one that:

- does not cause or contribute to any new air quality violation,
- does not increase the frequency or severity of any existing air quality violation, and
- does not delay timely attainment of air quality standards or interim emission reduction milestones.<sup>3</sup>

In the statute, Congress outlined a general set of requirements for determining conformity. MPOs must show that expected emissions from the transportation system are within the mobile source emission budgets in applicable state implementation plans (SIPs). Transportation programs must also provide for timely implementation of any transportation control measure a state has included in approved SIPs. Projects must come from a conforming plan/program and must not have changed significantly in design concept or scope. In making conformity determinations, MPOs must use emissions projections based on the most recent population, employment, travel and congestion estimates.

To flesh out the specific procedures and analytic techniques to be used within this framework, Congress required EPA to promulgate federal regulations one year from the statute's enactment (i.e., by November 1991).

---

<sup>3</sup>Clean Air Act Amendments of 1990, Public Law No. 101-549, 104 Stat. 2399 (1990), codified as amended at 42 U.S.C.A. §§ 7401 et seq. (West, 1995). The Transportation Conformity provision is found in § 176 (§ 7506) of the statute.

At a minimum, these regulations were to address consultation procedures by which state and regional agencies would confer in making conformity determinations, the frequency of conformity determinations, and the procedures for determining conformity in nonattainment and maintenance areas. One year later (i.e., by November 1992), states were required to adopt SIPs that would codify their conformity procedures. Until approval of these state conformity SIPs, MPOs in ozone and CO nonattainment areas were required to show that transportation plans and programs would contribute to annual reductions of mobile source emissions.

### ***The 1991 Interim Conformity Guidance***

In June 1991, US DOT and EPA jointly issued *interim conformity guidance* that established temporary procedures until the federal conformity regulations were promulgated. The interim guidance was intended to fill a short void but continued in place for more than two years while the federal agencies negotiated and solicited stakeholder comments on the content of the regulations, not finally promulgated until November 1993.

The interim guidance specified procedures and analytic techniques nonattainment and maintenance areas should follow to meet the CAAA requirements. Among these was the establishment of quantitative emission tests to show that transportation plans/programs/projects were not increasing the frequency or severity of existing air quality violations and were contributing to annual VOC

and CO emission reductions. These emissions reduction tests included two separate analyses:

- a “build/no-build” test in which areas had to show that emissions would be less if all projects in the plan/program were implemented (the “action” scenario) than if they were not implemented (the “baseline” scenario);<sup>4</sup> and
- a “less-than-1990” test in which areas had to show that emissions in the action scenario would be lower than 1990 emission levels.<sup>5</sup>

Because PM<sub>10</sub> modeling techniques were not yet well developed, PM<sub>10</sub> conformity determinations under the interim guidance could be accomplished using qualitative assessment methods proposed by the MPO and jointly approved by US DOT and EPA. The interim guidance also included a list of specific project types that the federal agencies agreed would be “exempt.” Consequently, they could move toward imple-

---

<sup>4</sup>Projects included in the baseline scenario included all in-place regionally significant highway and transit facilities, services and activities and all on-going transportation demand management (TDM) and transportation system management (TSM) activities. The action scenario included all projects in the baseline scenario plus all new regionally significant projects, including transportation control measures (TCMs) and non-federal regionally significant projects that would be implemented by the analysis year.

<sup>5</sup>The interim guidance required emissions tests for CO in CO areas and VOCs (but not NOx) in ozone areas. The less-than-1990 test was not explicitly spelled out in the interim guidance, but was clarified as being an implicit requirement of the interim guidance in a U.S. DOT memo entitled “Further Guidance on Conformity Determinations” from the Director, Office of Environment and Planning to the Regional FHWA Administrators and the Federal Lands Highway Program Administrator (dated July 27, 1992).



mentation even if they came from a non-conforming transportation plan/program.

### **The 1993 Conformity Rule**

The CAAA required that EPA, with DOT concurrence, promulgate the federal conformity regulations before the end of 1991. But development of the rule proved much more time consuming than the framers of the statute had anticipated. Following issuance of the conformity guidance in June 1991, EPA and DOT negotiated for more than a year on how to operationalize the full statutory requirements. The Notice of Proposed Rule-making (NPRM),<sup>6</sup> published on January 11, 1993, just as the Bush Administration was leaving office, generated sharp criticism from both the transportation and environmental stakeholders. Senior career officials in both agencies, eventually joined by policy officials from the new Clinton team, managed extensive consultations with stakeholder representatives, as well as further interagency negotiations, to develop the final version of the rule, which was not published until November 24, 1993.<sup>7</sup>

The 1993 conformity regulations established performance measures and procedural

requirements, specified penalties designed to motivate compliance, and indicated the circumstances under which the penalties would be applied.<sup>8</sup> It also laid out an implementation schedule, with varying conformity requirements in each phase:

- The *Interim Phase II* began 30 days after publication of the rule (December 27, 1993) and ended with an area's submission of a control strategy SIP for a particular pollutant (i.e., a SIP with an emission budget, such as the 15% VOC reduction SIP or an attainment demonstration).
- The *Transitional Period* began with an area's submission of a control strategy SIP and ended when EPA took final action on the SIP (e.g., an approval, disapproval, or finding of incompleteness).
- The *Control Strategy Period* began for an area when EPA approved its control strategy SIP and ended when the area could demonstrate that its emissions had been reduced to meet federal air quality standards. (This occurred when EPA approved the area's redesignation request, including both a demonstration that the area had

---

<sup>6</sup>Environmental Protection Agency, *Criteria and Procedures for Determining Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Funded or Approved Under Title 23 U.S.C. or Federal Transit Act*, 40 CFR Part 51 (58 FR 3768), January 11, 1993.

<sup>7</sup>Environmental Protection Agency, *Air Quality: Transportation Plans, Programs, and Projects; Federal or State Implementation Plan Conformity; Rule*, 40 CFR Parts 51 and 93 (58 FR 62188), 24 November 1993.

---

<sup>8</sup>As described below, the 1993 conformity rule has since been amended three times to simplify some of its provisions and to increase implementation flexibility. See Environmental Protection Agency, *Transportation Conformity Rule Amendments: Transition to the Control Strategy Period*, 40 CFR 51 and 93 (60 FR 40098), 7 April, 1995; *Transportation Conformity Rule Amendments: Miscellaneous Revisions*, 40 CFR 51 and 93 (60 FR 57179), 14 November, 1995; and *Transportation Conformity Rule Amendments: Flexibility and Streamlining*, 40 CFR 51 and 93 (62 FR 43780), 15 August, 1997.

attained the NAAQS and a maintenance plan that set forth strategies to sustain compliance for ten years).

- The *Maintenance Period* began with approval of the maintenance plan and continued for 20 years. (The maintenance plan covered a ten-year period, at the end of which another ten-year maintenance plan would be written to outline strategies to preserve the standard to the end of the 20-year maintenance period.)

### **Performance Standards**

To ensure that transportation plans, programs, and projects conformed to SIP commitments to meet the national air quality standards, the 1993 conformity rule maintained the emission reduction tests found in the interim guidance and added other analytic requirements:

- PM<sub>10</sub> areas, previously required only to perform a qualitative analysis, were now required to complete a quantitative analysis of PM<sub>10</sub> and its precursors (VOCs and/or NO<sub>x</sub> if they contributed significantly to PM<sub>10</sub> problems), using either the build/no-build test or the less-than-1990 test.
- Ozone areas, which had been required to perform the emission reduction tests (the build/no-build and less-than-1990 tests) only for VOCs under the interim guidance, were now also required to perform both emission reduction tests for NO<sub>x</sub> (as a precursor of ozone).

- A new emission test, the “budget test,” which makes a direct comparison between the SIP mobile source budgets and the emissions modeled from the transportation network (for all pollutants and/or their precursors) was also added by the 1993 conformity rule.

According to the regulations, for any particular pollutant for which an area was not in attainment of the NAAQS, emission reduction tests were required until the end of the Transitional Period. The budget test did not begin until the onset of the Transitional Period, when a SIP with a mobile source budget was submitted.<sup>9</sup> Thus, during the Transitional Period, both the emission reduction tests and the budget test were required. Not until the beginning of the Control Strategy Period were the emission reduction tests dropped, allowing the use of *only* the budget test. (As will be discussed below, this testing protocol was simplified through amendments to the conformity rule in 1997.)

In any conformity determination, all required emission tests were to be applied to several *analysis years*. The first analysis year was the first milestone year in the applicable SIP – 1995 in CO areas and 1996 in ozone areas.<sup>10</sup> The second analysis year was either

---

<sup>9</sup>The Transitional Period could start at different times for different pollutants, depending on the due dates for control strategy SIP submissions for each pollutant. Areas in violation of the NAAQS for more than one pollutant could therefore simultaneously be in different conformity periods for different pollutants.

<sup>10</sup>SIP milestone years are ones in which specific emissions levels are to be achieved. Thus, in ozone ar-

the attainment year or, if the attainment year was the same as the first analysis year or earlier, five years after the first analysis year. The last analysis year was the final horizon year of the 20-year transportation plan.<sup>11</sup> In between, additional analysis years had to be selected so that no two analysis years were more than ten years apart. Thus, to perform the conformity analysis, a nonattainment area would complete all required emission tests for each analysis year. Nonattainment areas that were out of compliance for more than one pollutant had to complete these tests for each pollutant and/or its precursors.

### ***Procedural Requirements***

In addition to the performance standards, the 1993 conformity rule established a comprehensive set of procedural requirements. These were intended not only to standardize the analytic techniques used for conformity determinations, but also to enhance communication and coordination among the agencies involved with conformity and to ensure implementation of transportation plans/programs that have air quality benefits. In major nonattainment areas, the rule required the use of

---

each, the first milestone year was 1996, when 15% reductions in VOCs were required (unless an attainment demonstration was submitted first). Subsequent milestones occur every three years thereafter as rate-of-progress reductions were required.

<sup>11</sup>Horizon years are those for which the transportation plan describes the envisioned transportation system and documents and quantifies the demographic and employment factors that influence expected transportation demand. The first horizon year is generally ten years after the base year and the final horizon year is the last year in the transportation plan.

computer simulation models to analyze the transportation system. Specifically, by January 1, 1995, CO areas and ozone areas classified serious and above had to use network-based transportation demand models with certain specific attributes. As part of the modeling protocol, the conformity rule required the use of the most recent planning assumptions available – e.g., current estimates of population, employment, travel, congestion, transit service, and TCM implementation. In addition, the rule called for use of the most recent version of the motor vehicle emission model and specified the frequency with which conformity determinations must be made.

The 1993 rule required interagency consultation on conformity determinations, but, within broad guidelines, allowed each state to craft customized procedures to reflect its own institutional arrangements for transportation and air quality planning. These were to include a delineation of the roles and procedures to be undertaken by MPOs, the state DOT, state and local air quality agencies, US DOT, and EPA before making conformity determinations and developing SIPs. In addition, the consultation procedures were supposed to establish guidelines for various conformity processes, such as selecting transportation models, deciding whether projects were exempt or regionally significant, and determining whether TCMs were being funded and implemented.

Three other conformity provisions – regarding TCM implementation, fiscal constraint, and exempt projects – sought to ensure implementation of transportation projects that benefit air quality. The first was a requirement that TCMs included in a SIP be implemented

in timely fashion. If a TCM was not being implemented on time, the MPO had to determine what obstacles existed, identify the steps being taken to alleviate the problem, and ensure that priority was being given to funding the TCM. Conformity was also made contingent on fulfilling a provision of ISTEA requiring transportation plans and programs to be fiscally constrained – i.e., they could include only projects that reasonably expected funding. Historically, transportation plans and programs listed many more projects than could be afforded. Although TCMs were included, they were frequently not implemented because the responsible agencies chose to spend available funds on other projects. In addition, the 1993 conformity rule repeated the categorization of exempt projects (which originated in the interim guidance).<sup>12</sup> This provision allowed certain transit and air quality beneficial projects – such as ride-sharing and bike and pedestrian facilities – to move forward even if the area could not pass the conformity tests.

---

<sup>12</sup>The 1993 conformity rule established four categories of exempt projects, which include: (1) Safety projects, such as railroad/highway crossing, hazard elimination programs, shoulder improvements, guard-rails, median barriers, crash cushions and skid treatments; (2) Mass Transit projects, such as operating assistance to transit agencies, purchase of support vehicles, rehabilitation of transit vehicles, construction or renovation of signal systems and purchase of new buses and rail cars; (3) Air Quality projects, such as ride-sharing and van-pooling promotion activities at current levels and bicycle and pedestrian facilities; and (4) Other, such as noise attenuation, advance land acquisitions and acquisition of scenic easements.

## **Penalties and Penalty Triggers**

What made the conformity regulations compelling to transportation agencies – and potentially threatening – was that failure to fulfill these conformity requirements by specified deadlines would prevent programmed transportation projects that were not “grandfathered” (see below) from advancing through the design and construction process and, ultimately, lead to withholding of federal transportation funds.

Penalties under the 1993 conformity rule take the form of a conformity “freeze”<sup>13</sup> or a conformity “lapse.”

- During a *freeze*, no new transportation plans or programs can be approved, and no projects can be added to existing plans/programs. However, during a freeze, projects from the first three years of previously conformed plans/programs can still be advanced – i.e., reviewed under NEPA or funded for detailed design or construction.
- During a *lapse*, no new project-level conformity determinations can be made. Because the ISTEA metropolitan planning rules require that only projects from a conforming plan/program can be funded, a conformity lapse halts the flow of federal money to any new projects. However, projects can continue to be funded if they

---

<sup>13</sup>The term “freeze” did not actually appear in the regulations until the 1997 amendments (see below). However, it was widely used to denote the the 1993 rule provisions with which it is associated here.

are exempt or if they are “grandfathered” (i.e., come from a conforming plan and program, have been found to conform at the project level, have completed the NEPA process as it applies to transportation, and have not changed significantly in design and scope). Grandfathered projects are allowed to continue during a lapse because they have already gone through the air quality analysis and been shown not to increase regional emissions.

The conditions under which conformity could freeze or lapse depended on specific “triggers” associated with transportation and SIP planning deadlines or inability to pass the conformity tests. The conformity triggers connected to transportation planning deadlines were fairly simple and straightforward. Conformity lapsed if the transportation plan or program was not updated and conformity re-determined at least every three years. Also, any plan revision required a TIP update and conformity re-determination within six months, unless the plan merely added or deleted exempt projects.

Conformity triggers associated with SIP planning were more varied, relating both to adoption of new SIPs and to EPA disapproval of previously submitted SIPs. Conformity of existing transportation plans had to be initially determined within 18 months of the publication of the 1993 conformity rule. Subsequently, conformity had to be determined within 18 months of approval of any new SIP that established or revised a mobile source emission budget, or added, deleted, or changed a TCM. During the transitional period, a conformity determination on plans

and programs had to be made within one year of a control strategy SIP due date.

In addition, the 1993 rule included a number of triggers tied to SIP “failures”:

- If a SIP was not submitted, or was found incomplete, conformity was first frozen 120 days after the SIP due date and lapsed 12 months after the SIP due date.
- If a SIP was disapproved, conformity lapsed 120 days after the disapproval, unless the disapproval contained a “protective finding.” EPA could give a protective finding either to an incomplete or disapproved SIP. A protective finding was granted if EPA determined that the SIP submission would have been approvable or complete if all committed measures had been submitted in enforceable form (i.e., with legally binding implementing regulations). Under a protective finding, the area would be allowed an additional 12 months after the finding to complete the SIP before conformity would lapse.

In all cases of SIP failure, a conformity freeze or lapse was based solely on the status of the SIP, which might or might not have anything directly to do with mobile sources. Moreover, the penalty was imposed irrespective of the area’s ability to meet other procedural or analytic requirements of the conformity rule. EPA developed the SIP failure triggers because it believed that, in the prolonged absence of an acceptable control strategy SIP, the CAAA required nonattainment areas to refrain from advancing transportation

projects that could increase emissions.<sup>14</sup>

## Amendments to the 1993 Conformity Rule

The first year of implementation of the 1993 conformity procedures concluded with a dramatic change in national political power. By early 1995, an aggressive new Republican Congressional majority, swept into office by the national elections of November 1994, was looking critically at all federal regulatory policies. At the same time, many state officials vocally criticized the 1993 regulations. They perceived cumbersome procedural requirements, models too crude to be used for critical regulatory purposes, and the looming possibility of widespread interruptions of federal transportation funding as a result of conformity lapses, which appeared likely to result primarily from missed Clean Air Act deadlines. These events placed conformity in a national spotlight. EPA, responding to stakeholder criticism but preserving the basic framework of the 1993 regulations, made a series of modifications to provide nonattainment areas more time for compliance and make the requirements more flexible. Three sets of amendments were eventually issued between February 1995 and August 1997.

### ***The August 1995 Amendments***

The most immediate implementation issue

---

<sup>14</sup>Environmental Protection Agency, *Air Quality: Transportation Plans, Programs, and Projects; Federal or State Implementation Plan Conformity; Rule*, 58 Federal Register 62192 (24 November 1993).

in late 1994 was pressure on states to complete SIP requirements before conformity lapsed as a result of a SIP failure. The CAAA of 1990 had established two types of mandatory sanctions of which the cutoff of state transportation funds was seen as the more severe. EPA was obligated to impose this highway sanction two years after the failure of states to comply with certain provisions of the law, including SIP failures. But the 1993 conformity regulations, in effect, imposed the transportation funding sanction under an accelerated time schedule. For example, many areas whose 15% VOC reduction SIPs had been designated “incomplete with a protective finding,” pending formal adoption of state regulations, were facing conformity lapses at the end of 1994, even though they would not have been subject to highway sanctions for another year. In November 1994, moreover, states were required to submit ozone attainment demonstrations for moderate or above ozone nonattainment areas and 3% rate-of-progress (ROP) plans for serious and above ozone areas. If these submissions were not completed on time, areas would face a conformity lapse after only 120 days. But many were having difficulty putting in place the air quality dispersion modeling capacity required for these SIPs, and EPA had not resolved data and regulatory uncertainties about interstate ozone transport.

State transportation and environmental policy officials, convened through the National Governors Association to seek consensus on how these issues should be addressed, argued that imposing conformity-triggered “highway sanctions” more quickly than could be done under the mandatory sanctions provision of the

Clean Air Act was inconsistent with Congressional intent, especially when EPA was in part responsible for delays in fulfilling the Act's requirements.

EPA acted quickly to grant temporary relief to the substantial number of areas facing imminent conformity lapses. In February 1995, the agency amended the 1993 rule to increase the time period before conformity lapsed for certain types of SIP failures, effectively aligning the timing of these lapses with the mandatory CAAA highway funding sanctions.<sup>15</sup> Under these amendments, areas with certain types of SIP failures were no longer subject to the conformity lapse and were allowed two years after the finding to correct the SIP before conformity lapsed. The affected SIP failures were:

- incomplete 15% SIP with a protective finding,
- incomplete ozone attainment demonstration or 3% ROP SIP,
- failure to submit an ozone attainment demonstration or 3% ROP SIP,
- disapproval with a protective finding for any control strategy SIP for any pollutant.

The amendments, however, retained a conformity freeze and did not align the lapse dates with the CAAA sanctions dates for certain other types of SIP failures, specifically:

- a failure to submit a 15% SIP or an incomplete 15% SIP without a protective finding;

- a failure to submit or an incomplete attainment demonstration for CO, PM<sub>10</sub> or NO<sub>2</sub>; or
- a disapproval of any control strategy SIP without a protective finding.

Because the amendments dealt only with SIP failures, areas that had a complete or approved control strategy SIP were still required to fulfill the conformity requirements within one year of the SIP deadline.

### ***National Highway System Designation Act of 1995***

Although the 1993 conformity regulations had specified that conformity applied only to nonattainment and maintenance areas, environmental groups had challenged this interpretation of the CAAA of 1990. They successfully argued in litigation that conformity should also be required in attainment areas so that they could anticipate transportation emission problems that might subsequently produce violations of the national ambient air quality standards. Congress pre-empted that legal victory in November 1995, however, with a provision in the National Highway System Designation Act stating that conformity was required only in nonattainment and maintenance areas.

### ***The November 1995 Amendments***

Shortly after the interim final rule for the first amendments took effect, areas with ozone attainment demonstration problems gained further relief. In March, 1995, EPA Administrator

---

<sup>15</sup>The February interim final rule, effective immediately, became final in August 1995.

Mary Nichols announced a new approach to development of ozone attainment demonstrations. It phased and delayed the attainment demonstration submission dates, allowing areas more time to study ozone transport issues and come to a regional consensus on how to deal with them. It also postponed the threat of conformity lapses due to attainment demonstration failures.

Although many areas avoided lapses through the first conformity amendments and the attainment demonstration delays, stakeholder criticisms of the conformity rule continued. In late March, the National Governors Association brought state transportation and environmental officials together with EPA and US DOT managers to outline a variety of conformity issues they wanted addressed. The state representatives pushed EPA to align the lapse dates for SIP failures that were not covered by the first amendments with CAAA highway sanction dates. State officials also advocated making the regulations less cumbersome and more flexible. They sharply questioned the value of the build/no-build test once a SIP budget had been submitted. Another concern was the inability of areas to adopt non-federally funded projects during a conformity lapse. States also wished to have a mechanism in the conformity rule that would allow non-exempt projects to be added to plans/programs without a full-scale regional analysis. Of concern to some states was the burden placed on rural nonattainment areas by a lack of comprehensive transportation planning and modeling capacity, which made it difficult to link specific transportation projects to regional emissions impacts. States also sought greater flexibility in making TCM substitutions in SIPs and pointed out the need

for an easier way in which to change SIP budgets to reflect updated models and/or assumptions. These issues were discussed in greater detail in April at a national stakeholders meeting, including the federal agencies, state DOTs, MPOs, air agencies, and environmental advocacy groups.

In responding to these concerns, EPA dealt again with the most pressing issues and held the more difficult and less time sensitive for later deliberation. The second package of amendments to the 1993 conformity rule (proposed in August 1995 and published as a final rule in November 1995) included the following provisions:

- Conformity lapses were aligned with CAAA highway sanctions for some of the SIP failures not covered by the first amendments:
  - failure to submit or an incomplete 15% SIP without a protective finding and
  - failure to submit or an incomplete CO, PM<sub>10</sub>, or NO<sub>2</sub> attainment demonstration.
- The grace period during which areas were required to make a conformity determination after the submission of a control strategy SIP was extended from 12 to 18 months.
- SIP TCMs were allowed to proceed during a conformity lapse.



### **The August 1997 Amendments**

Further changes took two more years of consultation and negotiation. The third amendments to the 1993 conformity rule, initially proposed in July 1996 and published in final form in August 1997, dealt with several issues that had been previously raised by stakeholders. The most important provisions simplified the emission test requirements:

- Areas were allowed to drop the emission reduction tests (build/no-build and less-than-1990) and use the budget test within 45 days of a SIP budget *submission*.<sup>16</sup> (Previously both the emission reduction tests and the budget test were required until the budget was *approved* by EPA.) This significantly simplified the testing protocol and eliminated several conformity phases that had previously governed the application of emission tests.
- Rural nonattainment or maintenance areas were given the option of choosing the budget test, the emissions reduction tests (build/no-build and/or less-than-1990 test) or dispersion modeling to demonstrate conformity in the years not addressed by the SIP.

The 1997 amendments also made a number

of changes to give areas greater flexibility in applying the conformity requirements:

- In areas with a disapproved SIP without a protective finding, the transportation plan or TIP would be frozen (instead of lapsing) 120 days after the disapproval.
- During a conformity lapse, non-federal projects could be implemented if they were included in the first three years of the most recent plan/program conformity determination.
- Traffic signalization projects did not have to come from a conforming plan/TIP in order to advance, but the emissions associated with these projects had to be included in the next regional analysis.<sup>17</sup>
- The transportation network modeling requirements were streamlined.

However, the 1997 amendments to the conformity rule did not address the issue of flexibility for transportation control measures, which had concerned a number of states, because EPA believed that TCM substitutions were already possible under existing policies for SIPs.

---

<sup>16</sup>If a previously approved budget existed, that budget continued to apply for the years it covered.

---

<sup>17</sup>This provision reflected a Clean Air Act Amendment enacted by Congress in September 1996.