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HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON DC

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MEMORANDUM FOR ALMAJCOM/CEVs
HQ USAFA/CEV
11th WG/CEV

FROM: HQ USAF/ILEV
1260 Air Force Pentagon
Washington DC 20330-1260

SUBJECT: Air Conformity Guide

The Air Force recently completed an exhaustive revision of its *Air Conformity Guide* (Atrch). The guide assists managers in understanding and complying with the general conformity requirements of the Clean Air Act (CAA). It also discusses conformity as it relates to the Environmental Impact Analysis Process/National Environmental Policy Act (EIAP/NEPA), CAA Title V operating permits, and Base Realignment and Closure (BRAC). We recommend the widest distribution of this guide to the installation. The guide can be downloaded from the Air Force Environmental Quality Web page <https://www.il.hq.af.mil/ile/ilev/ilevq.cfm>.

If you or the members of your staff have any questions, please contact Mr. Alan Waite, HQ USAF/ILEVQ, DSN 327-0192, e-mail: alan.waite@pentagon.af.mil.

A handwritten signature in black ink that reads "Patrick R. Daly".

PATRICK R. DALY, Colonel USAF
Chief, Environmental Division
DCS/Installations & Logistics

Attachment:
Air Conformity Guide

cc:
HQ AFCESA/CC
HQ AFCEE/CC
HQ AFIT/CEV
AFCEE/CCR-A/D/S

United States Air Force Conformity Guide



United States Air Force Conformity Guide



July 2003

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NOTATION

The following is a list of the acronyms, initialisms, and abbreviations (including units of measure) used in this guidance.

ACRONYMS, INITIALISMS, AND ABBREVIATIONS

ACAM	U.S. Air Force Air Conformity Applicability Model
AFCEE/EC	Air Force Center for Environmental Excellence, Environmental Conservation and Planning Directorate, Brooks City-Base, Texas
AFI	Air Force Instruction
AFIERA/RSQ	Air Force Institute of Environment, Safety and Occupational Health Risk Analysis
AFLSA/JACE	Air Force Legal Services Agency, Environmental Law and Litigation Division
AFRL/MLQ	Air Force Research Laboratory, Airbase Technologies Division
AGE	aerospace ground equipment
AGEEE	Aircraft Generation Equipment Emissions Estimator
APIMS	Air Program Information Management System
AQMP	Air Quality Management Plan
ARB	Air Reserve Base
BRAC	Base Realignment and Closure
BX	base exchange
CAA	Clean Air Act
CATEX	categorical exclusion
CEQA	California Environmental Quality Act of 1970
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	<i>Code of Federal Regulations</i>
CO	carbon monoxide
DENIX	Defense Environmental Network Information Exchange
EA	environmental assessment
EDMS	Emission Dispersion Modeling System
EIAP	Environmental Impact Analysis Process
EIS	environmental impact statement
EO	Environmental Office
EPA	U.S. Environmental Protection Agency
FAA	Federal Aviation Administration
FEIS	final environmental impact statement
FONSI	Finding of No Significant Impact
HQUSAF/ILE	Headquarters, Department of the Air Force, Office of the Civil Engineer

HQUSAF/ILEV	Headquarters, Department of the Air Force, Office of the Civil Engineer, Installations and Logistics, Environmental Division
MAJCOM	Major Command
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO ₂	nitrogen dioxide
NO _x	oxides of nitrogen
NSR	New Source Review
O ₃	ozone
Pb	lead
PM ₁₀	particulate matter with an aerodynamic diameter of 10 µm or less
PM _{2.5}	particulate matter with an aerodynamic diameter of 2.5 µm or less
PSD	Prevention of Significant Deterioration
REO	Regional Environmental Office
ROD	Record of Decision
RONA	Record of Nonapplicability
SAF/GCN	Department of the Air Force, Deputy General Counsel for Installations and Environment
SAF/IEE	Deputy Assistant Secretary of the Air Force for Environment, Safety and Occupational Health
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SOW	Statement of Work
URBEMIS	Urban Emissions Model
URL	uniform resource locator
USAF	United States Air Force
USC	<i>United States Code</i>
VOC	volatile organic compound

UNITS OF MEASURE

ft	foot(feet)	ppm	part(s) per million
km	kilometer(s)	yr	year(s)
m ³	cubic meter(s)	µg	microgram(s)
ton	short ton(s)		

1 BACKGROUND

1.1 PURPOSE

This guidance provides assistance in understanding and complying with the general conformity requirements of the Clean Air Act (CAA).¹ In addition, it discusses conformity as it relates to the Environmental Impact Analysis Process/National Environmental Policy Act (EIAP/NEPA), CAA Title V operating permits, and Base Realignment and Closure (BRAC).

Applicability

General conformity will apply only if the action is taking place in a nonattainment or maintenance area.

1.2 STATUTORY AND REGULATORY FRAMEWORK

The CAA requires that the U.S. Environmental Protection Agency (EPA) establish a list of pollutants that “may reasonably be anticipated to endanger public health and welfare,” develop criteria documents detailing the effects of these pollutants, and set primary (health-related) and secondary (welfare-related) National Ambient Air Quality Standards (NAAQS) to protect the public from the adverse impacts of these criteria pollutants. (Table 1.1 lists the NAAQS.) For a given pollutant, there can be several standards with different averaging times, most commonly short-term standards for periods of 24 hours or less and long-term annual standards. State or Tribal ambient standards must be at least as stringent as the NAAQS. There are six criteria pollutants: sulfur dioxide (SO₂), particulate matter (PM₁₀ and PM_{2.5}; particulate matter with an aerodynamic diameter of 10 and 2.5 μm or less, respectively), nitrogen dioxide (NO₂), carbon monoxide (CO), ozone (O₃), and lead (Pb). The EPA designates areas where air quality does not meet one of the NAAQS as nonattainment areas for that pollutant. These designations are usually based on measured air quality. In a nonattainment area, the responsible agency must develop a State Implementation Plan (SIP)² demonstrating how it will attain and maintain the NAAQS. The Regional EPA office approves the SIP. Previously nonattaining areas where the air quality has improved to meet the NAAQS have been designated maintenance areas and are subject to an air quality maintenance plan.

Section 176(c) of the CAA prohibits federal departments, agencies, and instrumentalities from taking various actions in nonattainment or maintenance areas unless they first demonstrate conformity with the SIP. Executive Order 12088, *Federal Compliance with Pollution Control Standards*, further requires federal agencies to comply with the CAA (U.S. President 1978). Conformity applies only to criteria pollutants or their precursors. The CAA separated conformity

¹ There are two programs for assuring conformity: general and transportation. This guide uses the term “conformity” to mean “general conformity.” Technical terms associated with air quality and conformity are defined in the Glossary (see Chapter 7).

² An implementation plan is generally the SIP but may also be a Federal or a Tribal Implementation Plan. This guide adopts the common practice of referring to the applicable plan as the SIP.

TABLE 1.1 National Ambient Air Quality Standards (NAAQS)^a

Pollutant	Averaging Time	Ambient Standard ^b	
		Primary ^c	Secondary ^d
SO ₂	3 hours	– ^e	0.5 (1,300)
	24 hours	0.14 (365)	–
	Annual	0.030 (80)	–
NO ₂	Annual	0.053 (100)	0.053 (100)
CO	1 hour	35 (40,000)	–
	8 hours	9 (10,000)	–
Ozone	1 hour	0.12 (235)	0.12 (235)
	8 hours ^f	0.08 (157)	0.08 (157)
PM ₁₀	24 hours	150	150
	Annual	50	50
PM _{2.5}	24 hours ^f	65	65
	Annual ^f	15	15
Pb	Calendar quarter	1.5	1.5

^a Methods of determining whether standards are attained depend on the pollutant and the averaging time. See the *Code of Federal Regulations*, Title 40, Part 50 (40 CFR Part 50) for details.

^b Standards for gases are given in ppm with $\mu\text{g}/\text{m}^3$ in parentheses. Standards for particulates and lead are in $\mu\text{g}/\text{m}^3$.

^c Primary (health-based) standard.

^d Secondary (welfare-based) standard.

^e A dash indicates no standard.

^f Nonattainment areas have not been designated, and states have not developed implementation plans.

into “transportation conformity” for federal highway and transit actions and “general conformity” for all other federal actions. The responsibility for assuring conformity lies with the head of the federal entity taking the action, not with the EPA or the states. Conformity means that a federal action must not cause or contribute to a new violation of any NAAQS, increase the frequency or severity of any existing violation, or delay timely attainment of any standard, emission reduction target, or other milestone in the SIP. In 1993, the EPA issued general conformity regulations in Part 93, Subpart B, and Part 51, Appendix W, of Title 40 of the *Code of Federal Regulations* (40 CFR 93 Subpart B and 40 CFR 51 Appendix W) that detail the procedures and criteria for determining whether a federal action conforms to a SIP.³ The regulations apply to proposed federal actions located in nonattainment or maintenance areas that would cause emissions of criteria pollutants to increase above specified amounts.

New PM_{2.5} and Ozone Standards

The process of identifying nonattainment areas for the new PM_{2.5} and 8-hour ozone standards is ongoing. The EPA will be issuing revisions to its rules for preparing SIPs to meet these standards. These revisions will address conformity requirements for the new standards. Additional information is provided in Section 4.1.

Regardless of compliance with other environmental regulations, failure to satisfy the requirements of the conformity rule can, by itself, prohibit a U.S. Air Force (USAF) action from moving forward. Thus, the conformity process should begin early enough in the planning process to avoid delaying implementation of the action. Conducting the conformity process in tandem with the EIAP provides for timely consideration of conformity requirements (see Section 3.1). The EIAP implements NEPA and adds USAF-specific requirements to the regulation implementing NEPA.

Complying with the conformity requirements does not exempt an action from the responsibility of complying with other parts of the SIP, other air regulatory requirements, EIAP/NEPA, or any other state or federal program.

1.3 AIR FORCE ACTIVITIES AND RESPONSIBILITIES

This section summarizes the conformity-related activities and responsibilities of various organizations within the USAF. The Deputy Assistant Secretary of the Air Force, the Major Command (MAJCOM), the Air Force Center for Excellence (AFCEE), and the installation all have responsibilities for conformity; however, every responsible organization is not involved in every conformity analysis.

³ The regulations at 40 CFR 51 Subpart B were interim regulations that applied to federal actions in nonattainment and maintenance areas until an EPA-approved General Conformity SIP rule became effective for the area. Most jurisdictions have EPA-approved General Conformity SIP rules today. For simplicity’s sake, this guide cites the 40 CFR 51 Appendix W regulations that required those local SIP rules.

1.3.1 The Deputy Assistant Secretary of the Air Force for Environment, Safety and Occupational Health (SAF/IEE)

Approves all conformity determinations.

1.3.2 The General Counsel for Installations and Environment (SAF/GCN)

Provides advice to SAF/IEE on general conformity determinations. Provides advice to the Air Staff and field activities on general conformity policy, as applicable, regarding the closure of Air Force Installations and the acquisition of weapons systems.

1.3.3 Headquarters, Department of the Air Force, Office of the Civil Engineer, Installations and Logistics, Environmental Division (HQUSAF/ILEV)

Reviews conformity determinations for completeness and consistency with USAF Policy Guidance prior to SAF/IEE approval.

Provides guidance and policy direction regarding preparation of conformity determinations.

1.3.4 Air Force Legal Services Agency, Environmental Law and Litigation Division (AFLSA/JACE)

Advises the Civil Engineer and, upon request, the MAJCOM legal officer on compliance issues related to implementation of the General Conformity regulatory requirements.

1.3.5 Major Command (MAJCOM)

Each MAJCOM manages the conformity process within its command.

Each MAJCOM provides consistency amongst its installations.

1.3.6 Air Force Center for Environmental Excellence, Environmental Conservation and Planning Directorate, Brooks City-Base, Texas (AFCEE/EC), Regional Environmental Office (REO), and The Air Force Institute of Environment, Safety and Occupational Health Risk Analysis (AFIERA/RSQ)

Provides technical consultations and resources for conformity determinations.

Provides help with contracting for assistance with conformity determinations.

Provides liaison and coordination with the regional EPA, State, and Tribal Air Quality Officials regarding SIP emission budgets, conformity applicability, and other air quality issues.

Responsible for maintaining all installation baseline emissions inventories.

Provides technical assistance in estimating emissions from major source facilities.

1.3.7 Installation-Level Activities and Responsibilities

The Environmental Office (EO) acts as the central contact point for adequately defining, collecting, and collating project information from the various sources contacted throughout the conformity applicability/determination process. The EO should be aware of attainment status, major emissions source changes, and environmental documents for the purposes of conformity offsets and completeness.

2 CONFORMITY REQUIREMENTS

2.1 GENERAL

A conformity review is the multistep process used to determine and document whether a proposed USAF action meets the conformity rule. There are two main components to the overall process: an applicability analysis to determine whether a conformity determination is required and, if it is, a conformity determination to determine whether the action conforms to the SIP. These components and ancillary requirements, such as public participation, are discussed below. A brief overview of applicability and determination is presented, followed by a detailed discussion.

If it is reasonably certain early on that an action will require a conformity determination, the applicability analysis should be undertaken as a crucial first step in the conformity process so as to satisfy the criteria for conformity determinations under 40 CFR 93.159. Doing so will avoid the necessity of redoing calculations and inventories; once for applicability and again for the conformity determination.

2.2 APPLICABILITY ANALYSIS

Many USAF conformity reviews will find that conformity is satisfied because the action is exempt, clearly presumed to conform, or the action's projected emissions are below conformity applicability threshold values. The factual basis of any finding of nonapplicability must be documented and maintained as part of the administrative record for the action. Failure to document and maintain a record of a nonapplicability determination is tantamount to failure to conduct an applicability analysis; and failure to conduct an applicability analysis in most jurisdictions would be a SIP rule violation enforceable by private citizens and local, state, and federal regulators. Also, EIAP/NEPA may require documentation (Section 3.1), and EPA, state, or local regulators may review conformity actions. In addition, if a conformity determination is required, materials describing the methods and conclusions used in the applicability analysis can be requested during the public comment period (Section 2.3.3). Spreadsheet calculations, ACAM reports, the Record of Nonapplicability (RONA; with supporting calculations), and other relevant documentation can all serve as suitable documentation for a finding of nonapplicability.

2.2.1 Overview

The applicability analysis determines whether a conformity determination is required.

Figure 2.1 is a flowchart of the applicability analysis. Although the flowchart presents the analysis as a single process, different portions of composite actions can take different paths. For example, consider an action that involves a new stationary source subject to New Source Review (NSR) whose operation will be supported by new workers who will commute to work. The

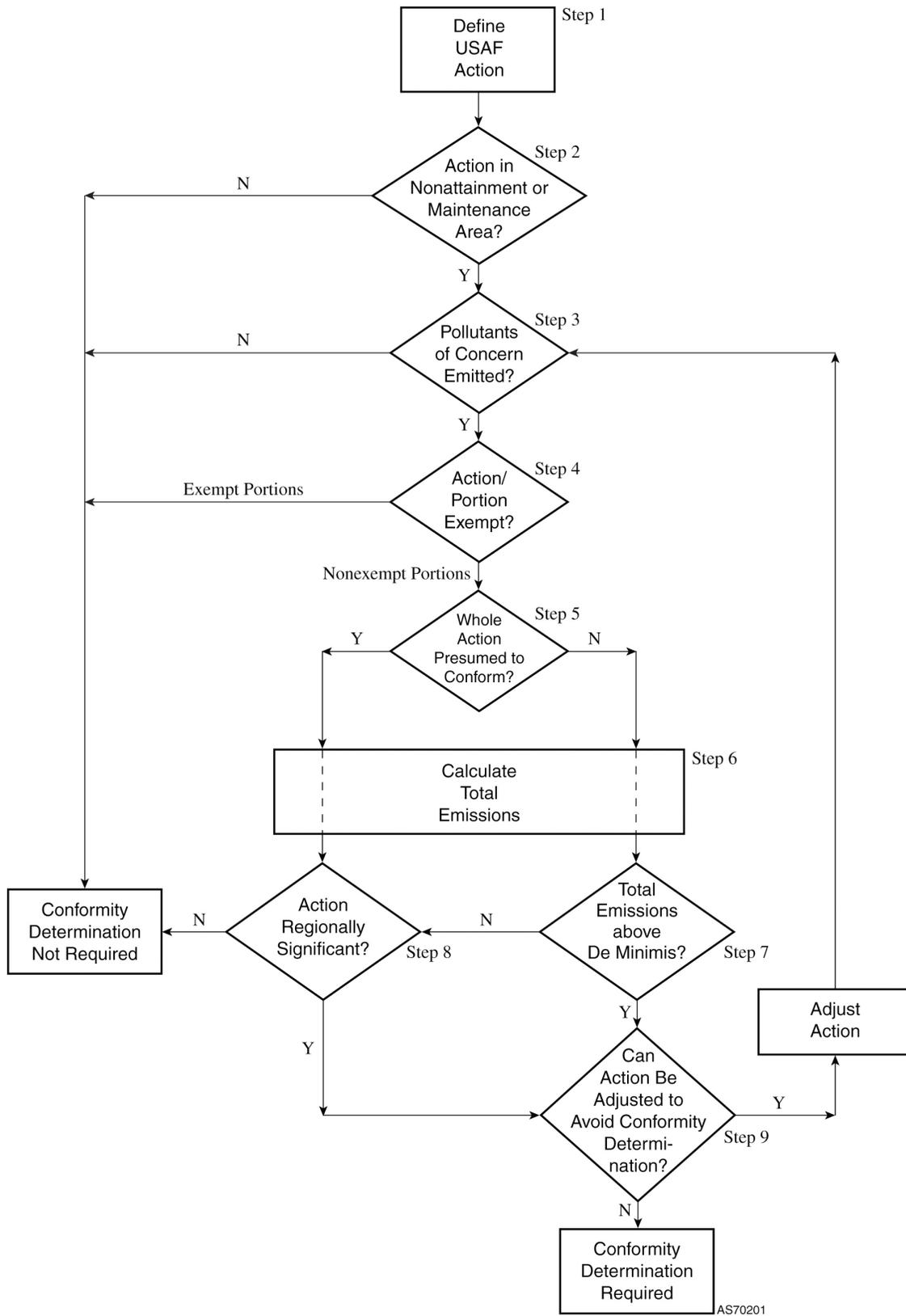


FIGURE 2.1 Flowchart of Applicability Analysis

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stationary source is exempt from conformity [Step 4 under CFR 93.153(d)(1)], but the indirect emissions from worker commutes are not. The de minimis and regional significance comparisons (Steps 7 and 8) need consider only the emissions from worker commutes.

2.2.2 Procedure

Step 1: Define the USAF Action. It is important to define the action properly. As discussed below, conformity requires consideration of both direct and indirect emissions, some of which might not be subject to air permitting procedures. For conformity purposes, the scope, schedule, timing, and location of all portions of the action must be determined. Actions with phased schedules or spatially separated parts cannot be segmented into smaller actions to avoid making a conformity determination. If needed, emissions must be calculated on an annual basis. Schedules should clearly indicate the years in which particular actions take place. These considerations can also be important if it is necessary to adjust the schedule of an action to keep annual emissions below conformity threshold values.

A small action is less likely to require a conformity determination than a larger action that includes the small action. However, larger actions cannot be segmented to avoid making a conformity determination. Unfortunately, there is no clear guidance for determining when two or more actions must be considered as portions of a single action for conformity purposes. In the absence of clear guidance, consideration should be given to whether one action is contingent upon another. That is, if one action would not be taken unless another is taken, then both actions should be considered as portions of a single action for conformity purposes.

Step 2: Determine Whether the Action Takes Place in a Nonattainment or Maintenance Area. If the action takes place in an attainment area, conformity does not apply. Whether actions in attainment areas would be subject to conformity was unclear early in the program. Congress amended Section 176(c) of the CAA in Section 305 of Public Law 104-59 to clarify that conformity applies only in nonattainment and maintenance areas. Even if indirect emissions associated with an action located in an attainment area occur in a nonattainment or maintenance area, conformity does not apply.

This determination is usually relatively easy. There are two parameters of interest: the area's attainment/maintenance status and, for ozone, CO, and PM₁₀ nonattainment areas, the associated severity class.⁴

⁴ Marginal, moderate, serious, and severe, or extreme for ozone, and moderate or serious for CO and PM₁₀.

Sources of nonattainment/maintenance information include the following:

- The local regulator or EPA Regional Office;
- The designations codified in 40 CFR 81, Subpart C; and
- The EPA's on-line Greenbook (<http://www.epa.gov/oar/oaqps/greenbk/index.html>).

The regulatory agencies generally have the latest information and should be aware of any pending changes. The codified designations are updated annually and thus may be dated. The EPA's Greenbook is generally current and has links to Regional Office contacts for each criteria pollutant.

Step 3: Determine Whether the Action Would Cause Emissions of Pollutants of Concern. General conformity requires analysis only of emissions of those criteria pollutants and their precursors for which the area is designated nonattainment or that are covered by a maintenance plan (pollutants of concern). If there are no emissions of pollutants of concern, a conformity determination is not required. For example, if an action is located in a PM₁₀ nonattainment area but causes only volatile organic compound (VOC) emissions, the conformity requirements are not applicable and no further analysis is required.

Step 4: Determine Whether the Action or a Portion Thereof Is Exempt. If the entire action is exempt, no conformity determination is required. If a portion of the action is exempt, the remainder of the action must still be evaluated. The categories of actions listed below are exempt from conformity requirements. Appendix A provides additional detail on the exemptions in 40 CFR 93.153 and examples likely to be associated with USAF actions. The complete list can be found in the accompanying *Federal Register* citations.

- Actions or portions thereof related to transportation plans, programs, and projects developed, funded, or approved under Title 23 of the *United States Code* (USC) or the Federal Transit Act, are subject to the requirements of transportation conformity. Such actions need not be considered part of the USAF action for purposes of general conformity [40 CFR 93.153(a)].
- Actions with no or clearly de minimis emissions [40 CFR 93.153(c)(2)].
- Actions having emissions that are not “reasonably foreseeable” (see Chapter 7, Glossary) [40 CFR 93.153(c)(3)].
- Actions that implement or carry out a conforming program [40 CFR 93.153(c)(4)].
- Actions or portions that are excluded from conformity requirements [40 CFR 93.153(d)].

Excluded actions or portions include:

1. The portion of an action that includes a major new or modified stationary source requiring a permit under the CAA NSR or Prevention of Significant Deterioration (PSD) programs;
2. Actions in response to natural disasters such as hurricanes and earthquakes or emergencies as defined in 40 CFR 93.152;
3. Research, investigations, studies, demonstrations, or training where no environmental detriment is incurred or the action furthers air quality research;
4. Alteration and additions of existing structures required by environmental legislation or regulations, such as scrubbers; and
5. Direct emissions from remedial and removal actions carried out under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and associated regulations.

Actions taken in response to natural disasters and emergencies must commence within hours or days of the incident and have special provisions for extending the exemption beyond six months [see 40 CFR 93.153 (d)(1) and (e)]. There are also additional requirements for the research and CERCLA exclusions [see Appendix A and 40 CFR 93.153 (d)(2) and (d)(5)].

Step 5: Determine Whether the Proposed Action as a Whole (or All Nonexempt Portions Not Screened Out in Step 4) Is Presumed to Conform. Under 40 CFR 93.153(f) and (g), federal agencies may specify actions that are presumed to conform. The set of specified actions could depend on the agency. Actions presumed to conform are exempt from conformity. There is no USAF list.⁵ Development of a list of actions presumed to conform can involve extensive analysis and must be proposed in the *Federal Register* for public comment. Responses to public comments must be documented before the final list is published in the *Federal Register*. The complete requirements for developing a list of actions presumed to conform can be found in 40 CFR 93.153(g) and (h).

An action presumed to conform must still be assessed for regional significance (Step 8), as provided in 40 CFR 93.153(j).

⁵ Since no agency has a presumed-to-conform list, there is no guidance on how actions with multiple portions will be handled. Until official guidance is available, the following approach is reasonable and conservative and consistent with CFR 93.153(f), which speaks of “actions” and not “portions.” To avoid segmentation, it is reasonable to assume that the action as a whole, not just its individual portions, would need to be on the list. Thus, an action with two portions, each individually presumed to conform, could not be presumed to conform unless the composite action were on the list.

Step 6: Estimate Net Total Direct and Indirect Emissions from the Action. To determine whether an action is de minimis or regionally significant, the total direct and indirect emissions of pollutants of concern must be calculated. The following points are important in determining the total:

- The maximum annual emissions form the basis of the analysis.
- The emissions are “net,” that is, emissions added by the action increase the total emissions while emissions removed by the action reduce the total.
- In calculating the total emissions, the portion of emissions that is exempt (Step 4) is not included in the total.
- Direct emissions are those that are caused or initiated by the USAF action and that occur at the same time and place.
- Indirect emissions are those that are caused by the USAF action but that may occur later in time and may be further removed in distance from the action but are still reasonably foreseeable and that the USAF can practicably have control over and will maintain control over because of a continuing program responsibility.

Annual emissions are those occurring during a calendar year. Emissions from activities occurring in different years need not be added when determining maximum annual emissions. Similarly, if a single activity occurs in fractions of two different years, only the emissions from the fraction occurring in a single year contribute to the emissions for that year. This consideration can be important when estimating annual emissions from short-term activities such as construction.

The use of net emissions can be important when replacements occur or the action shuts down or removes some sources. For example, if one flight squadron replaces another, only the difference in the associated direct and indirect emissions adds to the total. This difference could be small even when the total emissions associated with the new unit are large.

The exclusion of exempt emissions also reduces the total emissions. For example, if the action includes a new stationary source subject to NSR or PSD, its direct emissions would not be included in the total.

U.S. Air Force Air Conformity Applicability Model (ACAM)

The USAF developed ACAM as a screening tool for performing applicability analyses. It uses limited, base-specific information to calculate conformity-related emissions and potential conformity determination requirements for a proposed USAF action. The intended use is for comparing the potential conformity requirements of various scenarios. ACAM can be used to replace Steps 6 through 8 of this guideline’s procedures. ACAM output could be used to document a finding of nonapplicability. Additional details on ACAM are provided in Section 6. When the action involves sources not covered in ACAM, the guideline procedures should be used.

Indirect emissions must be caused by the USAF action, be reasonably foreseeable, and be practicably controllable by the USAF (see Chapter 7, Glossary). Typical indirect sources for USAF actions include privately owned vehicles used by employees for commuting, private entities that would not operate without the USAF action, vehicles associated with operation of indirect sources on the installation, material deliveries, indirect stationary sources not covered by NSR or PSD, and emissions from changes in the load on a central heating or steam plant. Commuter and material delivery emissions could be generated during both the construction and operations phases of an action. Consideration of all indirect emissions is not required even if they are caused by the action and are reasonably foreseeable. For example, increased commuter vehicle emissions should be included, since these are considered practicably controllable by the USAF through programs such as parking restrictions and ride-sharing incentives. On the other hand, trips to stores by workers and their families would not be included because the USAF has no practicable means of controlling these discretionary trips.

Sources To Be Included. Table 2.1 lists some sources to consider when performing an applicability analysis. For a particular action, some of the listed sources may be irrelevant or exempt, and additional unlisted sources may need to be included.

Although an action can be changed or modified to avoid making a conformity determination (Step 9), it cannot be segmented into separate smaller actions. EIAP/NEPA also have similar prohibitions against breaking a large action into smaller actions to avoid preparation of an environmental impact statement (EIS). A small action is less likely to require a conformity determination than a larger action that includes the small action. Unfortunately, there is no clear guidance for determining when two or more actions must be considered as portions of a single action for conformity purposes. In the absence of clear guidance, consideration should be given to whether one action is contingent upon another. That is, if one action would not be taken unless another is taken, then both actions should be considered as portions of a single action for conformity purposes.

Calculating Emissions. Current data and information to estimate direct and indirect emissions should be used and fugitive emissions should be included in the totals. 40 CFR 93.159(b) requires the use of the latest and most accurate emissions estimation techniques for conformity analyses:

- Motor vehicle emissions must be estimated using the most current version of the EPA motor vehicle emissions model [40 CFR 93.159(b)(1)].
- Nonmotor vehicle emissions must be estimated using the latest emissions factors from AP-42 (EPA 2002) unless more accurate emissions data are available [40 CFR 93.159(b)(2)].

Section 6 provides information on resources useful in calculating emissions.

TABLE 2.1 Typical Emissions Sources for Air Source Actions

Aircraft Operations

- Flying operations, including touch-and-goes (TGOs), landings and takeoffs (LTOs), climb-out and approach under 3,000 ft, taxiing, flybys, queuing
- Ground operations
- Other engine run-ups
- Refueling
- Arming and dearming
- Aerospace ground equipment (AGE)

Stationary Sources

- Fuel storage evaporative emissions and vehicle refueling emissions
- Surface coating (painting) operations, including architectural and runway coatings
- Repair and maintenance activities, including those for aircraft and vehicles
- Other industrial process operations such as metal plating, welding, and degreasing
- Jet engine testing
- Small arms and bombing ranges
- Incinerators
- Fire training exercises
- Heating and power production, including emergency generators
- Personnel housing (Visiting Officers Quarters, family housing)
- Support facilities (hobby shops, childcare, hospital)
- Open burning of vegetation

Construction

- Land clearing, including open burning of debris
- Building demolition
- Construction equipment (fugitive dust and exhaust)
- Facility construction, including painting and coating
- Fuel storage
- Asphalt paving and stripping of roadways and runways
- Material transport and handling

Mobile Sources

- Personally owned vehicles and buses
- Government-owned vehicles and on-the-job personal vehicle use
- Delivery vehicles and locomotives
- On- and off-road vehicles
- Lawn and garden equipment

Emissions from tenant activities (Reserve units, National Guard, Customs, Drug Enforcement Agency, etc.)

All emissions estimates should be realistic and technically defensible. The procedures and factors used in preparation of annual emissions inventories and permits would usually be acceptable for conformity but could need updating. Reasonable upper bounds can be used if specific factors are not available. Documentation of assumptions and methodology in a RONA is recommended (see Section 2.2.3). As the agency responsible for conformity review, the USAF has ultimate responsibility for determining acceptable emission calculation procedures. However, if there is doubt about the validity of methods, the local regulator or EPA Regional Office should be consulted.

Temporal Considerations. Emissions from an action may vary from year to year. A conformity applicability analysis must consider the maximum annual emissions associated with the action. If more than one pollutant is involved, the maximum emissions may occur in different years for different pollutants. For example, a new source of VOCs could have its maximum total PM₁₀ emissions during construction and its maximum total VOC emissions during a year of full operations with no construction activities.

To find the maximum annual emissions, it may be necessary to estimate the total direct and indirect emissions for the following:

- Each year of construction,
- Each year that construction and operations overlap, and
- Each year of operation.

It is not always necessary to perform all these calculations, since some years can be eliminated from consideration as having total emissions clearly less than those in another year. Similarly, if operations were anticipated to be constant, total direct and indirect emissions from operations would only need to be estimated for the first full year of operations.

Step 7: Compare the Maximum Annual Total Emissions to De Minimis Levels. For each pollutant of concern, the maximum total net annual emissions must be compared with the de minimis threshold values specified in 40 CFR 93.153(b)(1) and (b)(2). These emission rates are often referred to as de minimis levels or thresholds and are presented in Table 2.2. The rates depend on the pollutant; whether the area is classified as nonattainment or maintenance; if nonattainment, the severity of the nonattainment; and whether the area is in an ozone transport region. If the total emissions equal or exceed the de minimis levels, consideration should be given to adjusting the action to avoid making a conformity determination (Step 9). Although it is unlikely that an action with emissions below de minimis is regionally significant, such an action must still be evaluated for regional significance (Step 8).

Step 8: Determine Whether the Action Is Regionally Significant. If the action has emissions below the de minimis levels, or is presumed to conform, it could still be regionally significant; that is, its emissions could equal or exceed 10% of the emissions of one or more pollutants of concern in the nonattainment or maintenance area [40 CFR 93.153(h)(4)(i)].

TABLE 2.2 General Conformity De Minimis Levels (Thresholds)

Criteria Pollutant	Area Classification	Pollutant of Interest	Ozone Transport Region ^a	De Minimis Level (tons/yr)		
Ozone	Extreme nonattainment	VOC or NO _x	NA ^b	10		
	Severe nonattainment	VOC or NO _x	NA	25		
	Serious nonattainment	VOC or NO _x	NA	50		
	Marginal/moderate nonattainment		VOC or NO _x	Outside	100	
			VOC	Inside	50	
			NO _x	Inside	100	
			Maintenance	NO _x	NA	100
				VOC	Inside	50
			VOC	Outside	100	
	CO, SO ₂ , NO ₂	Nonattainment	CO, SO ₂ , NO ₂	NA	100	
Maintenance		CO, SO ₂ , NO ₂	NA	100		
PM ₁₀	Serious nonattainment	PM ₁₀	NA	70		
	Moderate nonattainment	PM ₁₀	NA	100		
	Maintenance	PM ₁₀	NA	100		
Pb	Nonattainment	Pb	NA	25		
	Maintenance	Pb	NA	25		

^a Section 184 of the CAA defines a single ozone transport region consisting of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and the Consolidated Metropolitan Statistical Area around the District of Columbia.

^b NA = not applicable.

Source: 40 CFR 93.153(b)(1) and (2).

First, the total emissions of pollutants of concern in the area should be determined. The area's emissions should be based on the latest available inventory data, not necessarily the inventory in the SIP, and should include emissions from point, area, and mobile (both road and nonroad) sources. Consultation with the state or local regulator provides the preferred means for determining these emissions. The EPA's on-line emission inventories (see text box on next page) provide alternative sources for emissions information; these inventories however, are not necessarily the same as those maintained by state and local agencies.

It may not be necessary to determine the total emissions in the nonattainment or maintenance area. If any portion of the area inventory exceeds the action's total emissions of the pollutant(s) of concern by a factor greater than 10, the action would not be regionally significant for that pollutant. For example, if a de minimis action were being evaluated for regional

significance for NO_x and a single facility in the area had more than 10 times the action's maximum total annual emissions, the action would not be regionally significant for NO_x. Regardless, the project file supporting the RONA must contain sufficient detail to support the not-regionally-significant conclusion. Documentation that would lead a reasonable uninformed reviewer to conclude that the action's emissions are not regionally significant must precede the RONA.

Once the area's emissions (or an appropriately large subtotal) have been determined, it is recommended that they be documented. If the action is regionally significant, consideration should be given to adjusting the action to avoid making a conformity determination (Step 9). If the action is not regionally significant, a conformity determination is not required and the analysis can be terminated.

EPA On-Line Emissions Inventories

The AirData Web site (<http://www.epa.gov/air/data/geosel.html>) provides facility (not area or mobile) emissions at various levels of geographic aggregation, including the county level. County-level reports can be run for all criteria pollutants and provide countywide totals.

Point, area, on-road, and nonroad emissions are available in files that can be downloaded from ftp://ftp.epa.gov/EmisInventory/net_99v15/criteria/datafiles. These files are in Access 97 format, and the user must know which fields contain the data of interest.

Step 9: Determine Whether the Action Can Be Adjusted to Avoid a Conformity Determination. Making a conformity determination should be avoided if possible. If the action has emissions above de minimis levels or is regionally significant, a conformity determination may be required. It is permissible to adjust the action to avoid conformity. It is not permissible to break the action into small pieces (segment the action) to avoid conformity.

Adjustments can include adding controls or increasing their efficiencies, assessing the action for pollution prevention opportunities, rescheduling different phases of the action to keep emissions in each calendar year below threshold levels, and extending construction schedules to reduce annual emissions. In developing potential adjustments, the approaches, practices, and standard operating procedures already being employed in the area should be considered, even if they would not be required for the action by regulation. Adjustments introduced to keep emissions below thresholds must be included in the final design and execution of the action. If the action cannot be adjusted to keep the maximum total annual emissions below the threshold levels, a conformity determination would be required.

2.2.3 Documentation of Nonapplicability

As discussed previously, the factual basis for a finding of nonapplicability must be documented and maintained as part of the administrative record for the action. At a minimum, the federal Administrative Procedures Act requires a reviewable record of an agency's environmental-related decision making at the time the decision is made, not afterwards. Also, failure to document an applicability analysis or determination under the CAA is tantamount to failure to conduct one, which leaves the door open for regulatory or citizen-suit enforcement. In this regard, Air Force Instructions (AFIs) AFI 32-7040 *Air Quality Compliance* and AFI 32-7061

Environmental Impact Analysis require sufficient documentation for compliance purposes. A finding of nonapplicability must be documented along with the rationale for the finding. Depending on the situation, this could be accomplished as part of a categorical exclusion (CATEX) document if one is prepared, on Air Force Form 813, on Air Force Form 332, on U.S. Department of Defense Form 1391, or by using the RONA as described below. It is recommended that the decision on documenting the finding of nonapplicability be coordinated with the MAJCOM.

Adequate documentation includes the following:

- A description of the proposed action, and
- Adequate documentation to support the conclusion that conformity does not apply.

Adequate documentation could include spreadsheet calculations, U.S. Air Force Air Conformity Applicability Model (ACAM) reports, the RONA (with supporting calculations), emissions calculations with references, regional emissions used in significance tests, and other documents related to determining an action's status as "exempt" or "clearly de minimis." Appendix B presents a RONA form that could be used to document the conclusion. Its use is not required. If used, it should be retained at the installation for a period of five years after signature.

2.3 CONFORMITY DETERMINATION PROCESS

If the applicability analysis finds the action is subject to conformity, the USAF must determine whether the action conforms to the applicable SIP.

As noted above, if it is known early on that an action will require a conformity determination, the applicability analysis should be viewed as a crucial first step in the conformity process. For such significant actions, the emissions would be calculated in a manner satisfying the requirements of 40 CFR 93.159, and thus be acceptable for the conformity determination. In addition, it is recommended that the other tasks discussed in this section be started as early in the process as possible.

2.3.1 General

The conformity determination process demonstrates how an action would comply with

Conformity Determination Process

In addition to satisfying documentation, notification, and consultation requirements, the key elements in the conformity determination process include selection of the conformity determination criteria, conducting a conformity analysis, identification of mitigation measures, including offsets, and preparation of draft and final conformity determinations.

Conformity Determination Criteria: Criteria for determining whether the total direct and indirect emissions of pollutants of concern conform to the applicable SIP.

Conformity Analysis: The analysis used to demonstrate conformity. Air quality modeling may be required.

Conformity Determination: Written finding that the action would conform to the SIP. Process includes a 30-day comment period on the draft determination.

the applicable SIP and must be completed before initiating the action. Since the process includes agency and public notification and comment response requirements and may require extensive analysis, including air quality modeling, it is important to begin the conformity determination process early enough to avoid delaying an action.

In the context of EIAP/NEPA, the conformity determination process need only be conducted for the proposed action or alternative that is actually approved, permitted, or funded by the USAF (Question 4, *Interface between Conformity Rule and NEPA* [EPA 1994]). Normally, this would be the preferred alternative in an environmental assessment (EA) or an EIS.

2.3.2 Procedure

Figure 2.2 is a flowchart of the conformity determination process.

Initial Consultations and Contracting. In addition to base personnel responsible for the action, those involved in assessing impacts for EIAP/NEPA, and those responsible for assessing air impacts, it is recommended that appropriate USAF offices be notified and consulted as soon as possible after identifying the need for a conformity determination. These include:

- The applicable MAJCOM for technical assistance and experience,
- USAF/ILEV for compliance issues and experience with actions of similar scope,
- AFLSA/JACE,
- SAF/IEE, and
- SAF/GCN.

Appropriate regulatory agencies should also be consulted:

- State or local agencies for inventories and selection of conformity determination criteria;
- The local Metropolitan Planning Organization (MPO) if traffic or demographic data are needed; and
- The EPA Regional Office(s).

Although the USAF is not required to contact the EPA until a draft conformity determination has been completed, the Regional Office may have useful information and guidance.

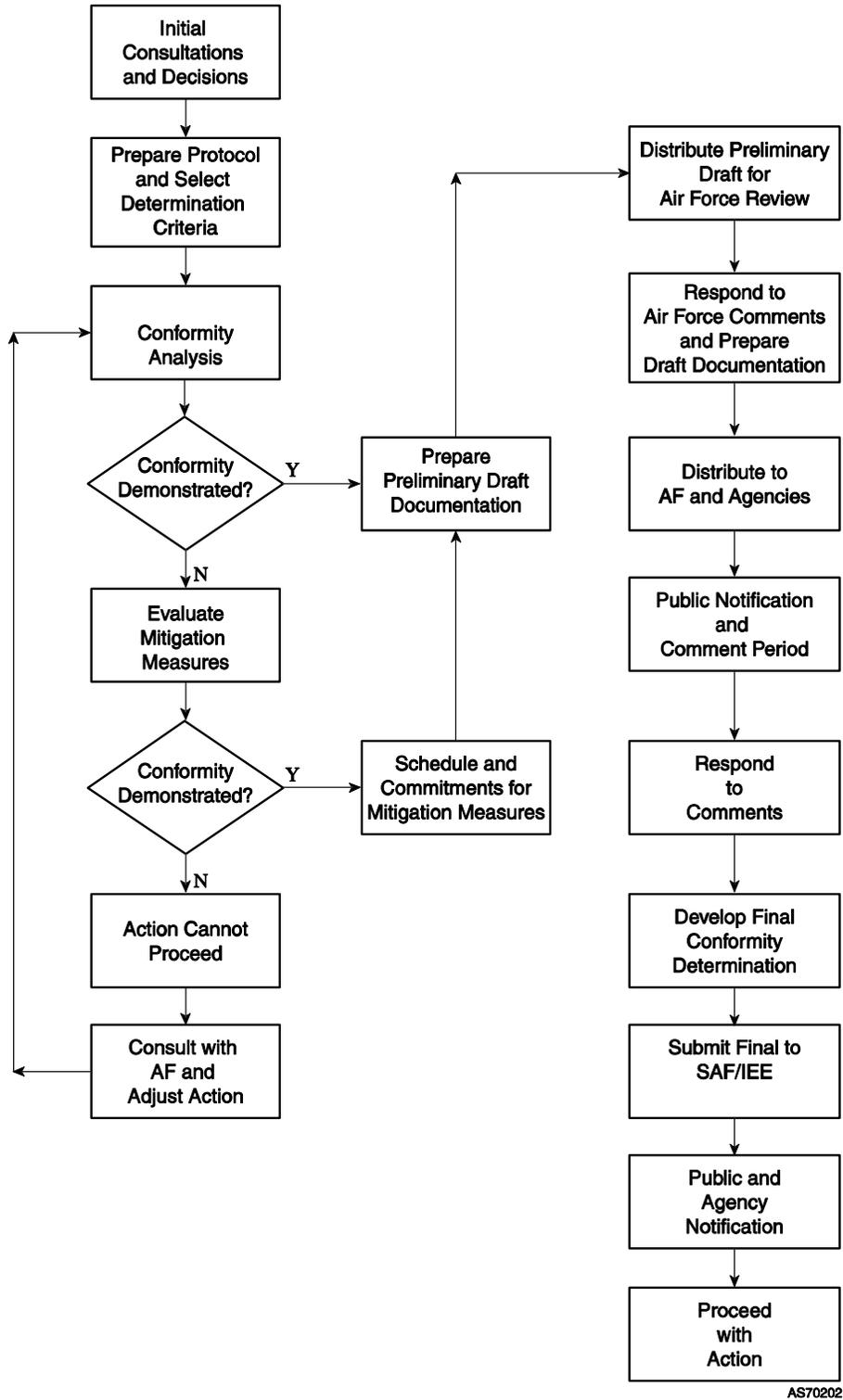


FIGURE 2.2 Flowchart of the Conformity Determination Process

Given the extent of the conformity analysis (possibly including modeling) and the time required, contractor assistance may be needed for the conformity determination process. The decision on contractor support should be made early, since procuring a contractor may extend the overall schedule. Appendix C provides a sample Statement of Work (SOW) for use as a basis for developing a suitable SOW for a conformity contractor.

Prepare Analysis Protocol and Select the Conformity Determination Criteria. It is recommended, but not required, that a protocol for the analysis be prepared and coordinated with MAJCOM, regulatory agencies, and the MPO prior to beginning the analysis. Appendix D contains a sample protocol. The protocol should identify the internal and external agencies that need to be involved, the data needed to support the analysis, potential sources of that data, and the personnel responsible for performing the analysis. In addition, the following technical areas should be addressed:

- Sources to be included in the analysis;
- Analysis years;
- Emissions factors, their sources, and emissions models;
- Pollutants for which analysis is required and corresponding applicability thresholds;
- The specific conformity determination criteria along with regulatory citations and the approach to be used in demonstrating that the criteria have been met;
- A discussion of the general SIP consistency requirement; and
- A specification of SIP emissions budgets, if available.

Two sets of criteria must be met to show that an action conforms to the SIP:

- A consistency requirement that the total direct and indirect emissions of pollutants of concern are consistent with or in compliance with all relevant requirements and milestones in the SIP [40 CFR 93.158(c)], and
- One of the criteria specified in 40 CFR 93.158(a) (Tables 2.3 and 2.4).

The consistency requirement is quite broad and must be met for all conformity determinations. It could include demonstrating that all emissions milestones in reasonable further progress schedules would be met when the action is included, that applicable emissions limits would be met, and that applicable work practice standards would be met. Additional emissions calculations may be required for years not covered when the conformity analysis was conducted.

40 CFR 93.158(a) specifies eight additional criteria, one of which must be met in addition to the consistency requirement to demonstrate conformity with the SIP. The criteria are complex and are summarized in Tables 2.3 and 2.4; the full text of the regulations should be consulted for all pertinent details. As shown in Table 2.3, only some of the criteria may be used for demonstrating conformity for a particular pollutant. Any one or any combination of these methods can be used in a conformity analysis. It is recommended that the choice of criteria as well as the methods and measures for demonstrating that they have been met be made in consultation with the regulators.

The simplest means of demonstrating conformity is for the total emissions from the action to be accounted for in the SIP. Such a determination may be difficult⁶ unless the installation has worked closely with the responsible agency to incorporate expected growth

TABLE 2.3 Conformity Determination Criteria^a

Criterion	Criteria Pollutant						40 CFR 93 Reference
	Pb	CO	O ₃	PM ₁₀	SO ₂	NO ₂	
1	X	X	X	X	X	X	158(a)(1)
2			X			X	158(a)(2)
3A	X	X		X	X		158(a)(3)(i)
3B	X	X		X	X		158(a)(3)(ii)
4A		X		X			158(a)(4)(i)
4B1		X		X			158(a)(4)(ii)
4B2		X		X			158(a)(4)(ii)
5			X			X	158(a)(5)

^a All criteria cannot be used for each pollutant. For a given pollutant, only those criteria indicated by an X can be used. Table 2.4 gives a summary of the requirements of each criterion.

Source: 40 CFR 93.158, Subpart B.

⁶ At the time this guide was written, the lack of detail in specifying what is included in the source categories in SIP emissions budgets made it difficult to determine whether the emissions from a particular action were included in the SIP budget. This is particularly true for ground support equipment and construction equipment often associated with USAF actions. In addition, as is often true for aircraft, the methods used to develop SIP emissions may differ from those used in the detailed inventories developed for a particular action.

TABLE 2.4 Summary of Conformity Determination Criteria

Criterion	Summary
1	Total emissions specifically identified and accounted for in SIP budget [40 CFR 93.158(a)(1)].
2	Total emissions fully offset within the area [40 CFR 93.158(a)(2)].
3A	Areawide and local air quality modeling of total emissions satisfy Sec. 158(b) [40 CFR 93.158(a)(3)(i)].
3B	Local air quality modeling of total emissions satisfies Sec. 158(b) and the action satisfies one of the requirements of Criterion 5 [40 CFR 93.158(a)(3)(ii)].
4A	Responsible agency determines that areawide modeling is not needed and local air quality modeling of total emissions satisfies Sec. 158(b) [40 CFR 93.158(a)(4)(i)].
4B1	Responsible agency determines that local modeling is not needed and areawide modeling of total emissions satisfies Sec. 158(b) [40 CFR 93.158(a)(4)(ii)].
4B2	Responsible agency determines that local modeling is not needed and the requirements of Criterion 5 have been met. No modeling is required [40 CFR 93.158(a)(4)(ii)].
5A	If the EPA has approved a revision to the SIP or maintenance demonstration after 1990, the state determines that total emissions from the action plus all other emissions in the area will not exceed the emissions budgets in the SIP; or if an emissions budget is exceeded, the state governor makes a written commitment to the EPA to satisfy certain requirements, including SIP revisions that would achieve the required emissions reductions prior to commencing the USAF action [40 CFR 93.158(a)(5)(i)]; or
5B	The action or portion, as determined by the MPO, is specifically included in a current conforming transportation plan [40 CFR 93.158(a)(5)(ii)]; or
5C	The action or portion fully offsets its emissions within the area through a SIP revision or other enforceable measures so that there is no net increase in emissions [40 CFR 93.158(a)(5)(iii)]; or
5D	If the EPA has not approved a revision to the SIP or maintenance demonstration since 1990, the total emissions from the action do not increase total emissions with respect to baseline emissions [40 CFR 93.158(a)(5)(iv)]; or
5E	The action involves regional water or wastewater projects sized to meet only the needs of population projections in the SIP [40 CFR 93.158(a)(5)(v)].

Source: 40 CFR 93.159, Subpart B.

estimates in SIP revisions. To ensure that emissions budgets are included and identifiable in future SIP emissions budget revisions, particular attention should be paid to ensuring that SIP emissions budgets do the following:

- Identify specific categories associated with anticipated USAF actions, including construction equipment, ground support equipment, and USAF aircraft operations; and
- Use the same emissions estimation procedures and input data, such as aircraft operation cycles, expected to be used when emissions are calculated for anticipated actions.

Offsets are emission reductions that are quantifiable, consistent with the SIP attainment and reasonable further progress demonstrations, surplus to the reductions required by other applicable SIP provisions, implemented through a SIP revision or similarly enforceable measure, and permanent within the timeframe of the action. To demonstrate conformity using offsets, the total direct and indirect emissions from the action must be fully offset within the area so that there is no net increase in emissions of the pollutants of interest. Offsets could involve non-USAF entities, but could also involve other USAF installations in the same area. Obtaining offsets and demonstrating consistency with the requirements may be difficult. However, if they can be obtained, modeling may be avoided.

Modeling is likely to be the most difficult and complex means of demonstrating conformity. Modeling must show that the action does not cause or contribute to new violations, increase the frequency or severity of existing violations, or adversely affect the progress of reaching attainment goals. Contracting with professional modelers is recommended for all but the simplest actions.

Although the USAF has the ultimate responsibility for determining which criteria will be used, some criteria require decisions by the responsible agency.⁷ As noted above, even if such decisions are not required, early consultation with the EPA Regional Office and/or the regulatory agency is recommended to discuss selection of criteria, models, and other input data that may be required during the determination process.

Perform the Conformity Analysis. Once the conformity determination criteria have been selected, the analysis can be performed. The conformity regulations include procedures and requirements for conducting a conformity analysis. These requirements are contained in 40 CFR 93.159 and cover the following:

- Planning assumptions [40 CFR 93.159(a)],
- Emissions estimates [40 CFR 93.159(b)],

⁷ The responsible agency is the agency primarily responsible for the SIP.

- Air quality modeling [40 CFR 93.159(c)], and
- Years for which analyses are required [40 CFR 93.159(d)].

Brief summaries of these requirements follow. 40 CFR 93.159 should be consulted for details.

Planning Assumptions. The analysis must be based on the latest planning assumptions for population, employment, and travel approved by the MPO or other relevant agency. Revisions are allowed if approved by the authorized agency.

Emissions Estimates. The analysis must be based on the latest and most accurate emissions techniques unless such techniques are inappropriate and written approval has been obtained from the EPA Regional Administrator. At the time of this writing, these techniques are as follows:

- AP-42 (EPA 2002) for nonmotor vehicle sources unless more accurate data are available;
- TANKS 4.09b, which implements AP-42 procedures for storage tanks;
- MOBILE6 for onroad vehicles; and
- NONROAD for nonroad vehicles.

Section 6 provides links to Web sites that should have the latest EPA versions of these and other resources, including emissions inventory guidance for stationary and mobile sources from the AFIERA/RSQ. Consultation with the appropriate regulatory agencies that may have their own preferred methods for estimating emissions is suggested. For example, EMFAC2000 is the model of choice for mobile source emissions in California.

**Emissions and Dispersion Modeling System
(EDMS)**

The Emissions and Dispersion Modeling System (EDMS) developed jointly by the Federal Aviation Administration (FAA) and the USAF estimates emissions from some, but not necessarily all, source categories associated with USAF actions and models the air quality impacts of these emissions. Section 6 provides additional information on EDMS.

Air Quality Modeling. Air quality modeling must conform to the requirements specified in the most recent version of the EPA's *Guideline on Air Quality Models* (40 CFR 51, Appendix W), unless written approval is obtained from the Regional Administrator. The latest *Guideline* is available at <http://www.epa.gov/scram001/guidance/guide/>.

Analysis Years. The analysis must cover the following years:

- The year mandated for attainment by the CAA or the last year projected in the maintenance plan,
- The year during which the total emissions from the action are expected to be the greatest, and
- Any year for which the SIP specifies an emissions budget.

Completing analyses in these years may require emissions estimates for years not covered during the applicability analysis. For an action to conform, conformity must be demonstrated in all these years.

If the analysis results in a positive conformity determination in all required analysis years, a draft conformity determination can be prepared. If conformity cannot be demonstrated, mitigation measures should be considered.

Evaluate Mitigation Measures. Mitigation measures are any measures that would lower the total emissions sufficiently to achieve a positive conformity determination.⁸ Many methods are available to provide mitigation, including finding offsets, and each installation must choose or develop its own to meet its own specific situation. If offsets are used, the total direct and indirect emissions from the action must be fully offset within the area so that there is no net increase in emissions of the pollutants of interest, and the offsets must be state and federally enforceable. Some mitigation measures could involve non-USAF entities, and written commitments to implement the measures must be obtained from them prior to making a positive conformity determination [40 CFR 93.160(b)]. When circumstances change, mitigation measures can be modified as long as conformity is supported and the reporting and public participation requirements are satisfied [40 CFR 93.160(e)]. If application of the mitigation measures at the specified times does not lower emissions sufficiently to result in a positive conformity determination, the action cannot proceed.

It may be necessary to adjust the action if mitigation measures appear insufficient to demonstrate conformity. The USAF should be consulted to develop acceptable adjustments and/or additional mitigation measures if this situation arises. Adjustments may result in a modified action that will differ from and replace the original action.

If the USAF is permitting or approving the action of another entity, USAF approval must be conditioned on the other entity meeting the mitigation measures [40 CFR 93.160(d)].

A new determination may be required for an action even after a final determination has been made. Once made, a conformity determination lapses after five years unless the action has been completed or unless a continuous program has commenced [40 CFR 93.157(a)]. An

⁸ Emissions reductions made as adjustments to an action during the applicability analysis in order to avoid the need for a conformity determination are not mitigation measures in the context of general conformity. They become part of the action itself.

ongoing activity does not require redeterminations so long as there are no new actions and so long as the activities are within the scope of the final determination [40 CFR 93.157(b)]. If the action is changed so that there is an increase in the total emissions above the de minimis levels, a new conformity determination is required [40 CFR 93.157(c)].

Prepare Preliminary Draft Determination and Draft Conformity Determination.

The conformity determination formally documents the finding that the action would conform to the SIP. The regulations do not fully specify its contents. The USAF must determine for itself the appropriate level of documentation. Overall, the determination must meet the requirements specified in the federal regulations and any additional requirements specified by the regulatory agency and the USAF. The conformity determination must do the following:

- Identify any mitigation measures, and
- Describe the process for implementing and enforcing them [40 CFR 93.160(a)].

The description must include an implementation schedule for any mitigation measures. Section 3.1 discusses integration of the conformity determination with EIAP/NEPA documentation.

Prior to the preparation of the draft for external distribution, a preliminary draft should be prepared. As a standard procedure, the preliminary draft should be forwarded through the MAJCOM CEVs to Headquarters (HQ)USAF/ILEV for review and comment and processing with SAF/IEE. These comments can then be incorporated into the draft.

Distribute Draft and Provide for Notification and Comment. The regulations require that the USAF give a 30-day notice that describes the proposed action and the draft conformity determination to the EPA Regional Office(s), state and local air agencies, any affected federal land managers (see Chapter 7, Glossary), the agency designated under Section 174 of the CAA, and the MPO [40 CFR 93.155(a)]. Draft conformity determinations must be forwarded to HQUSAF/ILEV, SAF/IEE, and the MAJCOM.

The public must also be notified of the draft conformity determination by advertisement in a daily newspaper and by providing 30 days for written comment prior to taking formal action on the draft determination [40 CFR 93.156(b)]. Upon request, the draft determination, along with supporting materials, must be made available to any person. It is recommended, but not required, that draft documents also be provided to local and area libraries. These materials include descriptions of analysis methods and conclusions used in both the applicability analysis and the draft determination [40 CFR 93.156(a)].

Respond to Comments, Develop the Final Conformity Determination, and Submit to SAF/IEE. At the close of the comment period, the final conformity determination can be

prepared. All comments must be considered in making the final conformity determination (40 CFR 93.154), including those from the public and government agencies. The USAF is required to respond to all comments and make both the comments and the responses available when requested within 30 days of the final determination [40 CFR 93.156(c)]. The final conformity determination must be submitted through SAF/IEE, which has the final approval authority.

Provide for Final Public and Agency Notification. The USAF must notify the EPA Regional Office(s), state and local air agencies, any affected federal land managers, the agency designated under Section 174 of the CAA, and the MPO within 30 days of making a final conformity determination [40 CFR 93.155(b)]. In addition, the determination must be made public by advertisement in a daily newspaper within 30 days of the determination [40 CFR 93.156(d)]. It is recommended, but not required, that final documents also be provided to local and area libraries.

3 INTERACTIONS WITH OTHER REGULATORY REQUIREMENTS

3.1 NATIONAL ENVIRONMENTAL POLICY ACT

General conformity considers only air quality impacts. EIAP/NEPA consider additional environmental resources. Considering just air quality, the impact analysis requirements of EIAP/NEPA and those of general conformity under the CAA are independent. Satisfying one set does not necessarily satisfy the other. For example, both conformity and EIAP/NEPA must consider both direct and indirect emissions from stationary and mobile sources. However, conformity deals only with criteria pollutants and actions occurring in nonattainment and maintenance areas, while EIAP/NEPA consider all pollutants and all actions regardless of their locations. In addition, indirect emissions that the USAF cannot practicably control can be excluded from the conformity process but not from EIAP/NEPA. Finally, conformity criteria are quantitative as expressed in de minimis threshold values or the 10% criterion for regional significance. The EIAP/NEPA threshold is a more judgmental potential for significant environmental impact.

The following sections discuss the relationship between EIAP/NEPA and general conformity first, when the action falls under a CATEX under EIAP/NEPA (Section 3.1.1), and then when further EIAP/NEPA documentation (EA or EIS) must be prepared (Section 3.1.2). Section 3.1.3 describes documentation of conformity in final EIAP/NEPA documents. A discussion of opportunities for integrating the EIAP/NEPA and conformity reviews (Section 3.1.4) follows.

3.1.1 General Conformity and a CATEX

When a CATEX determination is made, the consideration of general conformity should be documented along with the documentation of the CATEX (on Air Force Form 813, Air Force Form 332, U.S. Department of Defense Form 1391, etc.). As noted previously, a finding of nonapplicability must be documented. The documentation should include the reason or reasons supporting this conclusion. A RONA (Section 2.2.3) should provide sufficient documentation of nonapplicability. If nonapplicability has been determined by showing that emissions are below de minimis and regional significance thresholds, separate documentation of the emissions calculations and regional emissions would be required. If ACAM (see text box in Section 2.2.2 and Conformity Analysis Tools in Chapter 6) has been used in the emissions analysis, the ACAM output report could be used for documentation. It is recommended, but not required, that this documentation be referenced or attached to the CATEX documentation.

In the unlikely event that a conformity determination is required for a CATEX action, the need, as described in the previous paragraph, should be documented. Again, it is recommended, but not required, that a copy of the formal determination and references to the determination analysis and all supporting documents and administrative records be kept with the CATEX documentation.

3.1.2 General Conformity and an EA or an EIS

To comply with EIAP/NEPA, an EA or an EIS must assess the air quality impacts associated with the proposed action and the alternatives. However, a conformity determination is not required for each alternative, only for the one that the USAF approves, permits, or funds (see Question 4, *Interface between Conformity Rule and NEPA* [EPA 1994]).

The following paragraphs discuss the relationship between general conformity and EIAP/NEPA for each of the areas generally covered in an EIAP/NEPA document.

Description of Affected Environment and Description of Alternatives. Only actions emitting criteria pollutants and their precursors in nonattainment and maintenance areas are potentially subject to conformity. The description of the affected environment should include the following:

- The attainment and maintenance status, including any severity designations;
- Any pollutants of concern, including precursors;
- Ambient monitoring data for pollutants of concern; and
- If regional significance was assessed while reviewing applicability, regional emissions should be included.

If threshold comparisons were made, the maximum annual emissions of pollutants of concern for each alternative should be provided.

In describing the alternatives, any adjustments made to reduce emissions below threshold levels should be included as part of the action; they do not, however, need to be identified as adjustments. (“Adjustments” is not an EIAP/NEPA term. See Step 9, Section 2.2.2 for a discussion of adjustments under conformity.)

Much of this information would normally be included in the EIAP/NEPA documentation even if conformity were not an issue. Additional information may be needed for EIAP/NEPA purposes. For example, emissions from portions of the action exempt from conformity, toxic emissions, and emissions of attainment criteria pollutants might be needed for a complete EIAP/NEPA analysis.

Environmental Consequences. As noted previously, it is necessary to document a finding that a conformity determination is not needed. An air analysis under EIAP/NEPA should address conformity for actions in nonattainment or maintenance areas. As a best management practice, it is recommended that the discussion of environmental consequences should present the results of the conformity applicability analysis for each alternative. The results of any of the conformity determinations also should be presented. And, as already noted, the conformity

analysis may be narrower in scope than the EIAP/NEPA analysis and thus, presentation of the results of the conformity analysis may be in addition to the presentation of the results of the EIAP/NEPA analysis.

Conformity Review Results. For each alternative, the results of the conformity review should be provided. If conformity does not apply, the reason for the exemption (Section 2.2) should be stated. If emissions threshold comparisons were made, the results should be presented. The reasons for any differences between the emissions analyzed for conformity and those analyzed for EIAP/NEPA should be explained.

Conformity Determination Results. For each alternative for which a conformity determination was conducted, the criteria used should be identified and the way in which they would be met should be briefly described. A brief summary of the determination analysis should be provided; details are probably best put in an appendix. Any mitigation measures, including offsets, should be described along with implementation and enforcement measures.

Applicable Laws and Regulations. Even if conformity would not apply, for example, if the action were located in an attainment area, the statutory requirements for conformity must still be addressed in the EIAP/NEPA document. The discussion should note the statutory requirements of Section 176(c)(1) of the CAA, the EPA regulatory requirements in 40 CFR 93, Subpart B, and the applicable state (or other) general conformity regulations.

Appendixes. The draft conformity determination should be included as an appendix to the draft EA or EIS. The final conformity determination should be provided as an appendix to the final EA or EIS. Public comments on the draft determination and the USAF responses should be provided.

3.1.3 Record of Decision or Finding of No Significant Impact

A Record of Decision (ROD) or a Finding of No Significant Impact (FONSI) should provide a brief description of any conformity determinations. Commitments to implement mitigation measures, including any SIP revisions or offsets required to achieve conformity, should be included.

3.1.4 Integrating the EIAP/NEPA and General Conformity Processes

The independence of the legal compliance requirements implies the need for separate administrative procedures and determinations. However, the regulations do permit the USAF to determine the best ways to integrate the conformity and EIAP/NEPA processes. EPA guidance indicates that, at a minimum, when the specific action is determined during the EIAP/NEPA

process, the air quality analyses for conformity should be performed (Question 3, *Interface between Conformity Rule and NEPA* [EPA 1994]). Some additional opportunities of integration include the following:

- Joint notification and public participation, and
- Development of emissions reduction and, if needed, emissions mitigation measures.

When implementing joint processes, care must be taken to maintain separate administrative records and documents reflecting the possibly different scopes of the EIAP/NEPA and general conformity reviews. For example, if a portion of a proposed action is subject to NSR, it would be exempt from general conformity but subject to analysis, public comment, and review under EIAP/NEPA. Again, if an action is adjusted to exempt it from a conformity determination, its air impacts might still need to be analyzed as part of the EIAP/NEPA review.

3.2 BASE REALIGNMENT AND CLOSURE

The BRAC process involves relocation, reduction, and elimination of mission; disposing of USAF property; and closure of installations. Congress exempted the nondiscretionary aspects of base closures and realignments from NEPA; however, the exemption does not extend to general conformity requirements or NEPA requirements for discretionary agency decisions under BRAC. If a BRAC action is also subject to EIAP/NEPA, both reviews may be conducted concurrently as noted in Section 3.1.4. Some portions of BRAC actions, particularly those involving transfers of real property, may be exempt from general conformity (see Section 2.2.2).

3.3 TITLE V OPERATING PERMIT

Title V of the CAA establishes an operating permit program for major stationary sources. General conformity is a review conducted prior to construction or implementation of an action and can include review of minor sources and sources such as worker vehicles not covered under Title V. There are no direct connections between general conformity and Title V under the federal regulations. However, it is recommended that the state or local regulator be consulted to determine their interpretations and requirements. Such consultation is particularly important in areas having consolidated construction and operating permits.

During a conformity determination, developing offsets or other mitigation measures may require modifications to the Title V permits of sources not included in the action.

3.4 EMISSIONS INVENTORIES

Facilities subject to conformity should develop and maintain a baseline air emissions inventory that includes both stationary and mobile sources in accordance with AFI 32-7040 *Air Quality Compliance*. The mobile source inventory should include emissions from aircraft operations, government-owned vehicles, and personally owned vehicles as noted in Step 6, Section 2.2.2. Although conformity provides no requirement to develop such a baseline, as a practical matter, having the baseline is critical if a conformity determination is required. Development of mitigation measures and finding offsets depend on having an accurate inventory of stationary and mobile sources.

4 SPECIAL ISSUES

This section covers planning for conformity, the role of the MPO, classified actions, making conformity determinations when multiple federal agencies are involved, and community relations.

4.1 PLANNING

4.1.1 General

In planning for an action or project, the time and resources for the conformity process and for coordination with regulators and other non-USAF agencies should be included. Not only can the failure to comply with conformity requirements preclude an action from proceeding, but the conformity process adds to the time needed to approve and initiate an action or project, particularly when a full conformity determination is required (Table 4.1). Even if a determination is not required, calculating emissions for a large action may require substantial time and a series of changes may be needed to adjust its emissions below conformity thresholds. Time and resources for these changes should be included in the original plan.

If a determination is required, time and resources will need to be allocated for discussions with regulators to identify appropriate conformity criteria and ensure that acceptable models and planning data are used. If modeling, mitigation, or offsets are needed, additional time-consuming negotiations and coordination with the state will be required.

4.1.2 New Particulate and Ozone Standards

Implementation of the PM_{2.5} and 8-hour ozone standards will result in new nonattainment areas. Installations should monitor the designation process to ascertain their likely nonattainment status. Some states and EPA Regions already have predicted nonattainment designations for the 8-hour ozone standard. The EPA will issue revisions to 40 CFR Part 51 on implementation plan requirements covering the new standards. These revisions will address conformity requirements; no specific timetable for meeting the new standards has been set. The EPA's Semiannual Regulatory Agenda can be consulted at <http://www.epa.gov/epahome/rules.html#proposed> to monitor the EPA's schedule.

During the implementation planning process, installations are encouraged to work with the states as emissions budgets are established. Having the emissions already accounted for in the SIP is the easiest criterion by which conformity can be established. Knowing where the installation's budget is in the SIP and how to identify it provides a basis for unambiguous

TABLE 4.1 Time Requirements for Major Tasks in Conformity Review

Action ^a	Approximate Time Range ^b
Applicability analysis, including emissions calculations	1 day – 1 month
If a conformity determination is required:	
Secure an EIAP/conformity contractor, if needed.	4 – 6 weeks
Prepare a protocol for analysis.	1 – 2 weeks
Coordinate protocol with MAJCOM, regulatory agencies, and MPO.	1 – 2 weeks
Prepare preliminary draft conformity document, develop mitigation measures, obtain needed commitments.	2 weeks – 6 months
Coordinate with MAJCOM, HQUSAF/ILEV, and SAF/GCN, if necessary.	1 – 2 weeks
Prepare draft conformity document based on HQUSAF recommendations and changes.	1 – 3 weeks
Prepare and coordinate public participation (newspaper notice); distribute draft document to local libraries, regulatory agencies, and interested parties; SAF/IEE review process.	5 – 10 days
Comment period.	30 days
Respond to comments, revise analysis or mitigation measures if needed, and prepare final positive conformity determination.	1 week – 3 months
Secure SAF/IEE approval and signature.	1 – 2 weeks
Prepare and publish newspaper notice and distribute final document to local libraries.	1 week

^a Every action needed is not listed, and some listed actions may not be required for particular actions.

^b Some of these tasks can be accomplished simultaneously.

identification when future actions require conformity determinations. Although the installation is responsible for developing reasonable estimates of future emissions for use in budgeting, given the shifting priorities and schedules involved in implementing actions, budgets should remain installation-specific but not be tied to specific actions.

4.2 METROPOLITAN PLANNING ORGANIZATIONS

MPOs are designated by governors to plan and program regional transportation system improvements for urbanized areas. MPOs are heavily involved in transportation conformity. All planning assumptions, including population and growth projections used in a conformity determination, must be derived from those most recently approved by the MPO or other authorized agency.

The regulation requires additional contacts with the MPO. The USAF must give a 30-day notice that describes the proposed action and the draft conformity determination to the MPO and provide them with the draft determination and supporting materials if requested. In addition, the USAF must notify the MPO within 30 days of making a final conformity determination.

Proactive involvement with the MPO is also recommended to build support for facility activities into local plans. The inclusion of anticipated actions in local plans, including the applicable SIP, can ease making a positive conformity demonstration. Involvement with the MPO also gives the facility the opportunity to ensure that facility concerns and plans are addressed in the planning assumptions that must be used in making conformity determinations.

4.3 CLASSIFIED ACTIONS

The USAF must comply with the general conformity requirements for classified actions. Any internal documentation for the applicability analysis and conformity determination and, if required, draft and final conformity determinations, must be prepared, safeguarded, and distributed according to established procedures for classified documents.

Classification of the conformity determination may be required for two situations:

- The proposed action is classified and a conformity action concerning the action is classified, or
- The proposed action is not itself classified but certain aspects of the documentation required for the determination are classified.

When the entire proposed action is classified, the entire conformity determination process may be kept classified and safeguarded according to USAF security classification procedures. The conformity process would still be completed, but only those persons at the state or the EPA with security clearance would be allowed to review the determination.

When only a portion of the conformity determination is classified, the documentation should be organized with the classified information in a separate classified attachment. The unclassified portions of the documentation can be released to the public.

HQUSAF/ILEV can provide assistance in identifying appropriate procedures for handling classified actions.

4.4 ACTIONS INVOLVING MULTIPLE FEDERAL AGENCIES

Other federal agencies may have jurisdiction over parts of USAF actions for which the agency is granting a permit, approval, or conducting a consultation. For example, the action may require Endangered Species Act consultations, Federal Aviation Administration (FAA) air space designations, or joint funding may be involved. When different federal agencies have jurisdiction over the same project, the USAF may choose to adopt the analysis of another agency or may choose to develop its own analysis (40 CFR 93.154). However, each agency must make its own determination based on the analysis. Several situations could arise:

- When only the USAF has jurisdiction (multiple agencies are not involved), it must perform the analysis.
- When more than one agency has jurisdiction over parts of the action, for example, when the USAF builds additional aircraft ramp space for the U.S. Coast Guard to locate an expanded mission, either agency can perform the analysis for the entire action and the other agency can adopt that analysis to make its own determination.
- When the action is jointly undertaken, for example, when the USAF and another agency jointly fund construction of a joint use facility, the general conformity rule does not explicitly address the situation. However, using the logic of the previous example, either agency can perform the analysis for the entire action and the other agency can adopt that analysis to make its own determination.

When the USAF adopts the analysis of another agency, the determination must state that the USAF is adopting the other agency's analysis. The other agency's determination should be included by reference with any necessary amplification. In addition, the USAF is still responsible for ensuring that the notification and reporting requirements and public participation requirements are satisfied for the adopted analysis. This may be performed either by participating in the procedures of the other agency or by conducting independent USAF procedures.

The conformity rule covers only interagency situations, not situations involving multiple branches of the military. Any questions involving such overlaps should be directed through HQUSAF/ILEV to SAF/IEE and SAF/GCN.

4.5 ROLE OF THE COMMUNITY

Public participation is not required during the conformity review. During the conformity determination process, USAF policy seeks to involve the public as a partner rather than as an adversary in addition to meeting the regulatory requirements discussed in Section 2.3. Thus, the Public Affairs Office and the Office of the Staff Judge Advocate should be brought into the conformity determination process as early as possible to ensure the partnering relationship.

Planning is crucial to the success of any community relations effort. Installations must keep complete and up-to-date administrative records of the determination process. All written and verbal comments from the public and official reviewers and the associated responses should be documented as required by the regulations. Failure to document comments and responses properly may result in an installation being unable to sustain a legal defense of its determination.

Planning should include scheduling of the required public participation and time for comment acceptance and comment response. Installation and contractor personnel involved in public meetings should be able to communicate effectively about technical and legal issues. If a contractor is required for community relations activities, its SOW needs to address these requirements.

Maintenance of open communications and good public relations cannot be overemphasized. It is important to establish an atmosphere of partnership that enables installation personnel to discover and remedy public misconceptions that might lead to citizen suits.

5 REFERENCES

U.S. Environmental Protection Agency, 1993, “Determining Conformity of General Federal Actions to State or Federal Implementation Plans,” *Code of Federal Regulations*, Title 40, Part 93, Subpart B, 581–582.

U.S. Environmental Protection Agency, 1994, *General Conformity Guidance Questions and Answers*, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. July 13. Available at http://www.epa.gov/ttn/oarpg/conform/gcgqa_71394.pdf.

U.S. Environmental Protection Agency, 2002, *Compilation of Air Pollutant Emission Factors AP-42, Vol. 1: Stationary Point and Area Sources, Supplements A–F, Updates 2001–2002*, 5th ed., Office of Air Quality Planning and Standards, Research Triangle Park, N.C. Sept. Available at <http://www.epa.gov/ttn/chief/ap42/index.html>.

U.S. President, 1978, “Federal Compliance with Pollution Control Standards,” Executive Order 12088, *Federal Register*, 43:47707, Oct. 13.

6 RESOURCES

Uniform resource locators (URLs) often change as Web sites are revised. The URLs referenced here were checked on August 28 or 29, 2002. If these reference links are broken, search for the new link by starting at the lowest level of the URL, usually a filename or a directory name. Work toward progressively higher levels of the URL by deleting the filename or subdirectory. After each deletion, attempt to connect to the Web site by using the truncated URL. Once contact is established, use the title and subject of the document being sought as guides to locating the document.

All titles in the CFR are available at <http://www.access.gpo.gov/nara/cfr>. If the Title, Part, and Section or Subpart are known (for example, [Title] 40 CFR [Part] 93 Subpart B), use the link *Retrieve CFR section by citation*. Otherwise, try *Search or browse your choice of CFR titles and/or volumes*.

The Defense Environmental Network Information eXchange (DENIX) is the referenced link for some resources. A User ID and password are needed to access the DENIX Web site. These may be obtained by registering with DENIX at <http://www.denix.osd.mil/denix/register.html>.

Federal Legislation

Clean Air Act (42 USC 7401 – 7671q). Available at <http://www4.law.cornell.edu/uscode/42/ch85.html>.

National Environmental Policy Act (NEPA) (42 USC 4321 – 4370e). Available at <http://www4.law.cornell.edu/uscode/42/ch55.html>.

Federal Regulations

Air Quality Control Regions. EPA, *Designation of Areas for Air Quality Planning* (40 CFR 91).

Air Quality Models. EPA, *Guideline on Air Quality Models* (40 CFR 51, Appendix W).

Ambient Standards. EPA, *National Primary and Secondary Ambient Air Quality Standards* (40 CFR 50).

EPA Semiannual Regulatory Agenda. Available at <http://www.epa.gov/epahome/rules.html#proposed>.

General Conformity. EPA, *Determining Conformity of Federal Actions to State or Federal Implementation Plans* (40 CFR 93, Subpart B).

NEPA. Council on Environmental Quality, *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 CFR 1500–1508).

SIPs. EPA, *Requirements for Preparation, Adoption, and Submittal of Implementation Plans* (40 CFR 51).

Title V Operating Permits. EPA, *State Operating Permit Program* (40 CFR 70).

Nonattainment and Maintenance Areas

EPA, *Designation of Areas for Air Quality Planning Purposes* (40 CFR 81, Subpart C).

EPA Greenbook. Available at <http://www.epa.gov/oar/oaqps/greenbk/index.html>.

The Greenbook is usually more current. The CFR is updated annually. Always check with the local regulator and the EPA Regional Office.

States with Approved Conformity SIPs

A listing of states with approved conformity SIPs is available at <http://www.denix.osd.mil/denix/DOD/Working/CAASSC/Conform/confstat.html>.

A DENIX User ID and password are needed to access this site.

EPA Guidance

General Conformity Guidance: Questions and Answers, Office of Air Quality Planning and Standards, Research Triangle Park, N.C., July 13, 1994. Available at <http://www.epa.gov/ttn/oarpg/conform/>.

General Conformity Guidance: Questions and Answers, Office of Air Quality Planning and Standards, Research Triangle Park, N.C., Oct. 19, 1994. Available at <http://www.epa.gov/ttn/oarpg/conform/>.

Interim Policy on Wildland and Prescribed Fires, June 3, 1998. Available at <http://tis.eh.doe.gov/oepa/guidance/caa/fires.pdf>.

USAF Guidance and Tools

AFI 32-7040 *Air Quality Compliance*. May 9, 1994. Available at <https://www.denix.osd.mil/denix/Public/Policy/AF/Instructions/toc.html>.

A DENIX User ID and password are needed to access this site.

AFI 32-7061 *Environmental Impact Analysis*. Jan. 24, 1995. Available at <https://www.denix.osd.mil/denix/Public/Policy/AF/Instructions/toc.html>.

A DENIX User ID and password are needed to access this site.

Federal Aviation Administration and USAF, *Air Quality Procedures for Civilian Airports and Air Force Bases*. Available at <http://www.aee.faa.gov/AEE-100/AEE-120/AQP/Handbook/Main.pdf>.

General Conformity Rule, AFCEE Pro-Act Fact Sheet, July 2000. Available at <http://www.afcee.brooks.af.mil/pro-act/fact/july00.asp>.

AFCEE Federal CAA Toolbox Compliance Guidance Tools for General Conformity. Available at <http://www.afcee.brooks.af.mil/eq/air/caatoolbox/html/federal/compdet/genconform.html>.

Army and Navy Guidance

Ling, A.D., R.E. Tickle, and A.C. Raridon, 2000, *Navy Revised Clean Air Act General Conformity Guidance*, presented at the Air and Waste Management Association's (AWMA) 93rd Annual Conference and Exhibition, Salt Lake City, Utah, June 18–22, 2000. Available at <https://www.denix.osd.mil/denix/DOD/Working/CAASSC/Conform/confguid.pdf>.

A DENIX User ID and password are needed to access this site.

U.S. Army Center for Health Promotion and Preventive Medicine, 1995, *Department of the Army Guide for Compliance with the General Conformity Rule under the Clean Air Act*, June 15. Available at <https://www.denix.osd.mil/denix/DOD/Working/CAASSC/Conform/doa1.html>.

A DENIX User ID and password are needed to access this site.

Polak, L.M., and L.L. Weber, 2002, *Technical Guide for Compliance with the General Conformity Rule*, Aug. Available at <https://www.denix.osd.mil/denix/DOD/Library/AEC/techguidcomp.doc>.

A DENIX User ID and password are needed to access this site.

General Conformity and EIAP/NEPA

U.S. Department of Energy, 2000, *Clean Air Act General Conformity Requirements and the National Environmental Policy Act (NEPA) Process*, April. Available at <http://tis.eh.doe.gov/nepa/tools/guidance/caaguidance.pdf>.

Emission Calculation Tools

Documents

EPA, 2002, *Compilation of Air Pollutant Emission Factors AP-42, Vol. 1: Stationary Point and Area Sources, Supplements A–F, Updates 2001–2002*, 5th ed. EPA Office of Air Quality Planning and Standards, Research Triangle Park, N.C., Sept. Available at <http://www.epa.gov/ttn/chief/ap42/index.html>.

AP-42 is the EPA's standard reference for stationary source emission factors. It is not the only or necessarily the best reference for all sources. The literature, local regulators, and vendors may have alternative factors.

O'Brien, R.J., K.W. Blasch, and G.T. Johnson, 1999, *Air Emissions Inventory Guidance for Stationary Sources at Air Force Installations*. U.S. Air Force Institute for Environment, Safety and Health Risk Analysis, Report No. IERA-RS-BR-SR-1999-0001, Brooks Air Force Base, Tex., May. Available at <https://www.afms.mil/afiera/rse/airtool.htm>.

This reference recommends methodologies for calculating emissions for the most common types of stationary sources found at USAF installations. For source types available in AP-42, AP-42 factors (current as of January 1995) are used. This reference is particularly useful in providing methods for calculating emissions for common USAF source types not found in AP-42, such as fire fighter training, nondestructive testing, and aircraft engine testing. Emissions of criteria pollutants, hazardous air pollutants, and ozone-depleting substances are covered.

O'Brien, R.J., and M.D. Wade, 2002, *Air Emissions Inventory Guidance for Mobile Sources at Air Force Installations*. U.S. Air Force Institute for Environment, Safety and Health Risk Analysis, Report No. IERA-RS-BR-SR-2001-0010, Brooks Air Force Base, Tex., Jan. Available at <https://www.afms.mil/afiera/rse/airtool.htm>.

This reference provides a tool for estimating emissions from aerospace ground equipment (AGE), aircraft engines, on-road and off-road vehicles, and nonroad vehicles. The aircraft engine factors include factors for engines burning JP-8.

Vehicle emission factors are consistent with AP-42 mobile source factors. However, since publication of the reference, the EPA has released MOBILE6, which is now (August 2002) the most current version of the EPA's motor vehicle emissions model, and thus the model normally expected to be used for conformity. In addition, the reference recommends methods for

calculating vehicle emissions that differ from those used in the MOBILE models. Consultation with local regulators on the acceptability of this reference's methods for estimating vehicular emissions is thus recommended.

Nonroad emission factors are consistent with current EPA information.

Computer Programs

MOBILE6. The EPA currently (August 2002) specifies MOBILE6 for estimating emission factors for highway vehicles. The model predicts grams per mile emissions for hydrocarbons, CO, NO_x, and particulate matter from cars, trucks, and motorcycles under various conditions. Available at <http://www.epa.gov/otaq/m6.htm>.

The EPA has also released extensions MOBILE6.1 and 6.2 to estimate emission factors for particulate matter and air toxics from highway vehicles. The extensions are available for a limited time from the same Web site.

URBEMIS. The Urban Emissions Model (URBEMIS 2001) is a Windows program that estimates air emissions from land use development projects such as shopping centers, office buildings, and construction sites. The model requires only minimal user input but most defaults can be modified. The Institute of Transportation Engineer's *Trip Generation Manual, Version 6.0* and the California Air Resources Board's *EMFAC 2001, Version 2.08* can be used to calculate motor vehicle emissions. Other components can be used to estimate:

- Construction emissions;
- Emissions from area sources such as gas appliances, wood stoves, and landscape maintenance; and
- Effects of mitigation measures for construction and area sources.

URBEMIS motor vehicle emissions reflect California emissions factors, which tend to be lower than those in other states. Thus, URBEMIS motor vehicle results may not be acceptable in other jurisdictions unless adjusted to reflect their vehicle fleets.

URBEMIS provides some on-screen help, including limited information on emissions calculations. Although the user's guide has not been updated beyond Version 7G, it is still largely applicable to URBEMIS 2001. A revised user's guide is forthcoming. Both the model and the user's guide are available at <http://www.arb.ca.gov/planning/urbemis/urbemis.htm>.

APIMS. The Air Program Information Management System (APIMS) Version 4.3 provides a range of air program management capabilities, including the capability to calculate emissions from many USAF sources and to handle what-if scenarios. It does not estimate construction or highway vehicle emissions. However, the user can add categories and emission algorithms to the system. APIMS is being used by many USAF installations to manage their

emissions inventories. APIMS is currently being integrated into the emerging USAF system called ACES-EM (Air Force Civil Engineering System Environmental Management Module). For information on availability, contact

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Conformity Analysis Tools

The USAF commonly uses two computerized tools to aid in emission analysis: the Air Conformity Applicability Model (ACAM) and the Emission Dispersion Modeling System (EDMS).

ACAM. ACAM is a screening tool used by USAF planners and EIAP/NEPA personnel to perform conformity applicability analyses. The model outputs a rough estimate of conformity-related emissions and provides sufficient detail for a conformity applicability analysis and is a good start for a conformity determination. ACAM can be used for a single project or for comparing alternatives as part of EIAP/NEPA. ACAM incorporates the EPA's MOBILE5b for highway vehicle emissions and the USAF's Aircraft Generation Equipment Emissions Estimator (AGEEE) for AGE emissions. Construction emissions are based on algorithms developed by the South Coast and Santa Barbara Air Quality Management Districts. EPA Tanks, Version 4.0, and emergency generator algorithms have also been included. Many USAF aircraft/engine combinations as well as those used in other services are available in ACAM.

The model runs with Windows 95 and Windows NT compatible operating systems and provides a training package and manuals.

A limited set of data inputs is generally required to run ACAM for a particular action. The model provides default settings for most of the input parameters but allows the user to enter more specific input values to refine the model results. Emissions are calculated for each calendar year and compared with conformity de minimis thresholds and regional emissions. If appropriate, the de minimis comparison accounts for the severity of the area's nonattainment problem. A color code rating is assigned to each year for each pollutant of interest:

- Red – Emissions from the action are greater than or equal to the de minimis threshold or are regionally significant.
- Yellow – Emissions from the action are greater than or equal to 80% of the de minimis threshold.
- Green – Emissions from the action are less than 80% of the de minimis threshold.

ACAM Version 3.0 is available through the PRO-ACT Web page (<http://www.afcee.brooks.af.mil/pro-act/pro-acthome.asp>) or may be obtained by contacting

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EDMS. EDMS is a tool that helps assess the air quality impacts of airbase and airport operation. The focus is on mobile sources, such as aircraft engines, auxiliary power units, and AGE; ground vehicles, such as trucks and automobiles; and limited inclusion of fixed sources, such as power plants and fuel storage tanks. The system produces estimates of criteria pollutant emissions and includes dispersion algorithms that will estimate downwind concentrations.

EDMS can be useful in addressing requirements for environmental impact assessments and analyses associated with proposed airbase additions, modifications, mission changes and aircraft beddowns, and in addressing general conformity requirements. EDMS is an EPA preferred guideline model for use in airbase and airport analyses.

Output includes a variety of report formats listing emissions rates by source category and by pollutant for selected periods. It also generates reports detailing estimated pollutant concentrations at individually placed or gridded receptor locations for averaging times appropriate for comparison with NAAQS. Reports are available in both stand-alone format and in formats for importing into spreadsheets and graphics programs.

EDMS is a Windows-based system that combines a database of aircraft, support equipment, vehicle, and selected fixed source emission rates with a user interface that allows for

specification of airbase layout and operational information for each source type. Users can also enter weather information that allows the system to utilize EPA-validated dispersion algorithms such as AERMOD (AERMIC Model, American Meteorological Society EPA Regulatory Model Improvement Committee) to estimate pollutant concentrations at multiple receptors. The software operates in a screening mode and in a refined mode that requires importing of detailed weather records available from the National Climatic Data Center and other sources as listed at the FAA EDMS Web site (<http://www.aee.faa.gov/aee-100/aee-120/edms/banner.htm>).

Most aircraft and engine combinations in the current USAF inventory are included. Because the system is also applied at civilian airports, it includes many general aviation and commercial aircraft types as well, in addition to Navy, Army, and Marine Corps types. Emissions factors are taken from the latest International Civil Aviation Organization (ICAO) Engine Exhaust Emissions Data Bank, supplemented by additional data sources.

The EDMS software package is available on CD-ROM through the FAA, at a cost of \$45 to U.S. users. An order form can be obtained at the FAA Web site. For technical inquiries, please contact the FAA Office of Environment and Energy or Air Force Research Laboratory/Airbase Technologies Division (AFRL/MLQ).

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7 GLOSSARY

Action: See *federal action*.

Affected federal land manager: The federal agency or official charged with direct responsibility for management of a Class I area located within 100 km of the proposed federal action.

Area: Nonattainment or maintenance area.

Areawide air quality modeling: An assessment that includes the entire nonattainment or maintenance area and that uses an air quality dispersion model to determine the effects of emissions on air quality.

Caused by: As used in the terms “direct emissions” and “indirect emissions,” means emissions that would not otherwise occur in the absence of the federal action.

Conformity: In this document, conformity means General Conformity.

Conformity determination criteria: The criteria used to determine whether the total direct and indirect emissions of pollutants of concern conform with the State Implementation Plan (SIP).

Conformity analysis: The process of demonstrating conformity with the SIP, including air quality modeling.

Conformity applicability analysis: The analysis that documents all the direct and indirect emissions, both construction and operational, for the entire action that are practicably controllable by the United States Air Force (USAF). The applicability analysis must affirmatively establish whether emissions are below de minimis levels.

Conformity determination: The formal written finding that the action would conform with the SIP.

Criteria pollutant: Any pollutant for which there is a National Ambient Air Quality Standard (NAAQS), including carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), particulate matter (PM₁₀ and PM_{2.5}), sulfur dioxide (SO₂), and ozone (O₃).

Direct emissions: Those emissions of a criteria pollutant or its precursors that are caused by or initiated by the federal action and occur at the same time and place as the action.

Emissions budgets: Those portions of the SIP’s projected emissions inventories that describe the level of emissions that provide for meeting reasonable further progress milestones or attainment or maintenance for any criteria pollutant or its precursors.

Emissions offsets: In conformity determination criteria, emissions offsets are emissions reductions that are quantifiable, consistent with the SIP attainment and reasonable further progress demonstrations, surplus to reductions required by and credited to other SIP provisions, enforceable, and permanent within the timeframe of the action.

Federal action: Any activity engaged in by a federal entity or any action a federal entity supports, finances, licenses, permits, or approves.

General conformity: The requirement of Section 176(c)(1) of the Clean Air Act (CAA) for federal agencies to demonstrate that their actions conform to plans for attaining and maintaining the NAAQS. The action must not contribute to new violations of the standards, increase the frequency or severity of existing violations, or delay timely attainment of the standards. General conformity covers actions not undertaken under the Federal Transit Act.

Indirect emissions: Those emissions of a criteria pollutant or its precursors that (1) are caused by the federal action but may occur later in time or may be further removed in distance from the action itself but are still reasonably foreseeable, and (2) the federal agency can practicably control and will maintain control over because of continuing program responsibility.

Local air quality modeling: An assessment of impacts on a scale smaller than the entire nonattainment or maintenance area that uses an air quality dispersion model to determine the effects of emissions on air quality.

Maintenance area: An area previously in nonattainment that has since come into attainment and that has an approved plan for maintaining the NAAQS.

Metropolitan Planning Organization: The organization responsible, together with the state, for conducting comprehensive metropolitan and transportation planning under Title 23, Part 134, and Title 49, Part 1607, of the *United States Code* (23 USC 134 and 49 USC 1607).

MPO: see *Metropolitan Planning Organization*.

NAAQS: see *National Ambient Air Quality Standards*.

National Ambient Air Quality Standards (NAAQS): Those standards established under Section 109 of the CAA, including standards for CO, Pb, NO₂, O₃, PM₁₀ and PM_{2.5}, and SO₂.

Nonattainment area: An area designated as not attaining one or more NAAQS.

Precursors: (1) For ozone, nitrogen dioxides, and volatile organic compounds, and (2) for particulate matter with an aerodynamic diameter of 10 μm or less (PM₁₀); those pollutants described in the SIP as significant contributors to PM₁₀ levels.

Pollutants of concern: Those criteria pollutants or their precursors emitted in a designated nonattainment or maintenance area.

Reasonably foreseeable emissions: Projected future indirect emissions that are identified at the time the conformity determination is made, the location of which is known, and that are quantifiable.

Reasonably significant action: A federal action for which the total of direct and indirect emissions represents 10% or more of the nonattainment or maintenance area's inventory for that pollutant.

State Implementation Plan (SIP): The plan submitted by each state and approved by the U.S. Environmental Protection Agency for implementing, maintaining, and enforcing NAAQS within the state.

Total of direct and indirect emissions: The sum of direct and indirect emissions increases and decreases caused by the federal action, that is, the "net" emissions considering all direct and indirect emissions. Emissions that are exempt or presumed to conform are not included in the total. The total includes emissions of criteria pollutants and their precursors.

**APPENDIX A:
EXAMPLES OF ACTIONS EXEMPT FROM
GENERAL CONFORMITY**

APPENDIX A:**EXAMPLES OF ACTIONS EXEMPT FROM
GENERAL CONFORMITY**

This list is not complete, and some of the listings have been paraphrased. Consult the *Federal Register* citations for the complete text.

1. Actions or portions related to transportation plans, programs, and projects developed, funded, or approved under Title 23 of the *United States Code* (USC) or the Federal Transit Act (Title 40, Part 903.153, Subpart A, of the *Code of Federal Regulations* [40 CFR 93.153(a)])
2. Actions with no or clearly de minimis emissions [40 CFR 93.153(c) (2)]
 - Judicial proceedings
 - Court-martials
 - Continuing and recurring activities such as permit renewals where activities will be similar in scope and operation to activities currently being conducted
 - Title V permit renewals
 - Rulemaking and policy development and issuance
 - United States Air Force (USAF) instructions and guidance letters
 - Routine maintenance and repair activities
 - Routine maintenance of administrative facilities, supporting structures, and grounds
 - Civil and criminal enforcement activities
 - Training of military police and
 - Environmental audits of base installations
 - Administrative actions such as personnel actions, organizational changes, and internal agency audits
 - Assessing costs for Program Objective Memorandum submittals and payroll operations

- Routine, recurring transportation of materiel and personnel
 - Aircraft and vehicle transport operations routinely occurring in a similar scope and duration to those currently occurring,
 - Return of squadron deployed for a training exercise or deployment,
 - Utilization of aircraft in operations that are similar in scope and duration to those currently occurring, or
 - Air shows or flyovers
- Routine movement of mobile assets, such as aircraft, when no new facilities are required to perform as operational groups and/or for repair or overhaul
 - Routine aircraft maintenance operations in which no new facilities or personnel are required
- Maintenance dredging and debris disposal where no new depths are required, permits are secured, and disposal will be at an approved disposal site
- Relocation of personnel and disposition of federally owned existing structures, properties, facilities, and lands provided that future activities will be similar in scope and operation to current activities
- Granting of leases, licenses, permits, and easements where activities will be similar in scope and operation to current activities
 - USAF leases a building on a base it does not presently need to a private company that uses it for similar purposes
- Planning, studies, and provision of technical assistance
- Routine operation of facilities, mobile assets, and equipment
 - Operations of vehicles, aircraft, facility heating equipment, etc., that are similar in scope and duration to operations currently occurring
- Transfers of ownership, interests, and titles in land, facilities, and real and personal properties
 - USAF quitclaims land it no longer requires to a private party
- Transfers of land, facilities, title, and real properties through an enforceable contract or lease where the federal agency does not retain continuing authority to control emissions, or

- Transfers and assignments of real property and related personal property from one federal entity to another for deeding to eligible applicants
 - USAF transfers excess housing and real property to the Navy
- 3. Actions for which emissions are not reasonably foreseeable [40 CFR 93.153(c) (3)]
 - Certain electric power marketing activities
- 4. Actions that carry out a conforming program [40 CFR 93.153(c) (4)]
 - Prescribed burning consistent with a conforming land management plan
- 5. Actions that are excluded, notwithstanding other requirements [40 CFR 93.153(d)]
 - The portion of an action that includes a major new or modified stationary source subject to New Source Review (NSR) or Prevention of Significant Deterioration (PSD)
 - Actions in response to emergencies or natural disasters such as hurricanes and earthquakes
 - Research, investigations, studies, demonstrations, or training in which no environmental detriment is incurred and/or the action furthers air quality research as determined by the agency responsible for the State Implementation Plan (SIP)
 - Alteration and additions of existing structures required by environmental legislation or regulations, and
 - Direct emissions from remedial and removal actions carried out under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and associated regulations to the extent such emissions comply with PSD and NSR programs or are exempted from other environmental regulations under CERCLA and applicable regulations under CERCLA.

APPENDIX B:
SUGGESTED RECORD OF NONAPPLICABILITY (RONA)

APPENDIX B:

SUGGESTED RECORD OF NONAPPLICABILITY (RONA)⁹

GENERAL CONFORMITY RECORD OF NONAPPLICABILITY

Action Name:

Action Identification Number:

Action Point of Contact Name and Phone:

Action Start Date:

Action End Date:

Nonattainment or Maintenance Area:

Nonattainment/Maintenance Pollutants and Precursors:

Applicable Regulation:

This action has been reviewed for General Conformity under *[Insert Applicable Regulatory Citation]*. This review concluded that the requirements of General Conformity do not apply to this action because:

___ The action is not located in a nonattainment/ maintenance area,

OR

___ The action is exempt under *[Insert Citation to Applicable Section of Regulation]* as *[Identify the Applicable Exemption Category]*,

OR

___ The action is presumed to conform as specified in *[Insert Reference to Air Force List of Actions Presumed to Conform]* as *[Identify the Applicable Category of Actions Presumed to Conform]*,

OR

___ The maximum annual total direct and indirect emissions of this action have been estimated to be *[List the Annual Emission Rate for Each Pollutant of Concern (tons/yr)]* and are below the de minimis levels of *[List Corresponding De Minimis Levels]* specified in *[Insert Regulatory Citation]*.

AND

The action is not regionally significant based on annual regional emissions of *[List Regional Emissions (tons/yr) of Pollutants of Concern]* (Reference: *[Reference Source of Regional Emissions]*).

⁹ The RONA shall be retained at the installation for a period of five years from the time of signature.

Emission estimates and supporting documentation are

- Attached
- Included in the EIAP/NEPA documentation [*Reference to EIAP/NEPA Documentation*]
- Other:

SIGNED
[INSTALLATION ENVIRONMENTAL COORDINATOR]

APPENDIX C:
SAMPLE PROTOCOL FOR CONFORMITY CONTRACTOR

APPENDIX C:
SAMPLE PROTOCOL FOR CONFORMITY CONTRACTOR

PROTOCOL
PREPARE GENERAL CONFORMITY DETERMINATION
AT **[Installation Name]**

1.0 OBJECTIVE

The objective of this task order is to obtain technical support for determining general conformity at **[Installation Name]**. The Air Force is required to comply with all applicable federal, state, and local environmental regulations. Included in these regulations is the general conformity rule. The intent of conformity is to ensure that federal actions do not adversely affect the timely attainment and maintenance of air quality standards. The Air Force is required to analyze the proposed **[Description of Action]** to ensure that pollutant emissions from this action conform with the State Implementation Plan for **[Name of State]**.

2.0 TASKS

The scope of this task order includes the professional labor and materials needed to accomplish the following:

- 2.1 Kickoff Meeting. Contractor shall attend a kickoff meeting to discuss the proposed methods for accomplishing tasks specified in this protocol.
- 2.2 Work Plan. Contractor shall develop draft and final work plans describing the proposed methods for accomplishing tasks in this protocol.
- 2.3 Preliminary Draft Conformity Determination. Contractor shall prepare a preliminary draft conformity determination according to either 40 CFR 93 or applicable state regulations. The preliminary draft conformity determination shall be composed of one document containing the background, analysis, and conclusions; and a second document containing the emissions calculations. The preliminary draft conformity determination shall include the following information:
 - 2.3.1 Background on the Clean Air Act General Conformity
 - 2.3.1.1 Introduction
 - 2.3.1.2 Background
 - 2.3.1.3 Conformity Determination Process

2.3.2 Description of the Air Force Action

2.3.2.1 Location of the Action

2.3.2.2 Purpose of the Action

2.3.2.3 Elements of the Action

2.3.3 Existing Air Quality at **[Name of Installation]**

2.3.3.1 Meteorological Conditions

2.3.3.2 Description of Criteria Pollutants and Standards

2.3.4 Current Air Quality Control Region Attainment Status

2.3.4.1 Ozone

2.3.4.2 Carbon Monoxide

2.3.4.3 Nitrogen Dioxide

2.3.4.4 Sulfur Dioxide

2.3.4.5 Particulate Matter

2.3.4.6 Lead

2.3.5 Historic Baseline Emissions

2.3.6 Analysis and Results

2.3.6.1 Methodology

2.3.6.2 Emissions

2.3.6.3 Results

2.3.6.4 Conclusions

2.3.7 References

2.4 Deliverables and Delivery Schedule. Deliverables are **[As Many Copies as Needed for Air Force Review]** copies of the preliminary draft conformity determination, **[As Many Copies as Needed to Satisfy the Public Participation and Reporting Requirements for the Draft]** copies of the draft conformity determination, and **[As Many Copies as Needed to Satisfy the Public Participation and Reporting Requirements for the Final]** copies of the final conformity determination. In addition, supporting materials that describe the analytical methods and conclusions relied upon in making the applicability determination and the draft conformity determination shall be delivered to the Air Force. All deliverables and requested backup materials shall be delivered to the person specified by the Air Force project officer.

Note: The schedule will depend upon the specific action. The typical time ranges in Table 4.1 may provide assistance in determining a schedule. The ranges in the schedule below reflect the ranges in the table. They should be modified and presented as single values for the action of interest.

The schedule shall be as shown below. Times are given as weeks from date of award of contract.

Task/Action	Due Date (Weeks after Contract Award)
Kickoff meeting	1
Work plan	2
Preliminary draft	3 – 6
Draft	4 – 9
Public comment period	8 – 13
Comment response and final conformity determination	9 – 25

- 2.5 Government Furnished Items and Property.
- 2.6 Draft Conformity Determination. Following Air Force review and comment on the preliminary draft, the contractor shall incorporate Air Force comments and prepare a draft conformity determination.
- 2.7 Public Participation. Contractor will provide the Air Force with **[As Many Copies as Needed to Satisfy the Public Participation and Reporting Requirements]** copies of this draft conformity determination. The contractor shall also provide a technical point of contact to answer any questions from the public or state agencies.
- 2.8 Final Conformity Determination. Contractor shall address comments received during the reporting requirement phase. The contractor shall incorporate the changes required by these comments into the final conformity determination. The comments received shall be put into an appendix of the final conformity determination. The contractor will provide the Air Force with **[As Many Copies as Needed to Satisfy Public Participation and Reporting Requirements]** copies of this final conformity determination.

APPENDIX D:

SAMPLE GENERAL CONFORMITY DETERMINATION ANALYSIS PROTOCOL

APPENDIX D

SAMPLE GENERAL CONFORMITY DETERMINATION ANALYSIS PROTOCOL

The following conformity determination analysis protocol was prepared for joint military-civilian use of March Air Reserve Base (ARB). Portions of the protocol relate to this specific project and installation. It does, however, contain the elements of a useful protocol by identifying:

- Sources to be included in the analysis;
- Analysis years;
- Emissions factors, their sources, and emissions models;
- Pollutants for which analysis is required and corresponding applicability thresholds;
- The specific conformity determination criteria, along with regulatory citations and the approach to be used in demonstrating that the criteria have been met;
- A discussion of the general State Implementation Plan (SIP) consistency requirement; and
- A specification of the emissions budgets, if available.

**March Air Reserve Base Joint Use Airport
Clean Air Act General Conformity Determination**

Analysis Protocol

The purpose of this general conformity determination is to document compliance with Clean Air Act (CAA) requirements in accordance with Part 93, Subpart B, of Title 40 of the *Code of Federal Regulations* (40 CFR 93, Subpart B) and the South Coast Air Quality Management District's Rule (SCAQMD) 1901. The conformity determination will analyze the air quality impact of nonattainment pollutants resulting from the proposed federal actions for allowing joint use of March Air Reserve Base (ARB) airfield, and determine whether they conform to the State Implementation Plan (SIP). This protocol establishes the proposed technical approach to be used to determine conformity for the proposed joint use of March ARB airfield, in compliance with 40 CFR 93, Subpart B.

Direct and Indirect Emissions

Total direct and indirect emissions from the proposed joint use airport will be estimated using similar sources and methods presented in the March Final Environmental Impact Statement (FEIS). The following conformity-related sources will be considered in the emissions estimate: aircraft flying and ground operations, unpermitted ground support equipment, unpermitted miscellaneous area sources associated with airport employees, construction activities (fugitive dust, construction activities, and motor vehicles), and motor vehicle emissions associated with on-and off-site work trips and employee commute trips. The direct and indirect emissions from these sources will be calculated for the peak emission year and SIP target years, including 1997, 1999, 2002, 2005, 2007, 2008, and 2010.

For conformity applicability, the emissions from the proposed civilian use will be included with the March ARB existing and future emissions to estimate the total net direct and indirect emissions associated with the proposed joint use airport. The conformity-related emissions for March ARB include similar source types, as described under the civilian emission sources.

Methods and assumptions used to calculate the total direct and indirect emissions will be based on accepted U.S. Environmental Protection Agency (EPA) methods and California Environmental Quality Act of 1970 (CEQA) guidelines, where feasible. Emissions from aircraft operations and ground support equipment will be estimated by using the Emission Dispersion Modeling System (EDMS). Construction emissions will be estimated based on CEQA Handbook methods and guidelines for emission factors. Miscellaneous area sources for civilian activities will be based on per-employee emission factors, as described in the March FEIS. Motor vehicle emissions will be based on CEQA handbook guidelines for estimated vehicle miles traveled (VMT) and vehicle mix, and the latest approved version of the Bay Area's emissions factor model.

Conformity Applicability

Conformity applicability will be performed for nitrogen oxides (NO_x), volatile organic compounds (VOCs), nitrogen dioxides (NO₂ as NO_x), carbon monoxide (CO), and particulate matter with a diameter less than or equal to 10 micrometers (PM₁₀). The applicability analysis will calculate the total direct and indirect emissions to determine whether the emissions meet the applicable de minimis emission thresholds, as follows:

NO _x	10 tons/yr
VOC	10 tons/yr
NO ₂	100 tons/yr
PM ₁₀	70 tons/yr
CO	100 tons/yr.

The total direct and indirect emissions will reflect the total net increases and decreases in emissions associated with March ARB with the proposed joint use. The difference from the peak annual emissions from the 1996 March ARB conformity-related emissions will be calculated and compared with the de minimis levels.

If the net increase exceeds the thresholds, a conformity determination for that pollutant will be conducted to demonstrate conformity.

Conformity Determination

The conformity determination will be conducted in accordance with 40 CFR 93, Subpart B, as amended. The criteria used to demonstrate conformity will be dependant on the type of pollutant and the status of the applicable SIP. The following highlights the criterion and approach to be used for each pollutant, if required, to demonstrate conformity.

Carbon Monoxide. Conformity will be demonstrated for CO based on EPA Criterion 93.18(4)(ii), in which the SCAQMD determines that areawide modeling is appropriate and that local scale modeling analysis is not needed, and that the direct and indirect emissions from the action do not cause or contribute to any new violations or increase the frequency or severity of existing violations of the CO standard based on areawide modeling.

The areawide modeling for CO has been conducted by SCAQMD and published in its 1997 Air Quality Management Plan (AQMP). The areawide model accounts for the latest Metropolitan Planning Organization (MPO) planning assumptions and the most recent air models and requirements. The CO model run accounted for future planning emissions from the region, including the proposed redevelopment of March ARB, as described in the proposed action in the FEIS. The results of that analysis showed no exceedances of the CO standard in the vicinity of March ARB.

Ozone. Conformity will be analyzed for ozone based on EPA Criterion 93.158(a)(5)(i)(A), in which it is determined and documented by the SCAQMD that the proposed action would result in a level of emissions, which, together with all other emissions in the nonattainment area, would not exceed the emissions budget specified in the applicable SIP.

The analysis will compare the peak annual project emissions from the proposed joint use airport with the 1994 AQMP emissions budget for March ARB. The 1994 AQMP emissions budget is presented in Exhibit 1. The 1994 AQMP defines its emissions baseline based on inventory data for the year 1990. The 1994 AQMP emissions budget for March ARB is defined for all conformity-related emissions sources. Military aircraft emissions were provided by SCAQMD. Other conformity-related emissions sources associated with March ARB activities are estimated based on 1990 activity levels. The primary source used for these other emissions sources is the 1992 March ARB emissions inventory presented in the FEIS. The 1992 inventory was determined to be representative of 1990 emissions for nonaircraft-related sources, since 1990 employment levels were within 97% of 1992 activity levels because of the slight decrease in employment levels at the baseline year. Permitted sources are excluded from the inventory. Motor vehicle emissions are adjusted for future years to reflect the emissions reductions and oxygenated fuel requirements included in the appropriate EMFACF1.1 emissions factors.

The peak annual project emissions will be estimated as discussed under the Conformity Applicability section of this protocol using methods that are consistent with the March FEIS, the CEQA handbook guidelines, and the 1994 AQMP.

Nitrogen Dioxide. Because there is no post-1990 approved SIP for NO₂, conformity will be demonstrated for NO₂ on the basis of EPA Criterion 93.158(a)(5)(iv), in which the federal agency shows that the total direct and indirect NO_x emissions from the proposed action remain at or below baseline emissions.

The analysis will compare the peak annual total direct and indirect emissions with the proposed joint use airport with the historic baseline for March ARB. The historic baseline for March ARB will be defined for all conformity-related emissions sources. The historic baseline will reflect 1990 activity levels and will be adjusted to reflect appropriate emissions factors for future years. Military aircraft emissions will be provided by SCAQMD. The primary source used for these other emissions sources will be the 1992 March ARB emissions inventory presented in the FEIS. The 1992 inventory was determined to be representative of 1990 emissions for nonaircraft-related sources, since 1990 employment levels were within 97% of 1992 employment levels. Permitted sources will be excluded from the inventory. The resulting NO_x emissions baseline is the same as the 1994 AQMP emissions budget for March ARB, as described above.

The peak annual project emission will be estimated as discussed under the Conformity Applicability section of this protocol using methods that are consistent with the March FEIS, the CEQA Handbook guidelines, and the 1994 AQMP.

EXHIBIT 1 SIP Budget/1990 Historic Baseline

Year	Source	Pollutant (tons/yr)			
		CO	NO _x	PM ₁₀	VOC
1990	Aircraft	652.53	406.02	336.54	1,095.13
	Aerospace ground equipment	3.73	0.70	0.08	0.46
	Motor vehicles	5,102.07	601.25	17.59	617.86
	Other sources	400.78	5.12	6.24	573.97
	Total	6,159.11	1,013.08	360.45	2,287.41
1996	Aircraft	652.53	406.02	336.54	1,095.13
	Aerospace ground equipment	3.73	0.70	0.08	0.46
	Motor vehicles	3,587.32	393.96	11.59	365.35
	Other sources	400.78	5.12	6.24	573.97
	Total	4,644.36	805.80	354.45	2,056.43
1997	Aircraft	652.53	406.02	336.54	1,095.13
	Aerospace ground equipment	3.73	0.70	0.08	0.46
	Motor vehicles	3,353.44	377.91	11.28	365.35
	Other sources	400.78	5.12	6.24	573.97
	Total	4,410.48	789.76	354.14	2,034.91
1999	Aircraft	652.53	406.02	336.54	1,095.13
	Aerospace ground equipment	3.73	0.70	0.08	0.46
	Motor vehicles	2,297.39	350.07	10.85	326.08
	Other sources	400.78	5.12	6.24	573.97
	Total	4,034.43	761.91	353.71	1,995.63
2000	Aircraft	652.53	406.02	336.54	1,095.13
	Aerospace ground equipment	3.73	0.70	0.08	0.46
	Motor vehicles	2,752.51	334.38	10.69	300.40
	Other sources	400.78	5.12	6.24	573.97
	Total	3,809.55	746.22	353.56	1,969.95
2002	Aircraft	652.53	406.02	336.54	1,095.13
	Aerospace ground equipment	3.73	0.70	0.08	0.46
	Motor vehicles	2,400.41	306.96	10.46	257.97
	Other sources	400.78	5.12	6.24	573.97
	Total	3,457.45	718.81	353.32	1,927.20
2005	Aircraft	652.53	406.02	336.54	1,095.13
	Aerospace ground equipment	3.73	0.70	0.08	0.46
	Motor vehicles	1,974.56	268.06	10.23	202.24
	Other sources	400.78	5.12	6.24	573.97
	Total	3,031.59	679.90	353.09	1,871.80

EXHIBIT 1 (Cont.)

Year	Source	Pollutant (tons/yr)			
		CO	NO _x	PM ₁₀	VOC
2007	Aircraft	652.53	406.02	336.54	1,095.13
	Aerospace ground equipment	3.73	0.70	0.08	0.46
	Motor vehicles	1,796.91	248.67	10.15	176.79
	Other sources	400.78	5.12	6.24	573.97
	Total	2,853.95	660.51	353.01	1,846.34
2008	Aircraft	652.53	406.02	336.54	1,095.13
	Aerospace ground equipment	3.73	0.70	0.08	0.46
	Motor vehicles	1,711.67	240.88	10.11	164.03
	Other sources	400.78	5.12	6.24	573.97
	Total	2,768.71	652.72	352.97	1,833.58
2009	Aircraft	652.53	406.02	336.54	1,095.13
	Aerospace ground equipment	3.73	0.70	0.08	0.46
	Motor vehicles	1,623.23	229.35	10.03	147.11
	Other sources	400.78	5.12	6.24	573.97
	Total	2,680.27	641.20	352.90	1,816.66

Particulate Matter. Conformity will be demonstrated for PM₁₀ on the basis of EPA Criterion 93.158(a)(4)(ii), in which the SCAQMD determines and documents that areawide modeling is appropriate, that local scale modeling analysis is not needed, and that the total direct and indirect emissions from the action in future years do not increase emissions with respect to baseline emissions (93.158(a)(5)(iv)).

The analysis will compare the peak annual total direct and indirect emissions with the proposed joint use airport with the historic baseline for March ARB. There is no post-1990 EPA-approved SIP for PM₁₀. The historic baseline for March ARB will be defined for all conformity-related emissions sources. The historic baseline will reflect 1990 activity levels and will be adjusted to reflect appropriate emissions factors for future years. Military aircraft emissions will be provided by SCAQMD. The primary source used for these other emissions sources will be the 1992 March ARB emissions inventory presented in the FEIS. The 1992 inventory was determined to be representative of 1990 emissions for nonaircraft-related sources, since 1990 employment levels were within 97% of 1992 employment levels. Permitted sources will be excluded from the inventory. The resulting particulate emissions baseline is the same as the 1994 AQMP emissions budget for March ARB, as described above.

The peak annual project emissions will be estimated as discussed under the Conformity Applicability section of this protocol by using methods consistent with the March FEIS, the CEQA Handbook guidelines, and the 1994 AQMP.

SIP Consistency

The conformity analysis must also demonstrate that total direct and indirect emissions from the federal action are consistent with the applicable SIP requirements and milestone, including:

- Reasonable further progress schedules,
- Assumptions specified in the attainment or maintenance demonstration; and
- SIP prohibitions, numerical emission limits, and work practice requirements.

The applicable SIP for ozone is the 1994 AQMP. There is no post-1990 SIP to address NO₂, PM₁₀, or CO pollutants. The conformity analysis focuses on the proposed action's consistency with the 1994 AQMP. Consistency with the SIP will be assessed through identification of the relevant short- and intermediate-term control measures contained in the 1994 SIP, and determining that the project would be in compliance. In addition, the analysis considers the proposed 1997 AQMP policies that are currently undergoing review for finalization by the California Air Resources Board (CARB).

