

General Conformity Determinations for Port Projects

White Paper #1

Prepared for U.S. EPA
EPA Contract No. 68-W-03-028
Work Assignment No. 18, Port Regulation Issues
Contact: Kathleen Bailey

Prepared by ICF Consulting
Contact: Jeffrey Ang-Olson

May 4, 2004

This white paper is one of a series written for the U.S. EPA, Sector Strategies Program, in support of its partnership with the American Association of Port Authorities (AAPA). AAPA's Harbors, Navigation, and Environment Committee has expressed a desire to work collaboratively with EPA to address the issues discussed in this paper. The purpose of this white paper is to clarify current practice and concerns and to propose recommendations for follow-on activities that will support improved environmental performance.

1. Introduction

The Clean Air Act provides the basis for the pursuit of general conformity in seaports by stating that federal actions are prohibited from contributing to the area's non-attainment of air quality standards. In the absence of clear comprehensive guidance on the process, a range of approaches to evaluating and determining general conformity have emerged across regions. These approaches by EPA regional offices, and their counterparts in the Army Corps of Engineers and ports across the country, have contributed to a perspective that the implementation of the general conformity provisions is varied and, as a result, unclear. Indeed, differences exist in a number of issues related to general conformity, such as the consideration of offsets for emissions that exceed *de minimis* levels, the inclusion of port construction activities in State Implementation Plans (SIPs), and the process and format by which general conformity determinations are sought and rendered. This paper will summarize the prevalent policies and practices that comprise the general conformity process, discuss issues that appear to contribute to the provision's variable application, and propose possible solutions.

2. Current Policies and Practices

The Clean Air Act includes language in Section 176(c) that seeks to prohibit federal actions that would contribute to the violation of a State Implementation Plan, which outlines target levels and efforts to protect air quality. This section is interpreted more precisely in the final rule issued in 58 FR 63214 on November 30, 1993. It applies to all federal actions, except for transit and highway actions, which are covered by separate transportation conformity requirements.¹ Federal actions may include the issuance of permits by the Army Corps of Engineers (Corps) for construction projects, water or wastewater projects funded by the EPA, or federal construction projects on federal lands, such as buildings, laboratories, or reservoirs.² For purposes of this paper, only actions associated with seaports will be considered as those subject to these "general conformity" determinations.

The rule states that federal actions that positively contribute to state conformity with the Clean Air Act are those that do not:

- (1) cause or contribute to any new violation of any standard in any area,
- (2) increase the frequency or severity of any existing violation of any standard in any area, or
- (3) delay timely attainment of any standard or any required interim emissions reductions or other milestones in any area.³

The rule further states that certain types of port-affiliated federal actions are exempt:

- (1) those covered by the transportation conformity rule, such as land-based transit connections to the port,

¹ See White Paper #4 for a discussion of transportation conformity issues.

² Federal Register Vol. 58, No. 228, p. 63223, "Determining Conformity of General Federal Actions to State or Federal Implementation Plans; Final Rule" November 30, 1993.

³ Federal Register Vol. 58, No. 228, p. 63124, "Determining Conformity of General Federal Actions to State or Federal Implementation Plans; Final Rule" November 30, 1993.

- (2) actions with associated total direct and indirect emissions resulting in below *de minimis* levels, and
- (3) certain other actions which are exempt or presumed to conform (such as maintenance dredging).⁴

The latter category includes activities done in response to a national emergency (within six months of event) or that take place on Superfund (CERCLA) sites, for example, as well as those that involve general and routine maintenance.⁵ In addition, port activities in attainment areas (those geographic areas where air quality conforms to national standards) are not generally subject to the general conformity determination, unless the area was previously in nonattainment and is now under a Maintenance Plan. General conformity is only required for pollutants or precursors of pollutants for which an area is in nonattainment or maintenance status.⁶

While conformity can be applied to any activity that involves federal action (such as wharf construction or the use of federal funds), port projects subject to conformity determinations are most likely to be dredging projects, since they typically require a permit from the Corps. (As mentioned above, maintenance dredging is presumed to conform and therefore exempt, while new dredging efforts for port expansion, for example, are subject to a conformity analysis.) Other activities that might trigger a conformity determination are those associated with landside issues, such as the expansion of rail or roadway connections servicing the port. The federal agency that undertakes the action is responsible for demonstrating general conformity; in the case of a dredging permit, for example, the Corps would be the responsible federal agency. In practice, however, the task of documenting and assembling the general conformity determination request often falls to the port or its contractors.

The Corps may not issue a permit for construction activity until it is decided that a general conformity determination is necessary, and completed. Projects may demonstrate conformity by showing that they are already included in an EPA-approved SIP (and this could include port construction emissions that are included in an overall SIP construction emission inventory). Projects not noted in the SIP may be subject to a conformity determination if one of two conditions exist. First, if any one or more of project emissions exceed *de minimis* levels (see Exhibit 1), a formal determination is required that demonstrates how *all* of the emissions will be fully offset before a permit may be issued. Second, a conformity determination is required for projects that are considered “regionally significant,” where total project emissions for a pollutant are greater than ten percent of the emissions inventory for the non-attainment or maintenance area for that pollutant.

The precise format for documenting and determining general conformity is not fully specified in the applicable rule, although some guidelines for the process are provided. The process stipulates a minimum comment period for the appropriate EPA regional office, state and local air agencies, and other relevant federal agencies; in practice, this generally translates into consultations with EPA and the state air office. The years for which emissions must be forecast are clearly stated: the Act-mandated attainment year or the farthest year for which emissions are projected in the maintenance plan, the year in which total direct and indirect emissions are expected to be their greatest, and any year for which the SIP specifies an annual emissions budget.⁷ Other such guidelines include a description of acceptable modeling methods,⁸

⁴ 58 FR 63124

⁵ Stonefield, David. Phone call with author November 24, 2003.

⁶ 58 FR 63227.

⁷ 58 FR 63243.

⁸ 58 FR 63244.

recommendations for public review and participation processes,⁹ and calls for inter-agency coordination on the conformity process.¹⁰

Exhibit 1: De Minimis Levels for Project Emissions

Area Designation		Pollutant	<i>de minimis</i> Level (tons per year)
Ozone	Extreme Nonattainment	NOx or VOC	10
	Severe Nonattainment	NOx or VOC	25
	Serious Nonattainment	NOx or VOC	50
	Other Nonattainment, with Transport	NOx	100
	Other Nonattainment, with Transport	VOC	50
	Other Nonattainment, without Transport	NOx or VOC	100
	Maintenance	NOx	100
	Maintenance, with Transport	VOC	50
	Maintenance, without Transport	VOC	100
PM-10	Serious Nonattainment	PM-10	70
	Moderate Nonattainment	PM-10	100
	Maintenance	PM-10	100
CO	Nonattainment or Maintenance	CO	100
SO2	Nonattainment or Maintenance	SO2	100
NO2	Nonattainment or Maintenance	NO2	100
Pb	Nonattainment or Maintenance	Pb	25

The extent to which certain types of (direct and indirect) emissions are to be covered is in part discussed in the rule, as well. Noting the ambiguity of the original legislation, EPA concluded that direct emissions resulting from the activity must be included in a conformity determination, as well as indirect emissions that “are reasonably foreseeable, and can practicably be controlled by the Federal agency through its continuing program responsibility.”¹¹ This definition has proven to be unwieldy in its application, and could lead to a situation where consideration of activities outside of the jurisdiction of the federal agency (such as increased cargo throughput in future years) would make it impossible to mitigate indirect impacts to zero. These and other such issues are discussed in greater detail below.

In 1994, EPA issued two “Q&A” documents on general conformity that sought to clarify the 1993 rule with greater detail and discussion. The first was the result of a workshop held with stakeholders to field and answer questions about general conformity; this information is documented in the July 13, 1994 guidance document. The second document, dated October 19, 1994, briefly clarifies a handful of additional issues raised subsequent to the July document’s issuance. No further guidance has been issued directly relevant to seaports since that time, although a September 25, 2002 guidance document developed by EPA with and at the request of the Federal Aviation Administration (FAA) pertaining to the application of general conformity to airports may provide useful information in some regards.

In truth, the law and regulations associated with general conformity are different from many other EPA programs. The party responsible for the conformity evaluation and determination is the federal agency taking action – most often the Corps in port-related projects, due to their permit issuance function. As such, EPA is afforded only a review and comment function, and has no approval or enforcement powers.

⁹ 58 FR 63234.

¹⁰ 58 FR 63239.

¹¹ 58 FR 63214.

Furthermore, the general conformity regulations were drafted to cover a wide variety of federal actions and, as such, provide more general objectives and policy framework. Federal agencies are responsible, therefore, for developing specific program guidelines, and implementing them through guidance documents and training courses. EPA has supported and conducted workshops and other such assistance efforts on these issues when requested to do so by other agencies; the joint EPA/FAA guidance document mentioned above is one such example. EPA is likely to announce plans to revise its general conformity regulations with a Federal Register notice on the subject, expected in fall 2004. Once the final regulations are completed (approximately 8-10 months later), EPA is interested in issuing new guidance specific to ports, pending an expression of interest by the Corps.¹²

New EPA air quality standards may broaden the applicability of this issue and further demonstrate its critical nature. As a result, general conformity events are likely to be triggered in several ports that are located in areas that were previously in attainment, but are likely to be classified as nonattainment areas if they fail to meet the new standards. Exhibit 2 shows an estimate of ports that are located in areas that fail to meet the new 8-hour ozone standard (announced April 15, 2004), or are likely to fail to meet the new PM-2.5 standard when EPA designates these areas later this year. Exhibit 2 also identifies whether these areas are currently designated as nonattainment or maintenance areas under the existing 1-hour ozone or PM-10 standards. As described above, general conformity applies both to areas in nonattainment status and areas in maintenance status. Ports that are expected to see new nonattainment status for ozone or PM (i.e., ports that are not currently in an area under a nonattainment or maintenance plan for that pollutant) are shown in bold.

Of the ports located in areas that have been designated by EPA to be in nonattainment for the 8-hour ozone standard, all are currently located in a 1-hour ozone nonattainment or maintenance area. Thus, the implementation of the 8-hour ozone standard appears unlikely to affect many ports. Of the ports that are located in areas likely to be designated nonattainment for PM-2.5 (based on state recommendations to EPA), approximately six ports are not currently located in an existing PM-10 nonattainment or maintenance area, and these will experience PM nonattainment status for the first time. In every case, these ports are currently in an ozone nonattainment or maintenance area, and therefore are likely to have some experience with conformity issues. For all the ports in Exhibit 2, the new standards may make it increasingly difficult to demonstrate attainment because emissions budgets will become tighter. EPA's final designations of PM-2.5 nonattainment areas is expected by December 2004.

Exhibit 2: Ports Located in Areas Likely to be Designated as Nonattainment under EPA's New 8-Hour Ozone and Fine Particulate (PM-2.5) Standards

State	Port (County)	Nonattainment or Maintenance Area			
		1-hr Ozone (existing)	8-hr Ozone (new)	PM-10 (existing)	PM-2.5 (future) ^a
CA	Port of Hueneme/Oxnard Harbor District (Ventura)	x	x		
CA	Port of Long Beach (Los Angeles)	x	x	x	x
CA	Port of Los Angeles (Los Angeles)	x	x	x	x
CA	Port of Oakland (Alameda)	x	x		
CA	Port of San Diego (San Diego)	x	x		X
CA	Port of San Francisco (San Francisco)	x	x		
CA	Port of Stockton (San Joaquin)	x	x	x	x
CA	Port of Redwood City (San Mateo)	x	x		
CT	Bridgeport Port Authority (Fairfield)	x	x		

¹² Stonefield, David. Comments provided to author April 20, 2004.

State	Port (County)	Nonattainment or Maintenance Area			
		1-hr Ozone (existing)	8-hr Ozone (new)	PM-10 (existing)	PM-2.5 (future) ^a
DE	Port of Wilmington (New Castle)	x	x		X
IL	Illinois International Port District, Port of Chicago (Cook)	x	x	x	x
IN	Ports of Indiana (Vernon, Posey, Clark)	x	x		X
LA	Greater Baton Rouge Port Commission (West Baton Rouge)	x	x		
MA	Massachusetts Port Authority (Suffolk)	x	x		
MA	New Bedford Harbor Development Corporation (Bristol)	x	x		
MD	Port of Baltimore – Maryland Port Administration (Baltimore)	x	x		X
ME	Port of Portland, Maine (Cumberland)	x	x		
MI	Detroit/Wayne County Port Authority (Wayne)	x	x	x	x
NH	Port of New Hampshire, Pease Development Authority (Rockingham)	x	x		
NJ	Delaware River Port Authority (Camden)	x	x		
NJ	South Jersey Port Corporation (Camden)	x	x		
NY	Albany Port District Commission (Albany)	x	x		
NY	New York City Economic Development Corporation (Bronx, Kings, New York, Queens, and/or Richmond Counties)	x	x	x	x
NY/NJ	Port Authority of New York and New Jersey (multiple NY and NJ counties)	x	x	x	x
OH	Cleveland-Cuyahoga County Port Authority (Cuyahoga)	x	x	x	x
OH	Toledo-Lucas County Port Authority (Lucas)	x	x		X
PA	Philadelphia Regional Port Authority (Philadelphia)	x	x		X
RI	Rhode Island Economic Development Corporation (Washington)	x	x		
TX	Port of Beaumont (Jefferson)	x	x		
TX	Port Freeport, TX, Brazos River Harbor Navigation District (Brazoria)	x	x		
TX	Port of Galveston (Galveston)	x	x		
TX	Port of Houston Authority (Harris)	x	x		
TX	Port of Orange, TX (Orange)	x	x		
TX	Port of Port Arthur Navigation District (Jefferson)	x	x		
VA	Port of Richmond (Chesterfield)	x	x		
VA	Virginia Port Authority (Norfolk city)	x	x		
WI	Port of Milwaukee (Milwaukee)	x	x		N/A

a: Based on state recommendations to EPA for nonattainment designation.

Note: This list should not be considered an official list of current or future nonattainment status. It is based on consultant review of the following sources: Ports were identified by AAPA using their member database; areas designated as nonattainment or maintenance areas for the 1-hour ozone standard or the PM-10 standard were identified from a review of EPA's Green Book, <http://www.epa.gov/oar/oaqps/greenbk/>; areas that do not meet EPA's new 8-hour ozone standard were identified from the listing on EPA's website, <http://www.epa.gov/ozonedesignations/statedesig.htm>; areas recommended by states for PM-2.5 nonattainment designation were identified from EPA's website, <http://www.epa.gov/pmdesignations/state.htm>.

It is worthwhile to note the many ways in which ports are already striving to reduce emissions. The use of electric dredges, for example, in the Port of Los Angeles' Pier 400 expansion projects generated significantly fewer pollutants than the use of a combustion engine-powered dredge.¹³ The Ports of Long Beach and Los Angeles are working with partners to replace railroad locomotives with cleaner engines; every new engine is expected to reduce NOx emissions by an estimated 20 tons per year.¹⁴ And the Port of Houston worked with a coalition of federal, state, and community partners to develop a plan for their port modernization project that promises long-term net positive environmental effect for the Galveston Bay area, and the reuse of dredge material as a redeveloped recreational Redfish Island.¹⁵

Nevertheless, the general conformity rule has now been in force for ten years, and discussions with representatives from ports, U.S. EPA regional offices, and Corps districts demonstrate that there are a number of issues that warrant further clarification if the general conformity provisions are to be applied uniformly and consistently to achieve maximum environmental protection. A discussion of those issues and their potential solutions follows.

3. General Conformity Issues

In general, there appears to be a wide range of experiences in and approaches to the implementation of general conformity provisions across ports, EPA regions, and Corps districts. Only a handful of ports are currently involved in the general conformity process. The ports of Houston, Los Angeles, New York/New Jersey, Camden (NJ), and Philadelphia all reside in non-attainment or maintenance areas, and are pursuing or have pursued construction projects (most often dredging for harbor deepening and expansion) that warrant the federal issuance of a permit from the Corps. Most other ports have less familiarity and experience with the process because they have not undertaken major construction projects in recent years or because they are not located in a nonattainment or maintenance area, and thus are not subject to general conformity requirements.

Among EPA regions, the level of experience varies accordingly. This is in part the result of relatively small number of ports pursuing general conformity. It is also, however, a factor of the particular working dynamic that each regional office has with its Corps counterparts, state air colleagues, and port representatives. Some are well versed in the process, having been involved in regional collaborative efforts on air quality that include port representatives; EPA Region II is one such example. Others are less directly familiar with the process because no general conformity events have arisen in their region, they have had relatively little involvement in those conformity events that have transpired, or as a result of staff changes; EPA Region VI is such an example.

Similarly, there appears to be a range of approaches to implementing the general conformity process among Corps offices. In some cases, the Corps assumes the full responsibility of evaluating and documenting the applicability of general conformity, and/or any further documentation that is required as a result of their findings. In other cases, this responsibility is shifted to the port (also referred to as project sponsor) or its contractors. In this case, the port is made responsible for assembling the documentation, estimating and documenting the project's emissions and offsets, and acquiring letters of support from the state air office, metropolitan planning organization (MPO), or other entities, as appropriate. Still greater variations exist in how Corps district offices define their respective jurisdictions with regards to indirect

¹³ Port of Los Angeles website, "Improved Infrastructure", <http://www.portoflosangeles.org/Environmental/infrastructure.htm>. Accessed February 21, 2004.

¹⁴ Port of Long Beach website, "Environment/Air Quality/Operational Improvements", http://www.polb.com/html/4_environment/airquality/Improvements.html. Accessed February 21, 2004.

¹⁵ Port of Houston website, "General Information," <http://www.portofhouston.com/geninfo/overview3.html#environcomm>. Accessed February 21, 2004.

emissions, as well as how it approaches the effort of offsetting project emissions that exceed *de minimis* levels. As will be discussed below, these variations are due in part to the new, evolving role for the Corps as an agency responsible for understanding and implementing air quality protection efforts.

The discussion of issues that follows is based on the five themes that emerged over the course of a dozen interviews with representatives of EPA, ports, and the Corps. Potential solutions follow each issue discussion.

1) A uniform format and process for completing general conformity determinations is not prescribed

EPA has provided detailed guidance on some aspects of the general conformity process, and responded to most requests to provide more detailed assistance, as needed. A great deal remains subject to interpretation by the attendant federal agency, however, resulting in discrepancies in when, how, and how much information is to be provided and reviewed to secure a conformity determination.

EPA's guidance stresses flexibility. It emphasizes the responsibility of and opportunity for federal agencies to consult with state and local air quality offices to ensure that the most appropriate criteria and the most current models, emission factors, and population estimates are used in each case,¹⁶ and to solicit and respond to other general comments as appropriate. The guidance provides for the possibility of pursuing general conformity through the National Environmental Policy Act (NEPA)¹⁷ process, when it is efficient and convenient, though it leaves it to the federal agency to determine the best ways to integrate the two processes.¹⁸ The extent to which other federal agencies and MPOs are expected to be involved is also vague. The EPA/FAA guidance says that states and local air agencies do not have to provide written confirmation before a determination is made, but they must be permitted 30 days to comment on the proposed findings. While they do not have an approval role in general conformity, MPOs may be consulted on port-related landside issues (such as roads and railways), or to provide confirmation that the project has been previously included in the SIP.¹⁹ While the EPA/FAA guidance includes details such as minimum requirements regarding types of covered emissions and specific years in which emission projects must be calculated, it specifies no particular structure nor format, giving rise to a dynamic interpretation of how extensive a general conformity must be.

Indeed, the practice among ports and federal agencies varies widely. As stated earlier, the most essential functions of the general conformity determination process – the estimation and documentation of project emissions and offsets – are at times carried out by federal agencies, while other times they are shifted to the project sponsor (port). EPA regional offices are involved to varying degrees. In Region II, the regional office is involved with port, Corps, and state air office representatives on an ongoing basis, and have been actively involved in the process of pursuing general conformity. In Region VI, a port official cited little EPA involvement beyond participation in conference calls in that region's demonstration of conformity on a recent project. The same port representative also pointed to her own port's innovative approach to determining whether projects emissions would trigger conformity, and how they have in part shifted the responsibility to potential contractors themselves. They hired a consultant to develop a "NOx Calculator", which is shared with all potential contractors bidding on port work. Bidders are required to input pertinent facts about their approach to project construction; if the screen turns red, they exceed *de minimis* levels,

¹⁶ EPA Office of Air Quality Planning and Standards "General Conformity Guidance: Questions and Answers" July 13, 1994, p. 19. Available online at http://www.epa.gov/ttn/oarpg/conform/gcgqa_71394.pdf.

¹⁷ The National Environmental Policy Act (NEPA) of 1969 requires the preparation of an Environmental Impact Statement (EIS) for all major federal actions significantly affecting the human environment.

¹⁸ EPA July 1994, p. 36.

¹⁹ FAA and EPA, 2002, p. 21.

and must revise their project until it turns green, indicating conformity.²⁰ In Region IX, the air quality staff is sometimes involved in port conformity determinations, but other times the matter is handled by their NEPA staff, since state regulations call on ports to document air impacts through the NEPA process.²¹ EPA involvement generally depends upon the impact and visibility of the project; if the Corps (as lead federal agency) requests EPA involvement, they are likely to respond to the request.²²

Potential Solutions

Recommendation 1 – It is recommended that federal agencies codify a model format for general conformity determinations for all future activities. Such a model would help ensure more uniformity in the Corps’ efforts across regions. It must be determined whether the best way to develop this is to engage a far-reaching representative group – including the Corps, MPOs, FHWA, FAA, Customs, EPA and others – or to limit the responsibility for its development primarily to the Corps, which would be the implementing agency. In either case, however, it is recommended that the format remain flexible enough to be applicable to all ports and the range of port-related activities likely to spur a conformity determination.

Recommendation 2 – It is recommended that EPA develop and promote guidelines for the general conformity process, including clear information on how and who should be involved in drafting, estimating, and reviewing the conformity documents.

Recommendation 3 – It is recommended that workshops be held for representatives of port environmental offices, Corps regulatory and civil works divisions, EPA regional air and NEPA offices, and state and local air offices, as well as members of the port construction industry. Such workshops would provide a comprehensive overview of the regulation, its implementation to date (including legal activity that has affected current processes), industry best practices such as the “NOx Calculator,” and the new clearer guidelines on how to achieve compliance with general conformity regulations. EPA has conducted such workshops in the past at the request of other federal agencies.²³

Recommendation 4 – It is recommended that the U.S. Corps of Engineers develop a program to implement general conformity regulations. One possible product of this effort could be the model format discussed in Recommendation 1 above. EPA would provide support and assistance as requested.²⁴

2) Indirect emissions are not well-defined, nor uniformly applied

EPA itself acknowledged the challenge of interpreting the original legislation with regards to indirect emissions in its 1993 general conformity rule.²⁵ The rule noted that federal actions are prohibited that would “support in any way” activity which does not conform to a SIP. Over time, this phrase has given rise to the difficult challenge of creating consensus on what constitutes an “indirect emission”. Emissions – both direct and indirect – that are covered by the rule are those that are reasonably foreseeable and practically controllable by the federal agency. “Control” over indirect emissions is further discussed in the July 1994 guidance as the “ability to regulate” through the use of emissions control equipment or the implementation of regulations or conditions over activities that impact emissions.²⁶ The issue remains in a state of flux. The U.S. Supreme Court is currently considering how EPA defines indirect emissions for the

²⁰ Fiffick, Laura. Phone conversation with author, December 3, 2003.

²¹ Lo, Doris. Phone conversation with author, November 26, 2003.

²² Stonefield, Dave. Comments provided to author, February 12, 2004.

²³ Stonefield, David. Comments provided to author, February 12, 2004.

²⁴ Stonefield, David. Comments provided to author, February 12, 2004.

²⁵ 58 FR 63214.

²⁶ EPA July 1994, p. 13

general conformity regulations, and a 9th Circuit ruling may expand the EPA definition. In practice, there is wide variation in the types of activities that are considered to cause applicable indirect emissions.

One EPA headquarters official stated that the Corps has traditionally taken a limited approach to the definition of “indirect emissions.” In the case of dredging, for example, the Corps (by virtue of its role as permit issuer or project partner) would be responsible for the transport of the dredge material by tugboat to the barge, but not necessarily for its disposition. In keeping with their aquatic responsibilities, the Corps would consider the indirect emissions associated with the full transfer of dredge material if it were dumped in the deep sea. If it were dumped on shore (but outside of Corps-regulated wetlands area), however, they would not, ceding responsibility as soon as the barge left the site.²⁷

From the perspective of ports, this historically limited definition is changing, however, as the Corps broadens its understanding of and responsibility for indirect emissions. Due to recent lawsuits, one port representative noted that the Corps had begun to apply more rigorous standards than they had previously. As a result, more extensive Environmental Impact Statement (EIS) documentation is now required, making the process of achieving conformity – and therefore project planning – longer and more costly.²⁸

A Corps official in the same jurisdiction provided an explanation for this dynamic. In many cases, air quality conditions in the communities surrounding ports are already so poor as a result of the cumulative effects of past development that any small increase must be thoroughly documented and justified. The Corps takes a longer view, noting that many of the port improvements will generate long term air quality benefits by facilitating more efficient disposition of cargo, and by accommodating newer, more environmentally-friendly vessels. Nevertheless, community groups, led by environmental advocates, challenged in court the assertion that construction activities deliver air quality benefits. Such events serve to heighten the Corps’ awareness on port emissions and implementation of the general conformity provisions.²⁹ Where once the Corps had been involved because of their marine and naval linkages under the Harbors Act, they now find themselves arbiters of air quality as well.

Although the sequence of events has not necessarily been the same, officials in other regions observe a similar evolution in Corps perspective on indirect emissions. One EPA regional official cited that the Corps “has come a long way in a short time.”³⁰ A port official acknowledged the challenge facing the Corps to implement air quality criteria when they had no prior experience or expertise in doing so.³¹

Given the wide range in types of projects that may trigger a conformity determination, as well as the potentially overwhelming level of detail that could be considered in calculating indirect emissions (such as those generated by the bread trucks now required to serve lunch to construction workers at the port), it is no surprise that there is inconsistency in deciding where the line should be drawn. One port official stated that the only way to overcome this enormous challenge is to collaboratively decide on standards that will be applied to all port projects. Failure to do so in the near future could result in decisions made by individual Corps offices in the intervening time that set potentially problematic precedent for future decisions. In the end, the Corps of Engineers is responsible for implementing the regulations, risking lawsuits if they do not do so properly.³²

²⁷ Stonefield, David. Phone conversation with author November 24, 2003.

²⁸ Appy, Ralph, Ph.D. Phone conversation with author November 21, 2003.

²⁹ Castenon, David. Phone conversation with author December 2, 2003.

³⁰ Moltzen, Michael, EPA Region 2.

³¹ Fiffick, Laura. Phone conversation with author December 3, 2003.

³² Stonefield, David. Comments provided to author, February 12, 2004.

Potential Solution

Recommendation 5 – One recommended solution is to convene a representative group of port, Corps, and EPA officials – as well as other informed stakeholders – to comprehensively analyze a number of different types of sample port projects for potential indirect and cumulative emissions. For each project, the officials would consider all possible types of indirect and cumulative emissions that may result, and determine whether or not they would fall under a general conformity determination. One potential resource for this group may include the forthcoming handbook from EPA’s Office of Federal Activities that examines the indirect impacts of channel deepening and port expansion on upland transportation systems. The results of the group’s efforts would be codified as Corps and EPA policy, and serve as the definitive reference for future general conformity assessments. Such efforts would build on past efforts by other federal agencies to better coordinate regional activities through training, and to develop guidance documents to aid facilities in conducting conformity analyses. (EPA has supported such efforts in the past, upon request).

It is recommended that this issue be resolved fairly quickly, because interim decisions made by federal agencies on the applicability of one type of indirect emission may be expanded in future decisions, thereby setting a potentially problematic precedent for future decisions.

3) Port improvement projects are inconsistently considered in SIPs

General conformity determination may be demonstrated when the proposed activity is specifically identified and accounted for in the state’s EPA-approved SIP, and when its emissions exceed *de minimis* levels. If the activity’s emissions have been accounted for in the SIP in a general category, a letter acknowledging that fact is required from the state air office. A project may also demonstrate conformity when its state air office amends its SIP to include the activity, notifies EPA, and commits to a schedule for an amended SIP that accommodates the increase in emissions without delaying attainment of federal air standards. As such, more routine inclusion of port-related activities in SIPs and greater involvement of ports in SIP development efforts provide important opportunities for project sponsors to more easily demonstrate conformity.

Even when port activities are nominally considered in a state SIP, their emissions may be calculated in very gross terms, rely on inaccurate assumptions, or utilize inappropriate methodologies. Similarly, the indirect emissions of projects – for example, the growth in truck traffic resulting from increased cargo capacity at the port – may be partially considered in the MPO projections included in its transportation conformity documents. Variations in when and how such potential emissions are calculated persist, and add to the perception of inconsistency.

Most states include a section in their SIPs that accounts for “offroad/nonroad emissions,” but are not required to solicit information for their calculation from federal agencies (such as the Corps). The July 1994 document released by EPA responds to a specific question on this subject, “Which party is responsible for identifying a project in the SIP?” They assert that states are not required to solicit information from federal agencies on activities that should be included in the SIP. However, “state agencies follow a public process for developing and adopting attainment demonstrations,” and federal agencies are encouraged to contact state and local air quality agencies to notify them of any projects that require a general conformity determination.³³

When they are included in a SIP, port activities may be named specifically, or referred to in general terms that correspond to a bulk estimate of projected emissions, making the task of demonstrating their

³³ EPA, July 1994, p. 5.

inclusion more difficult. More recent guidance from EPA and FAA pertaining to general conformity and airports seeks to clarify the question of how specifically a project needs to be identified in a SIP. They respond by saying that, “the more evidence that the emissions are included in the SIP the better.” Evidence may include record of the SIP development process that names the project, or assumed activity levels that only can occur if the project is completed.³⁴

Given the state leadership role in completing SIPs, and in the absence of uniform federal guidance on the subject, it is reasonable to assume that there will continue to be a range of approaches to considering port activities in SIP estimates. Even within the same state, varying levels of involvement and sophistication on air quality issues among ports will lead to differences in how port activities are included and represented in the SIP from one port to the next.

Potential Solution

Recommendation 6 – It is recommended that ports become more involved in the development of SIPs. Projects for which the emissions are already included in an EPA-approved SIP more easily demonstrate general conformity. Thus, through early planning, a port can potentially avoid difficulties associated with meeting the general conformity requirements, while ensuring that the project is consistent with regional air quality goals. To the extent that the SIP takes into account increases in projected emissions associated with port expansion, this will ensure that the port-related emissions increases are either offset by other sources or through measures targeted at marine or other port-related sources. Just as the 2002 EPA/FAA guidance specifically encouraged greater responsibility among airports to get involved in SIP development, so too could EPA encourage ports to become more actively involved in the process.³⁵ It is recommended that a workshop is designed and implemented for ports to learn how to better engage in the SIP planning process so that their projects can be incorporated into the SIP while it is being developed.

4) Projects avoid triggering general conformity by adjusting construction schedules

In an oft-used approach, ports first seek to avoid triggering the conformity determination process by revising their construction timeline when possible – stretching out the period of project activity – so that emission levels remain below *de minimis*. By requiring only the review and approval of projects that exceed *de minimis* levels, however, this practice allows projects that would generate significant quantities of new emissions over multiple years to proceed without review. In addition, such adjustments may contribute to higher construction costs for ports that might have otherwise been investing in technology that would yield air quality improvements.

In the same way that the previous issue complies with the letter of the law, but may appear to violate its spirit, this approach has been sanctioned by EPA as a viable port strategy; it is endorsed by EPA in their July 1994 guidance as an acceptable means of compliance.³⁶ Unlike the previous issue, however, which in its practice yields no net change in air quality, this practice may actually contribute to a deterioration in real air quality. The EPA acknowledges that it seeks to enforce general conformity in a manner that limits the expenditure of time and resources by federal agencies by focusing on those projects that are likely to have the most significant impacts on air quality. In this way, it differs from transportation conformity, which requires a conformity determination for all highway and transportation projects, regardless of their size.³⁷ The difference in treatment is, in part, due to the specificity with which transportation was dealt in

³⁴ FAA and EPA, 2002, p. 12.

³⁵ Stonefield, David. Comments provided to author, February 12, 2004.

³⁶ EPA July 1994, p. 12.

³⁷ EPA July 1994, p. 4.

the original legislation, and the lack thereof regarding general conformity. EPA cites that “there is virtually no information in the Congressional Record specifically directed at general conformity.”³⁸

Nevertheless, EPA has attempted to discourage the circumvention of the rule through “tiering”, in which large activities are broken down into smaller, ostensibly independent projects, each of which remains below *de minimis* levels. In its 2002 guidance regarding general conformity and airports, EPA (in conjunction with FAA) speaks to this issue directly: “General conformity does not allow ‘tiering’.”³⁹ The emission effects of projects that are potentially segmented into smaller activities must still be considered before any aspect of the project is completed. Note that while project tiering is not allowed, “phasing” of large projects is considered acceptable in terms of general conformity.

In the end, EPA relies on the NEPA approach to projects, stating that, “If projects or actions are combined together for NEPA, then generally they should be kept together for general conformity unless there are specific reasons to separate the projects or actions.”⁴⁰ Airport operators are encouraged to work with the FAA to determine whether to seek approval for a single plan, or to complete a conformity determination for smaller activities within a larger plan. In the same way, presumably, the guidance appears to suggest that ports should consult with the Corps and EPA to determine cases when the extension of construction timelines in order to avoid triggering a conformity determination is appropriate, and when it is not. In the end, responsibility for ensuring compliance rests with the Corps, who risk litigation if construction timing provisions are circumvented in order to avoid the general conformity process.⁴¹

The Bayport (Texas) construction project provides one such example of this approach. While it did adjust its construction schedule to remain below *de minimis* levels, it also incorporated contractual language to require other emissions reductions by both tenants and those involved in construction. General conformity was demonstrated in part due to provisions that required a) the use of “clean contractors” (who, for example, utilize clean diesel and newer equipment), b) contractors to apply for Texas Emissions Reduction Plan funds (which cover the incremental cost of cleaner equipment), and c) that the sponsor require all current and future tenants to use best management practices and other practicable technology to reduce emissions.⁴²

One port representative offered a slightly different perspective: that stretching out construction was so potentially costly and undesirable (given the length of project planning time) that it was not likely to be utilized by ports for the sole purpose of evading general conformity. Greater research on the occurrence of this approach, and its potential implications, is warranted.

Potential Solution

Recommendation 7 – It is recommended that EPA examine the occurrence of ports modifying and extending construction periods to avoid general conformity determination. EPA could consider the cumulative impacts of these events, and determine whether they represent overall air quality improvements. As necessary, EPA could then clarify through revised guidance the appropriateness of such an approach for ports, specifically, including detailed information on how, when and where it is warranted and is not.

³⁸ 58 FR 63218

³⁹ FAA and EPA 2002, p. 6.

⁴⁰ FAA and EPA 2002, p. 7.

⁴¹ Stonefield, David. Comments provided to author, February 12, 2004.

⁴² Gathright, Ken. Phone conversation with author February 24, 2004.

5) Guidance does not encourage long-term benefits to be considered as offsets

The formal guidance on offsets states that any emissions created by a project must be fully offset in the period of time in which they are created. “Fully offset” refers to the provision that, once a project (that is not already included in a SIP) exceeds *de minimis* limits for emissions, project emissions must be offset to zero, not merely to *de minimis* levels.⁴³ Further, such mitigation measures must yield offsets that “occur at the same time as the emission increases for which the offsets are necessary.”⁴⁴

This provision discourages ports from investing in technologies that would yield long-term air quality benefits, as the emission reductions that they would generate may not be considered as applicable offsets. As clearly stated in the July 1994 guidance, a federal project that creates long-term benefits that compensate for and even exceed its short-term air quality impacts does not conform (with the guidance), regardless of when the air quality violation takes place.⁴⁵ In practice, reductions are most often sought in the equipment involved in the construction activity: barges, dredges, and tugboats. For example, diesel dredges may be replaced with electric ones, as is the practice in many Southern California ports. While these efforts do serve to reduce emissions during the construction period, they are not fully effective in reducing emissions to zero. Ports are then tasked to identify other means to eliminate the balance. The most common approaches include the purchase of air credits, the recalculation of previous SIP estimates, or achieving reductions in emissions generated by other port-related activities.

This approach is in keeping with the letter of the rule in that no net change in air quality is created. It fails, however, to realize the spirit of the larger Clean Air Act legislation, by precluding the opportunity for ports to use the general conformity process to achieve true, long-term net improvements in air quality. As a result of the time-limited nature of the provision, ports are discouraged from using the financial resources they have committed to mitigation efforts to invest in cleaner technology for ongoing port activities, such as the installation of catalytic converters on barges. Instead, available funds are directed to sophisticated emissions inventories or the purchase of air credits that achieve benefits on paper, but may not yield real change in the quality of air. A representative of the Port of Oakland lamented the unintended consequence of this provision. He noted the opportunity that was lost to his port when they were successfully able to mitigate emissions to below the *de minimis* level, thereby eliminating the opportunity to incorporate investments in cleaner technology for its tugboats as a part of its harbor expansion activity.⁴⁶

Responsibility lies with each federal agency completing a determination to ascertain the appropriateness of offsets used to achieve general conformity. A recent action undertaken by the Corps – the federal agency most frequently endowed with this function – suggests that a new school of thought that expands upon the EPA guidance may prevail upon future decisions. Given the enormous scale of the activity, the deepening project currently underway at the Port Authority of New York and New Jersey requires the use of a number of approaches to offset the emissions associated with its construction. One of these approaches builds upon the Corps’ traditional mitigation efforts for watersheds, which, “first tries to mitigate on or near the impact site but allows for ‘offsite’ mitigation within the watershed.”⁴⁷ Applying this approach to the airshed, the project is investing in emissions improvements in the Staten Island ferry fleet – largely unassociated with the deepening effort – to achieve the necessary offsets. In keeping with

⁴³ EPA July 1994, p. 12.

⁴⁴ EPA July 1994, p. 15.

⁴⁵ EPA July 1994, p. 21.

⁴⁶ McGrath, James. Phone conversation with author November 25, 2003.

⁴⁷ Department of the Army, New York District, Corps of Engineers, “Memorandum for Commander, North Atlantic Division. Subject: Request for Air Quality Conformity Policy Guidance” December 4, 2002.

Corps policy, the costs for these upgrades are to be shared by the Corps and project sponsor.⁴⁸ Others argue, however, that the responsibility to offset project impacts to zero should be fully borne by the federal agency and not passed to the local sponsor (which may then in turn help inform the definition of “indirect impacts” discussed earlier in the paper).⁴⁹

While EPA guidance developed in 2002 to clarify the conformity determination for airports notes that “*de minimis* emission calculations should be in some way related to the design of the project/action”,⁵⁰ this modified approach achieves the desired effect of the legislation: to avoid a violation of the area’s air quality standards. It further serves to yield long-term and ongoing benefits for the region. The approach, which was developed in partnership with state air offices, port representatives, and the EPA regional office, signals a potential expansion of the understanding of offsets, and how and when they may be achieved to comply with the general conformity process.

Potential Solutions

Recommendation 8 – It is recommended that EPA consider issuing guidance on the conformity rule that encourages the investment in construction- or port-related technology that achieves long-term air quality benefits by making such emission gains applicable to the general conformity process. For example, the use of the attainment year as a guide for when impacts need to be offset might help to ensure long term benefits while giving the federal agency and local sponsor more time and latitude to develop a strategy that reduces impacts to zero. It is recommended that EPA evaluate if and how such guidance would support CAA goals and comply with existing legislation.

Recommendation 9 – It is recommended that EPA consult with Corps headquarters to ensure that an “airshed-wide” concept is reflected in new guidance, when applicable, thereby permitting projects to include offsets realized in activities that occur beyond the immediate port vicinity, as appropriate. EPA is currently considering expanding the area eligible for offsets to extend beyond the nonattainment area to adjacent areas of equal or higher classification.⁵¹ (Note that a “hot spot” or local analysis is often the more appropriate scale to evaluate carbon monoxide or PM impacts, whereas the “airshed-wide” concept is more applicable to estimating ozone impacts.)

4. Conclusion

A great deal of discontinuity is evident in the understanding and implementation of general conformity regulations. While all of the individuals consulted for this paper were largely knowledgeable about the process and its problematic aspects, many cited a widespread lack of general understanding about the regulation, its purpose, and its impacts among others in the port industry and the Corps, to varying degrees. In addition – despite significant recent and rapid gains in their understanding of the subject – many cited the inherent difficulty faced by the Corps, a water-oriented federal agency, to enforce air quality regulations. Finally, the increasing frequency of litigation based on the cumulative effects of indirect emissions was mentioned as potential cause for concern. Court settlements and legal rulings appear to be outpacing the federal government in clarifying the general conformity process. One of the most critical and closely-watched legal actions on the subject is currently pending – the Department of Transportation vs. Public Citizen. The case, argued before the U.S. Supreme Court on April 21, 2004,

⁴⁸ Tosi, Sam. Phone conversation with author December 1, 2003.

⁴⁹ Garrett, T.L. Comments provided to author, April 19, 2004.

⁵⁰ Federal Aviation Administration and US Environmental Protection Agency, “General Conformity Guidance for Airports: Questions and Answers”, September 25, 2002, p. 8. Available online at http://www.epa.gov/ttn/oarpg/conform/airport_qa.pdf.

⁵¹ Stonefield, David. Comments provided to author, February 12, 2004.

seeks to revolve the extent to which DOT is responsible for the environmental impacts associated with their permission of Mexican trucks to transport freight in the U.S. beyond the narrow border commercial zones to which they are currently confined. The Supreme Court decision (expected in July 2004) will help inform the definition and understanding of “indirect emissions” associated with federal actions, and is likely to affect the general conformity process for ports in the future.

In the absence of clearer information, ongoing legal and operational decisions made by courts, ports, and federal agencies invariably set precedent for future regulation. Failure to act soon and comprehensively to clarify guidelines and widely educate members of the port, Corps, and even EPA communities may potentially set a problematic precedent for future decisions.

References

Department of the Army, New York District, Corps of Engineers, “Memorandum for Commander, North Atlantic Division. Subject: Request for Air Quality Conformity Policy Guidance,” December 4, 2002.

EPA Office of Air Quality Planning and Standards, “General Conformity Guidance: Questions and Answers” July 13, 1994, p. 12. Available online at http://www.epa.gov/ttn/oarpg/conform/gcgqa_71394.pdf.

Federal Aviation Administration and US Environmental Protection Agency, “General Conformity Guidance for Airports: Questions and Answers”, September 25, 2002, p. 8. Available online at http://www.epa.gov/ttn/oarpg/conform/airport_qa.pdf.

Federal Register Vol. 58, No. 228, p. 63223, “Determining Conformity of General Federal Actions to State or Federal Implementation Plans; Final Rule,” November 30, 1993.