United States Air Force Conformity Guide



United States Air Force Conformity Guide





TABLE OF CONTENTS

NO	TATION	vii
AC	RONYMS, INITIALISMS, AND ABBREVIATIONS	vii
UN	ITS OF MEASURE	ix
1.0	BACKGROUND	1
	1.1 PURPOSE	1
	1.2 STATUTORY AND REGULATORY FRAMEWORK	
	1.3 AIR FORCE ACTIVITIES AND RESPONSIBILITIES	4
	1.3.1 The Deputy Assistant Secretary of the Air Force for Environment,	
	Safety and Occupational Health (SAF/IEE)	4
	1.3.2 The Deputy General Counsel for Installations and Environment (SAF/GCN)	5
	1.3.3 Headquarters, Department of the Air Force, Office of the Civil	
	Engineer, Installations and Logistics, Environmental Division	
	(HQ USAF/A7CAN)	
	1.3.4 Air Force Legal Operations Agency, Environmental Law and Litigatio	n -
	Division (AFLOA/JACE)	
	1.3.5 Major Command (MAJCOM)	3
	1.3.6 Air Force Center for Engineering and the Environment/Technical Services Division (AFCEE/TD) – Air Quality Subject Matter Expert,	
	and Regional Environmental Office (AFCEE/REO)	5
	1.3.7 Installation-Level Activities and Responsibilities	
2.0	CONFORMITY REQUIREMENTS	
	2.1 GENERAL	
	2.2 APPLICABILITY ANALYSIS	
	2.2.1 Overview.	
	2.2.2 Procedure	
	2.2.3 Documentation of Nonapplicability	
	2.3 CONFORMITY DETERMINATION PROCESS	
	2.3.1 General	21
	2.3.2 Procedure	22
3.0	INTERACTIONS WITH OTHER REGULATORY REQUIREMENTS	35
	3.1 NATIONAL ENVIRONMENTAL POLICY ACT	35
	3.1.1 General Conformity and a CATEX	
	3.1.2 General Conformity and an EA or an EIS	
	3.1.3 Record of Decision or Finding of No Significant Impact	
	3.1.4 Integrating the EIAP/NEPA and General Conformity Processes	
	3.2 BASE REALIGNMENT AND CLOSURE	
	3.3 TITLE V OPERATING PERMIT	
	3.4 EMISSIONS INVENTORIES	39

4.0	SPECIAL ISSUES	41
	4.1 PLANNING	41
	4.1.1 General	41
	4.1.2 Emissions Budgets	41
	4.1.3 Early Emission Reduction Credits	
	4.2 METROPOLITAN PLANNING ORGANIZATIONS	43
	4.3 CLASSIFIED ACTIONS	
	4.4 ACTIONS INVOLVING MULTIPLE FEDERAL AGENCIES	44
	4.5 ROLE OF THE COMMUNITY	45
5.0	REFERENCES	47
6.0	RESOURCES	49
	6.1 FEDERAL LEGISLATION	49
	6.2 FEDERAL REGULATION	49
	6.3 NONATTAINMENT AND MAINTENANCE AREAS	50
	6.4 EPA GUIDANCE	
	6.5 USAF GUIDANCE AND TOOLS	
	6.6 EMISSIONS CALCULATION TOOLS	51
	6.6.1 Documents and Databases	51
	6.6.2 Computer Programs	
	6.7 CONFORMITY EVALUATION TOOLS	54
7.0	GLOSSARY	57
AP	PENDIX A: EXAMPLES OF ACTIONS EXEMPT FROM GENERAL CONFORMITY	61
A D		
AP	PENDIX B: SUGGESTED RECORD OF NONAPPLICABILITY (RONA)	67

LIST OF FIGURES

FIGURE 2.1	Flowchart of Applicability Analysis	8
FIGURE 2.2	Flowchart of the Conformity Determination Procedure	23
	LIST OF TABLES	
TABLE 1.1	National Ambient Air Quality Standards	2
TABLE 2.1	General Conformity De Minimis Levels (Thresholds)	19
TABLE 2.2	Conformity Determination Criteria	26
TABLE 2.3	Summary of Conformity Determination Criteria	27
TABLE 4.1	Time Requirements for Major Tasks in Conformity Review	42

FINAL

This page is intentionally blank.

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/REO Air Force Center for Engineering and the Environment/Regional

Environmental Office

AFCEE/TD HQ Air Force Center for Engineering and the Environment, Technical

Support Division

AFCEE/TDNQ HQ Air Force Center for Engineering and the Environment Technical

Support Division, Natural Infrastructure and Quality

AFI Air Force Instruction

AFLOA/JACE Air Force Legal Operations Agency, Environmental Law and Litigation

Division

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

AP-42 Compilation of Air Pollutant Emission Factors (U.S. Environmental

Protection Agency)

APIMS Air Program Information Management System

AQMP Air Quality Management Plan

ARB Air Reserve Base

BRAC Base Closure and Realignment

BX base exchange CAA Clean Air Act

CAC Common Access Card CATEX categorical exclusion

CEQA California Environmental Quality Act of 1970

CERCLA Comprehensive Environmental Response, Compensation, and Liability

Act

CFR Code of Federal Regulations

CO carbon monoxide

CoP Air Force Air Managers' Community of Practice

DENIX Defense Environmental Network Information Exchange

DISA Defense Information Systems Agency

DoD U.S. Department of Defense EA environmental assessment

EDMS Emission Dispersion Modeling System

EERC early emissions reduction credit

EIAP Environmental Impact Analysis Process

EIS Environmental Impact Statement EO environmental organization

EPA U.S. Environmental Protection Agency
FAA Federal Aviation Administration
FEIS Final Environmental Impact Statement
FONSI Finding of No Significant Impact

GC general conformity
HAP hazardous air pollutant

HQ Headquarters

HQ AFCEE Air Force Center for Engineering and the Environment

HQ USAF Headquarters, Department of the Air Force

HQ USAF/A7 Headquarters, Department of the Air Force, Office of the Civil Engineer HQ USAF/A7CAN Headquarters, Department of the Air Force, Office of the Civil Engineer,

Installations and Logistics, Environmental Division

ICAO International Civil Aviation Organization

MAJCOM Major Command

MPO Metropolitan Planning Organization

MSA/CMSA Metropolitan Statistical Area(s)/Consolidated Metropolitan Statistical

Area(s)

NAAQS National Ambient Air Quality Standards NEPA National Environmental Policy Act

NH₃ ammonia

NO₂ nitrogen dioxide NO_x oxides of nitrogen NSR New Source Review

O₃ ozone Pb lead

PM₁₀ particulate matter with an aerodynamic diameter of 10 μ m or less PM_{2.5} particulate matter with an aerodynamic diameter of 2.5 μ m or less

PSD Prevention of Significant Deterioration

PTC Presumed to conform

REO AFCEE Regional Environmental Office (Western, Central, and Eastern)

ROD Record of Decision

RONA Record of Nonapplicability

SAF/GCN Department of the Air Force, Deputy General Counsel (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

SIP¹ State Implementation Plan SMP Smoke Management Plan

SO₂ sulfur dioxide SOW Statement of Work

_

¹ In this document, SIP is used to include both SIPs and TIPs. TIP can also refer to a Transportation Improvement Program under Transportation Conformity.

FINAL

Tribal Implementation Plan
total organic compound
Urban Emissions Model
uniform resource locator
United States Air Force
United States Code

VOC volatile organic compound

UNITS OF MEASURE

ft	foot (feet)	tpy	tons per year
km	kilometer(s)	yr	year(s)
m^3	cubic meter(s)	μg	microgram(s)
ppm	part(s) per million	μm	microns (micrometer)
ton	short ton(s)		

FINAL

This page is intentionally blank.

1.0 BACKGROUND

1.1 PURPOSE

This guidance provides assistance in understanding and complying with the general conformity (GC) requirements of the Clean Air Act (CAA).² 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 Closure and Realignment (BRAC).

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

Applicability

General conformity requirements apply only if the proposed federal action (1) would take place in an area designated by the U.S. Environmental Protection Agency (EPA) nonattainment or maintenance for one or more of the National Ambient Air Quality Standards (NAAQS), emissions (2) would cause nonattainment or maintenance criteria pollutants to increase above specified 'de minimis" amounts.

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 normally provides for timely consideration of conformity requirements (see Section 3.1). The EIAP implements both general and USAF-specific requirements for the regulation implementing NEPA.

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 (public health related) and secondary (public 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 NAAOS.) 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 longer-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}, of which coarse particulate matter has an aerodynamic diameter of less than 10 µm, and fine particulate matter has an aerodynamic diameter less than 2.5 µm, respectively), nitrogen dioxide (NO₂), carbon monoxide (CO), ozone (O₃), and lead (Pb). The EPA designates areas where air quality does not meet one or more of the NAAQS as nonattainment areas; nonattainment status is assigned for each pollutant. These designations are usually based on measured (monitored) ambient air quality. In a nonattainment area, the responsible agency must develop a State Implementation Plan (SIP)³ to document how it will attain and maintain the NAAQS. The

² 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 Section 7).

³ 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.

Regional EPA office must review and approve the SIP. Areas that previously were nonattaining but where air quality has improved to meet the NAAQS may be designated as maintenance areas by EPA, and regulators may develop and implement an air quality maintenance plan.

Section 176(c) of the CAA prohibits federal departments, agencies, and instrumentalities from taking⁴ various actions in nonattainment or maintenance areas unless they first demonstrate conformity with the EPA-approved 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 federal actions in nonattainment or maintenance areas that would emit criteria pollutants or their precursors. The CAA separated

TABLE 1.1 National Ambient Air Quality Standards (a)

	Primary	Standards	Secondary Standards		
Pollutant	Level	Averaging Time	Level Averaging Tin		
Carbon Monoxide	9 ppm (10 mg/m ³)	8-hour (b)	None		
	35 ppm (40 mg/m³)	1-hour (b)			
Lead	$0.15 \ \mu g/m^3$	Rolling 3-Month Average	Sam	ne as Primary	
	$1.5 \mu g/m^3$	Quarterly Average	Sam	ne as Primary	
Nitrogen Dioxide	53 ppb (100 μg/m ³)	Annual (Arithmetic Average)	Sam	ne as Primary	
	100 ppb	1-hour ^(c)		None	
Particulate Matter (PM ₁₀)	150 μg/m ³	24-hour (d)	Same as Primary		
Particulate Matter (PM _{2.5})	15.0 μg/m ³	Annual (e) (Arithmetic Average)	Same as Primary		
	$35 \mu g/m^3$	24-hour (f)	Same as Primary		
Ozone	0.075 ppm (2008 standard)	8-hour ^(g)	Same as Primary		
	0.08 ppm (1997 std)	8-hour (h)	Sam	ne as Primary	
	0.12 ppm	1-hour (i)	Sam	ne as Primary	
Sulfur Dioxide	0.03 ppm	Annual (Arithmetic Average)	(1)	0.5 ppm 300 μg/m³)	
	0.14 ppm	24-hour (b)		3-hour (b)	
	75 ppb	1-hour ^(j)		None	

Source: EPA (2010a).

⁴ The Act's language states, "No department, agency, or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity which does not conform to an implementation plan..."

- (a) Current as of June 19, 2010. Revisions may have occurred; for the latest standards, consult http://epa.gov/air/criteria.html#5.
- (b) Not to be exceeded more than once per year.
- (c) To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm.
- (d) Not to be exceeded more than once per year on average over 3 years.
- ^(e) To attain this standard, the 3-year average of the weighted annual mean $PM_{2.5}$ concentrations from single or multiple community-oriented monitors must not exceed 15.0 μ g/m³.
- ^(f) To attain this standard, the 3-year average of the 98^{th} percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed $35 \mu g/m^3$.
- (g) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm.
- (h) (1) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.
 - (2) The 1997 standard will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.
 - (3) EPA is in the process of reconsidering these standards set in March 2008.
- (i) (1) EPA revoked the 1-hour ozone standard in all areas, although some areas have continuing obligations under that standard ("anti-backsliding").
 - (2) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1 .
- (i) To attain this standard, the 3-year average of the 99th percentile of daily maximum 1-hour average at each monitor must not exceed 75 ppb.

conformity 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. However, in most cases, close coordination with and concurrence from local (Metropolitan Planning Organizations [MPOs]), state, and EPA regional offices that have CAA jurisdiction will be needed to assure general conformity compliance. Conformity requires that proposed federal actions 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, emissions 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). These regulations detailed the procedures and criteria for demonstrating that a federal action conforms to the EPA-approved SIP. Since issuing the 1993 regulations, EPA has revised the GC regulations twice. The first revision included de minimis levels for PM_{2.5} (71 FR 40420) following a revision in the NAAQS. Subsequently, a more substantial revision to Subpart B and a deletion of most of subpart W were issued (75 FR 17254, "40 CFR 51 and 93 Revisions to the General Conformity Regulations," April 5, 2010).5

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 Engineering and the Environment (HQ AFCEE), and the installation all have responsibilities for conformity; however, not every responsible organization is involved in every conformity evaluation.

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

SAF/IEE approves all conformity determinations.

-

⁵ Subpart W required states to develop SIPs for conformity. In August 2005, Congress eliminated this requirement. Because the two subparts were essentially identical, EPA deleted all of Subpart W except for §51.851, making 40 CFR 93 subpart B the single regulation for conformity. (The remaining §51.851 deals with requirements for states that choose to submit general conformity SIPs.) The revisions to 40 CFR 93 and 40 CFR 51, Subpart W became effective on July 6, 2010. The rule changes were promulgated at 75 FR 17254–17279, April 5, 2010.

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

SAF/GCN provides advice to SAF/IEE on general conformity determinations. This office 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 (HQ USAF/A7CAN)

HQ USAF/A7CAN reviews conformity determinations for completeness and consistency with USAF Policy Guidance prior to SAF/IEE approval.

This office provides guidance and policy direction regarding preparation of conformity determinations.

1.3.4 Air Force Legal Operations Agency, Environmental Law and Litigation Division (AFLOA/JACE)

AFLOA/JACE advises the Civil Engineer and MAJCOMs on compliance issues related to implementation of the General Conformity regulatory requirements.

1.3.5 Major Command

Each MAJCOM manages the conformity process within its command.

Each MAJCOM provides consistency among its installations.

1.3.6 Air Force Center for Engineering and the Environment/Technical Support Division (AFCEE/TD) – Air Quality Subject Matter Expert, and Regional Environmental Office (AFCEE/REO)

AFCEE/TD provides technical consultations and resources for conformity determinations.

AFCEE/TD provides help with contracting for assistance with conformity determinations.

AFCEE/TD provides liaison and coordination with the regional EPA, State, and Tribal Air Quality Officials regarding SIP emissions budgets, emission reduction credits, conformity applicability, and other air quality issues.

FINAL

AFCEE/TD is responsible for maintaining information on all installation's baseline emissions inventories and attainment status.

AFCEE/TD provides technical assistance in estimating emissions from major source facilities.

The air quality subject matter expert serves as the technical advisor for HQ USAF/A7CAN and SAF/IEE for conformity determinations and other air quality issues.

1.3.7 Installation-Level Activities and Responsibilities

The Environmental Organization (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 evaluation, identification of offsets, and documentation of completeness.

2.0 CONFORMITY REQUIREMENTS

2.1 GENERAL

A conformity evaluation is the multistep process used to determine and document that 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 demonstrate that the action conforms to the SIP. These components and ancillary requirements, such as public participation, are discussed below. A brief overview of applicability analysis and conformity determination is presented, followed by a detailed discussion.

2.2 APPLICABILITY ANALYSIS

Many USAF applicability analyses will find that conformity requirements are satisfied because the action is exempt, presumed to conform, or because 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. The adequacy of an applicability analysis is reviewable by federal district courts under the Administrative Procedure Act, and in some jurisdictions an inadequate or nonexistent applicability analysis would be a SIP rule violation, enforceable by private citizens and local, state, and federal regulators. In addition, EIAP/NEPA would require this documentation (Section 3.1), and EPA, state, or local regulators may review conformity actions. 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, U.S. Air Force Air Conformity Applicability Model (ACAM) reports, the Record of Nonapplicability (RONA) with supporting calculations, and other relevant information can 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 an eight-step flowchart of the applicability analysis. Although the flowchart presents the analysis as a single process, different parts of any federal action can take different paths. For example, consider an action that involves a new stationary source subject to New Source Review (NSR), the operation of which will be supported by new workers who will commute to work.

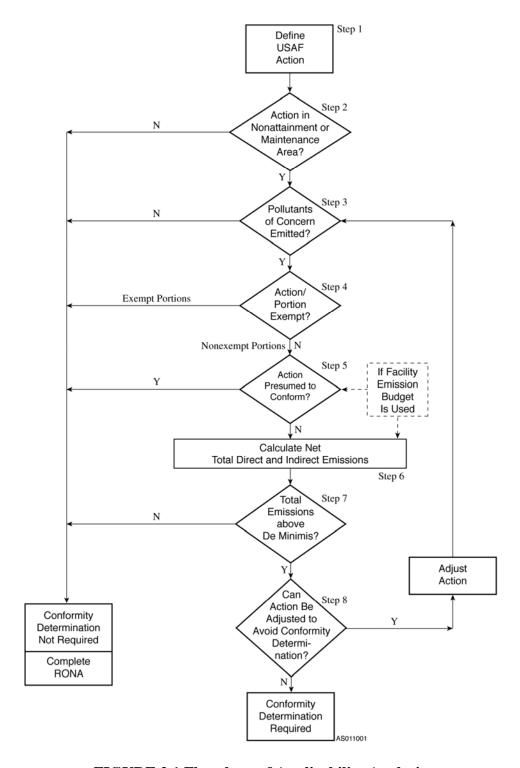


FIGURE 2.1 Flowchart of Applicability Analysis

During the operation phase, the stationary source would be exempt from conformity [Step 4 under CFR 93.153(d)(1)], but the indirect emissions from worker commutes would not. The de minimis comparison (Step 7 in Figure 2.1) for emissions during the operation phase would need to consider only the emissions from worker commutes. (If applicable, emissions from construction, and any other nonexempt emissions, would still need to be evaluated for conformity.)

2.2.2 Procedure

Step 1: Define the USAF Action. It is important to define the federal action properly, and to clearly define the base case. It is the comparison of emissions under the proposed action to those of the base case that forms the basis of the conformity applicability analysis. As discussed below, conformity requires consideration of both direct and indirect emissions, some of which

might not be subject to new source review and air permitting procedures. For conformity purposes, the scope, schedule, timing, and location of all portions of the action must be evaluated. The action is taken or started on the date the USAF signs or approves the permit, license grant, or contract or otherwise physically begins the action (40 CFR 93.152). Actions with phased schedules or spatially separated parts cannot be segmented into smaller actions to avoid making a conformity determination. Emissions must be calculated on an annual (calendar year) 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 net annual emission increases below conformity threshold values.

A small action is less likely to require a conformity determination than a larger action

Re-evaluation of Conformity

A new determination may be required for an action even after a final conformity 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(b)]. An ongoing activity does not require redeterminations so long as there are no new actions or additional emissions, and so long as the activities are within the scope of the final determination [40 CFR 93.157(d)]. A new conformity determination is not required for modified actions unless:

- The USAF had made a conformity determination for the unmodified action, and the emissions increase from the modification alone equals or exceeds the de minimis levels [40 CFR 93.157(a)];
- The prior USAF applicability analysis showed that a conformity determination was not needed, and the emissions from the unmodified action plus the emissions from the modification equal or exceed the de minimis levels [40 CFR 93.157(d)].

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 regulatory 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. There are two considerations: whether the action takes place in a nonattainment or maintenance area and, if in a nonattainment area, whether it starts within a one-year grace period following the nonattainment designation. If the action takes place in an

attainment area, conformity does not apply. Because of uncertainty 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. Conformity does not apply to any action located in an attainment area, even if indirect emissions associated with the action would occur in a nonattainment or maintenance area.

Determining the attainment/maintenance status of an area is usually a relatively easy task. There are two parameters of interest: the area's attainment/maintenance status for each pollutant of concern, and additionally, for ozone and PM₁₀ nonattainment areas, the associated severity class, ⁶ which is one of the determinants of the de minimis levels used in Step 7.

Sources of information on nonattainment/maintenance status and designation dates include the following:

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

The EPA regional offices and state and local air regulatory agencies generally have the latest information and should be aware of any pending changes. The EPA's codified designations are updated on an annual basis and thus may be out of date . The EPA's Greenbook is generally current and has links to Regional Office contacts for each criteria pollutant.

In nonattainment areas, different conformity requirements may apply, depending on when the action is taken or started. For existing NAAQS, if the action is taken or started (see Section 7) within one year following the effective date of a new final nonattainment designation, the pre-designation conformity requirements apply. If the action is taken or started after this grace period, the post designation conformity requirements apply, and the action must be evaluated for conformity on the basis of the new designation and classification [40 CFR 93.153(k)]. For new NAAQS designations, general conformity applies on the effective date in areas currently designated nonattainment of the same criteria pollutant.

An action may cause emissions in more than one nonattainment or maintenance area. Conformity must be evaluated for each area separately [40 CFR 93.150(e)]. A separate applicability analysis and, if required, a separate conformity determination are needed for each area. For example, if an action having total direct and indirect emissions of 55 tons per year (tpy) takes place in two nonattainment areas each with a de minimis threshold of 50 tpy, but emits 35 tpy in one area and 20 tpy in the other, the action would fall below the applicable de minimis

_

⁶ Marginal, moderate, serious, and severe, or extreme for ozone, and moderate or serious for PM₁₀.

thresholds, and a conformity determination would not be required. If the action emitted 85 tpy total, 65 tpy in one area and 20 tpy in the other, a conformity determination would be required in the first area, but not in the second.

Step 3: Determine Whether the Action Would Cause Emissions of Pollutants of Concern. General conformity requires analysis only of emissions of pollutants of concern, defined as those criteria pollutants and their precursors for which the area is designated nonattainment or that are covered by a maintenance plan. Section 7 lists the precursors recognized under conformity regulations. 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 and the SIP does not identify VOCs as a PM₁₀ precursor, 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 (49 USC 53) are subject to the requirements of transportation conformity. Such actions need not be considered part of the USAF action for purposes of general conformity [40CFR 93.153(a)].
- Actions with no emissions or emissions that are clearly de minimis [40 CFR 93.153(c)(2)].
- Actions having emissions that are not "reasonably foreseeable" (see Section 7) [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)]:
 - 1. The portion of an action that includes a major or minor new or modified stationary source requiring a permit under the CAA NSR or Prevention of Significant Deterioration (PSD) programs;
 - 2. Actions in response to emergencies (see Section 7), as defined in 40 CFR 93.152, typically commenced within hours or days of the emergency;

- 3. Research, investigations, studies, demonstrations, or training where no environmental detriment is incurred and/or the action furthers air quality research;
- 4. Alteration and additions of existing structures required by environmental legislation or regulations, such as hush houses for aircraft or emission control devices; 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 contain special provisions for extending the exemption beyond six months [see 40 CFR 93.153 (d)(2) and (e)]. There are also additional requirements for the research and CERCLA exclusions [see Appendix A and 40 CFR 93.153 (d)(3) and (d)(5)].

Step 5: Determine Whether the Proposed Action as a Whole (excluding portions screened out in Step 4) Is Presumed to Conform. If certain requirements are met, the following are presumed to conform and are exempt from conformity:

- If finalized in the Federal Register, actions on the Air Force presumed-to-conform (PTC) list [40 CFR 93.153(f)];
- Actions with SIP-approved, facility-wide emissions budgets [40 CFR 93.153(i)(1)];
- Prescribed fires [40 CFR 93.153(i)(2)]; and
- Actions identified in the SIP as presumed to conform [40 CFR 93.153(i)(3)].

Regardless of a presumption of conformity, no action can be presumed to conform if EPA or a third party can show that the action would cause one of the conditions prohibited in 40 CFR 93.153(j). In such an event, the conformity evaluation would need to be redone considering the other requirements of 40 CFR 93.153.

Actions on Air Force PTC List. Under 40 CFR 93.153(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. As of August 2010, the USAF is in the process of developing a presumed-to-conform list. 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).

Actions on a PTC list can be for individual nonattainment or maintenance areas, SIPs, or bases [40 CFR 93.153(g)(3)]. For example, if a SIP has a sector emissions budget for construction in a nonattainment area, the Air Force could, with state concurrence, include a construction emissions budget for an Air Force base in that area on the Air Force PTC list.

Actions on a PTC list may be combined for determining applicability but only if the total emissions from the combination would be less than the de minimis levels in Table 2.1 [40 CFR 93.153(f)]. For example, if a base were undertaking a program with several constituent actions listed on the PTC list, it would need to determine whether the total emissions from the combined PTC actions would exceed the de minimis levels.

Actions with Facility-Wide Emissions Budgets. The conformity regulations [40 CFR 93.161] set up a voluntary program under which a state can cooperate with a federal agency to develop and adopt or to revise a facility-wide emissions budget as part of the SIP. The budget would be used for conformity evaluations at facilities subject to federal oversight, such as

an Air Force Base. Budgets are for a set time period and must include specific compliance measures, such as periodic reporting to track how much of the original budget has been consumed. Individual bases must engage with their states up front to develop budgets, keep required reports up to date, and notify the state in the event that a revision is needed. Complete requirements are described in 40 CFR 93.161(a).

The advantage of this approach is that an action covered by a facility-wide budget may be presumed to conform, and a conformity determination is not required, if the net annual emissions from the action along with all other emissions from the facility subject to conformity do not exceed the facility-wide budget. Only if the emissions budget is exceeded does the action require conformity evaluation. In such a case, the applicability analysis might still find that the net emissions increases are less than de minimis thresholds, and a conformity determination is not required unless applicable thresholds are exceeded.

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

The USAF developed ACAM as a screening tool for performing general conformity applicability analyses. It uses limited, base-specific information calculate conformity-related emissions and potential conformity determination requirements proposed USAF action(s). The intended use is to compare the potential conformity requirements of various scenarios. ACAM can be used to replace Steps 6 and 7 of this guideline's procedures. ACAM output may be used document finding a 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.

Under 40 CFR 93.161(e), if the SIP includes a category for construction emissions, the negotiated facility-wide budget can exempt construction emissions from further conformity analysis.

Prescribed Fires. Prescribed fires must be conducted in accordance with a smoke management plan (SMP) meeting the requirements of EPA's Interim Air Quality Policy on Wildland and Prescribed Fires or an equivalent EPA replacement policy.

-

⁷ Provisions for facility-wide emissions budgets were included in the 2010 revisions to the general conformity regulations. Previously, such budgets were neither precluded nor specifically authorized by the regulations and were used by some states.

Actions Identified in an SIP as PTC. These items could be either specific actions or actions on a state PTC list. Individual bases must engage with their states up front to ensure that the SIP includes the actions appropriate to their operations.

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

- The greatest 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.
- The following emissions should be excluded when calculating the total: those from portions of the action that are exempt or presumed to conform (Steps 4 and 5). If an early emission reduction credit program has been established, the credit may be used to reduce the total net emissions if the reduction was implemented at the same facility and could have occurred in conjunction with the action [40 CFR 93.165(c)(1)]. (See Section 4.1.2 for additional details on the early emissions reduction program, including timing and the use of credits in multiple years.) Emissions reductions associated with

Net Emissions

40 CFR 93.152 defines "net" emissions as the sum of direct and indirect emissions increases and decreases caused by the federal action and emissions "caused by" the federal action as those that would otherwise not occur in the absence of the action. In other words, net emissions can be found by comparing the proposed action's net annual emissions with the emissions occurring in the absence of the action. In estimating net emissions, emissions controls included in the action design and planned mitigations should be included.

For future years, the net emissions comparison for the action can be made with a baseline that includes the growth that would occur even if the action were not taken, that is, growth not caused by the action (Woo 1996). For example, an estimate of future traffic emissions caused by additional personnel required by an action could exclude traffic emissions that would occur even without the action.

portions whose emissions are excluded should not be included in the netting process.

• Direct emissions are those that are caused or initiated by the USAF action in the same nonattainment or maintenance area as the action, that occur at the same time and place, and that are reasonably foreseeable.

Indirect emissions are those that are caused by the USAF action in the same
nonattainment or maintenance area in which the action is taking place but that
may occur later in time and may be further removed in distance from the action
itself but that are still reasonably foreseeable, those over which the USAF can
practically control, and those for which the Air Force has 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 greatest annual emissions. Similarly, if a single activity occurs in 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.

Emissions must originate in the nonattainment or maintenance area in which the action is located. For example, if a new stationary source is built in a nonattainment area and will require new workers for operation, only that portion of the indirect emissions from new worker commutes in the nonattainment area would need to be considered.

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 and emissions that are presumed to conform 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. Any indirect emissions not subject to NSR or PSD would need to be included.

Indirect emissions must be caused or initiated by the USAF action, be reasonably foreseeable, be practically controllable by the USAF, and be part of a continuing USAF program responsibility (see the Glossary, Section 7). Typical indirect sources for USAF actions include military aircraft operations, 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, because 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 practical means of controlling these discretionary trips.

Sources to Be Included. The text box, **Typical Emissions Sources for Air Source Actions** (page 17), 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 8), it cannot be segmented into separate smaller actions. EIAP/NEPA also has 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 would 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 performing conformity analyses:

- Motor vehicle emissions must be estimated by using the most current version of the EPA motor vehicle emissions model (MOVES2010) or the AFCEE Emissions Factors Guide⁸ [40 CFR 93.159(b)(1)]. The specified techniques must be used unless they are inappropriate, in which case the EPA Regional Administrator must grant written approval for other techniques to be used.
- Nonmotor vehicle emissions must be estimated by using the latest emissions factors from EPA in *Compilation of Air Pollutant Emission Factors* (AP-42) (EPA 2010b) or the AFCEE Emissions Factors Guide, ⁸ unless more accurate data, such as stack tests, are available [40 CFR 93.159(b)(2)].

Uncertainties regarding the acceptability of techniques other than those specifically listed should be resolved by consultation with the appropriate regulators.

Section 6 provides information on resources useful in calculating emissions.

_

⁸ See "Emission Calculation Tools/Documents and Databases" in Section 6 for availability of the AFCEE Emissions Factors Guide.

All emissions estimates should be realistic and technically defensible. The procedures

and factors used to prepare annual emissions inventories and permits would usually be acceptable for conformity but may 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 emissions 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 greatest annual emissions associated with the action. If more than one pollutant or precursor is involved, the greatest emissions may occur in different years for different pollutants. For example, a new source of VOCs could have its greatest total PM₁₀ emissions during construction and its greatest total VOC emissions during a year of full operations in which there are no construction activities.

To find the greatest annual emissions, it may be necessary to estimate the total net

Typical Emissions Sources for Air Force Actions

- Aircraft operations, including touch-and-goes (TGOs), landings and takeoffs (LTOs), climb-out and approach under 3,000 feet, taxiing, flybys, queuing.
- Ground operations.
- Other engine run-ups not included in Stationary Sources/Jet Engine Testing.
- Fuel storage.
- Refueling.
- Arming and de-arming.
- Aerospace ground equipment (AGE) operations.

Stationary Sources

- Fuel storage evaporative emissions and vehicle refueling emissions other than aircraft.
- Surface coating (painting) operations, including industrial, architectural, and striping of runways, aprons, taxiways, etc.
- Repair and maintenance activities, including those for aircraft (both on and off of the apron) and vehicles.
- Other industrial process operations, such as nondestructive inspection (NDI), plating, welding, and degreasing.
- Jet engine testing, including both on and off of the aircraft.
- Small arms and bombing range operations.
- Incinerator operations.
- Fire training exercises.
- Heating and power production, both nonemergency and emergency sources, including standby/emergency generators.
- Personnel housing (Visiting Officers Quarters, family housing).
- Support facilities (hobby shops, childcare, schools, hospitals, grounds maintenance).
- Open burning of vegetation.
- Prescribed/controlled burns.
- Remediation.

Construction

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

Mobile Sources

- Personally owned vehicle and bus operations other than those used by construction workers.
- Government-owned vehicles and on-the-job personal vehicle use.
- Operation of delivery vehicles and locomotives not used in construction.
- On- and off-road vehicle operations.
- Lawn and garden equipment operations.

<u>Emissions from Tenant Activities</u> (AAFES, Reserve units, National Guard, Customs, Drug Enforcement Agency, etc.)

direct and indirect emissions for the following: the calendar year with the greatest construction emissions, the calendar year with the greatest operations emissions, and the calendar year with

the greatest combination of construction and operations emissions. Typically, it is not necessary to make estimates for each year, because some years can be eliminated from consideration as having total emissions that are clearly lower 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 a single full year of operations.

Step 7: Compare the Greatest Annual Total Emissions to De Minimis Levels. For each pollutant or precursor of concern, the greatest net annual emissions change 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 2.1. The rates depend on the pollutant/precursor; whether the area is classified as nonattainment or maintenance and, 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, a conformity determination may be required. If one or more de minimis thresholds are exceeded, consideration should be given to adjusting the action to reduce net emissions changes to levels below thresholds, thereby avoiding the need for a conformity determination (Step 9).

TABLE 2.1 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 oxides of nitrogen (NO _x)	NA (b)	10
	Severe nonattainment	VOC or NO _x	NA	25
	Serious nonattainment	VOC or NO _x	NA	50
	Other	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
PM _{2.5}	Nonattainment or maintenance	PM _{2.5} Direct emissions	NA	100
		SO_2	NA	100
		$NO_x^{(c)}$	NA	100
		VOC or Ammonia (NH ₃) ^(d)	NA	100
Pb	Nonattainment	Pb	NA	25
	Maintenance	Pb	NA	25

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

^(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.

 $^{^{(}c)}$ Unless it is determined that NO_x is not a significant precursor.

^(d) If either a VOC or ammonia is determined to be a significant precursor.

Step 8: Determine Whether the Action Can Be Adjusted to Avoid a Conformity

Determination. There are two main reasons for avoiding a conformity determination, if possible: (1) the additional time required to complete a conformity determination (see Table 4.1), and (2) the additional resources required. If the action has emissions above de minimis levels, 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 become part of the action and must be included in the final design and execution of the action. If the action cannot be adjusted to keep the greatest 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. In addition, failure to document an applicability analysis or determination under the CAA is tantamount to a failure to conduct such an analysis; such a failure or omission leaves the USAF vulnerable to regulatory or citizen-suit enforcement. In this regard, Air Force Instruction (AFI) 32-7040, Air Quality Compliance, and 32 CFR 989, Environmental Impact Analysis Process (EIAP), 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 finding could be accomplished as

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; the conduct of 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 process of demonstrating conformity with the SIP, including air quality modeling.

Conformity Determination: The evaluation made after an applicability analysis that a USAF action conforms to the SIP. The process includes a 30-day comment period on the draft determination.

part of a categorical exclusion (CATEX) document (if one is prepared) on Air Force Form 813, Air Force Form 332, or U.S. Department of Defense Form 1391 or by using the RONA as described in the following. (AF 813 is required for EIAP/NEPA by 32 CFR 989.) Coordination of the finding of nonapplicability with the MAJCOM is recommended.

To adequately document the finding, the following must be provided:

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

"Adequate documentation" could include spreadsheet calculations, ACAM reports, the RONA (with supporting calculations), emissions calculations with references, and other documents related to determining an action's status as "exempt," "presumed to conform," or "included in a facility-wide emissions budget." 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 that 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 in the process 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 the applicable SIP and must be completed before initiating the action. Because 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 project delays.

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, the action requiring a conformity determination 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. A conformity determination must follow the requirements of 40 CFR 93.155 through 93.160 and 40 CFR 93.162 through 195 [40 CFR 93.154].

Initial Consultations and Contracting. It is recommended that, in addition to notifying and consulting (1) base personnel responsible for the action, (2) those involved in assessing impacts for EIAP/NEPA, and (3) those responsible for assessing air impacts, the appropriate USAF offices should be notified and consulted as soon as possible after identifying the need for a conformity determination. These offices include the following:

- The applicable MAJCOM for technical assistance and experience,
- HQ AFCEE Air Quality Subject Matter Expert and/or REOs (Western, Central, and Eastern Office),
- USAF/A7CAN for compliance issues and experience with actions of similar scope,
- Air Force Legal Services Agency, Environmental Law and Litigation Division (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 MPO if traffic, demographic data, or growth projections 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.

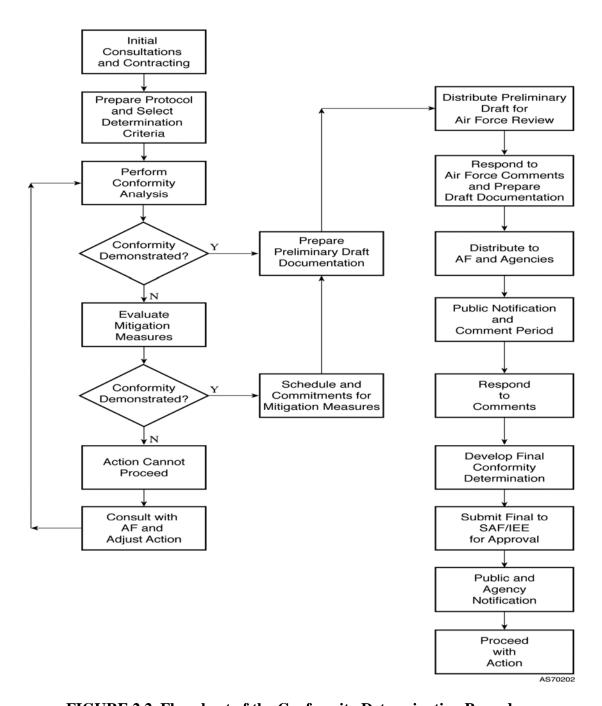


FIGURE 2.2 Flowchart of the Conformity Determination Procedure

Given the extent of the conformity evaluation (possibly including modeling) and the time required, contractor assistance may be needed for the conformity determination process. The decision on whether to obtain contractor support should be made early, because procuring a contractor may extend the overall schedule.

Prepare Analysis Protocol and Select the Conformity Determination Criteria. These critical steps determine what components will be required during the analysis phase. Although Figure 2.2 indicates a single straight path, some iteration may be required as alternative approaches are considered.

Prepare Analysis Protocol. 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. 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;
- The baseline year against which emissions increases and decreases are determined;
- Emissions factors, their sources, and emissions models;
- Pollutants or precursors for which analysis is required and their 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 and/or facility-wide emissions budgets, if available.

Select Determination Criteria. The state or other responsible agency should be involved in selecting the criterion used to demonstrate conformity. Most of the determination criteria require the involvement of the state and/or these agencies in either choosing the criterion to be used or certifying that the criterion has been met. Two sets of criteria must be met to show that an action conforms to the SIP:

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

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 applicability analysis was conducted.

40 CFR 93.158(a) specifies 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 2.2 and 2.3; the full

Demonstrating Conformity

To demonstrate conformity for an action, the USAF must do one or more of the following:

- Demonstrate that the total emissions are specifically accounted for in the SIP;
- Obtain a written statement from the state that the total emissions from the action, along with all other emissions in the area, will not exceed SIP emissions budgets;
- Obtain a written commitment from the state to revise the SIP to include the emissions from the action:
- Obtain a statement from the MPO for the area that any on-road vehicle emissions are included in the regional transportation plan;
- Fully offset the total emissions; or
- Conduct air quality modeling.

text of the regulations should be consulted for all pertinent details. As shown in Table 2.2, when demonstrating conformity for a particular pollutant, only the specified criteria may be used. Any one or any combination of these methods can be used in a conformity determination.

Baseline emissions against which to measure increases and decreases are specified for some criteria. 40 CFR 93.158(a)(5)(i) and 40 CFR 93.158(a)(5)(iv) specify the criteria. The choice can be complicated and depends, in part, on the sequencing of SIP approval and attainment/nonattainment designation and redesignation. To avoid an incorrect choice, the appropriate regulatory agency should be consulted.

Selection of an appropriate baseline and the choice of criteria, as well as the methods and measures for demonstrating that they have been met, may require coordination with the regulators. It is recommended that regulators be involved even if not required by the criteria being considered. Specific criteria are discussed below.

Determining Baseline Emissions. Criterion 5D requires a baseline. The baseline year is the most current calendar year with a complete emissions inventory available before the area was designated, unless EPA sets another year or the emission budget in the SIP [40 CFR 93.158(a)(5)(iv)].

Action in SIP or Included in SIP Emissions Budgets. The simplest means of demonstrating conformity is for the total emissions from the specific action to be accounted for in the SIP. Alternatively, the state may determine that the emissions would not exceed the

TABLE 2.2 Conformity Determination Criteria (a)

	Criteria Pollutant or Precursor									
	Pb	CO	O_3	I	PM_{10}	F	$^{\rm P}M_{2.5}$	SO_2	NO_2	40 CFR 93
Criterion	Direct	Direct	Precursor	Direct	Precursor	Direct	Precursor	Direct	Direct	Reference
1	X	X	X	X	X	X	X	X	X	158(a)(1)
2			X		X		X		X	158(a)(2)
3A	X	X		X		X		X	X	158(a)(3)(i)
3B	X	X		X		X		X	X	158(a)(3)(ii)
4A		X		X		X				158(a)(4)(i)
4B1		X		X		X				158(a)(4)(ii)
4B2		X		X		X				158(a)(4)(ii)
5	X	X	X	X		X		X	X	158(a)(5)

Source: 40 CFR 93.158.

⁽a) All criteria cannot be used for each pollutant. For a given pollutant, only those criteria indicated by an X can be used. Table 2.3 summarizes the requirements of each criterion.

TABLE 2.3 Summary of Conformity Determination Criteria (a)

Criterion	Summary
1	Total emissions specifically identified and accounted for in SIP, reasonable further progress milestone, or in a facility-wide emissions budget in the SIP [40 CFR 93.158(a)(1)].
2	Total emissions fully offset within the area or nearby area of equal or higher classification through a SIP revision or similarly enforceable measure so that there is no net emissions increase [40 CFR 93.158(a)(2)].
3A	Area-wide 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 area-wide modeling is not needed, and local air quality modeling of total emissions satisfies Sec. 158(b) [40 CFR 93.158(a)(4)(i)]; or
4B1	Responsible agency determines that local modeling is not needed, and area-wide modeling of total emissions satisfies Sec. 158(b) [40 CFR 93.158(a)(4)(ii)]; or
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 after the area was designated nonattainment and 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 or nearby area of equal or higher classification through a SIP revision or an equally enforceable measure 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 since the area was redesignated or reclassified, the total emissions for future years do not increase 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 93.158.

^(a) Additional conditions apply to these criteria. Consult the referenced section of 40 CFR 93.158 for these conditions.

emissions budgets in the SIP. Such determinations may be difficult to obtain unless the installation has worked closely with the responsible agency to incorporate expected growth estimates in SIP revisions. Emissions budgets should:

- Identify specific categories associated with anticipated USAF actions, including construction equipment, ground support equipment, and USAF aircraft operations;
- · Include facility-wide emissions budgets; and
- Use the same emissions estimation procedures and input data (e.g., aircraft operation cycles) that it is expected will be used when emissions are calculated for anticipated actions.

Some maintenance areas may be subject to limited maintenance plans for certain pollutants and severity classifications (Paisie 1995, Shaver 1994, and Wegman undated). If emissions budgets are used, under a limited maintenance plan they may be treated as essentially not constraining for the length of the maintenance period Federal actions in these areas could be considered to satisfy the budget test specified in 93.158(a)(5)(i)(A). In areas with such plans, the regulators should be consulted to clarify the applicable requirements.

Include Action in a SIP Revision. If the action is not included in the SIP or a SIP budget, the state may commit to including its emissions in a future SIP revision. If the state's governor is willing to make such a commitment, he or she must satisfy the requirements of 93.158(a)(5)(i)(B). The state should be contacted to determine the feasibility of pursuing this approach.

Action in Transportation Plan. For on-road vehicles, the MPO may be able to determine that these indirect emissions are included in the transportation plan or transportation improvement plan. Such a determination can involve coordination between the USAF, the MPO, and the state and, if a positive determination is made, simplify the analysis of indirect emissions from vehicles.

Offsets and Mitigation Measures. Offsets are emission reductions that are defined as follows: they are (1) quantifiable; (2) consistent with the SIP attainment and reasonable further progress demonstrations; (3) surplus to the reductions required by other applicable SIP provisions; (4) implemented through a SIP revision or similarly enforceable measure; and (5) permanent within the timeframe of the action. Mitigation measures are any measures that would lower the total emissions sufficiently to achieve a positive conformity determination and must satisfy the same requirements as offsets. To demonstrate conformity when using offsets or mitigation measures, the total direct and indirect emissions from the action must be fully offset within the affected nonattainment or maintenance area so that there is no net increase in emissions of the pollutants of interest. Offsets and mitigations could involve non-USAF entities, but could also involve other USAF installations in the same or neighboring areas. Obtaining offsets, developing mitigations, and demonstrating consistency with the requirements may

present difficulties. However, if offsets and mitigation measures can be obtained, modeling may be avoided.

If an early emissions reduction credit program has been established, the credits can be used as offsets or mitigation measures for the action's emissions if the reduction was implemented in the same nonattainment of maintenance area in which the action is to take place [40 CFR 93.165(c)(2)]. (See Section 4.1.2 for additional details on the early emissions reduction program, including details regarding timing and the use of credits in multiple years.)

Generally, offsets and mitigation measures must be for the pollutants being increased by the USAF action. However, for precursor emissions, the state may approve inter-precursor offsets or mitigation measures for different precursors of the same criteria pollutant if such trades are allowed by the state's NSR regulation, are technically justified, and have a demonstrated environmental benefit [40 CFR 93.164].

Modeling. Modeling is likely to be the most difficult and complex means of demonstrating conformity and cannot be used for O₃ or NO₂. 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. 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, modeling requirements, and other input data that may be required during the determination process.

Perform the Conformity Determination. Once the conformity determination criteria have been selected, the analysis can be performed. The conformity regulations include procedures and requirements for conducting a conformity determination. These requirements are contained in 40 CFR 93.159 and 163 and cover the following:

- Planning assumptions [40 CFR 93.159(a)],
- Emissions estimates [40 CFR 93.159(b)],
- Timing of offsets and mitigation measures [40 CFR 93.163],
- Air quality modeling [40 CFR 93.159(c)], and
- Years for which analyses are required [40 CFR 93.159(d)].

⁹ The responsible agency is the agency primarily responsible for the SIP.

(As shown in Figure 2.2, mitigation measures are developed if an initial analysis fails to demonstrate conformity, and the measures are part of a possibly iterative process to reduce emissions to the level required to demonstrate conformity.) 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:

- EPA's AP-42 (EPA 2010b) for nonmotor vehicle sources, unless more accurate emissions information, such as stack test data, are available;
- TANKS, which implements AP-42 procedures for storage tanks;
- MOVES2010 for on-road vehicles; and
- NONROAD for nonroad vehicles.

Section 6 provides links to Web sites that should provide the latest EPA versions of these and other resources, including emissions inventory guidance for stationary and mobile sources from the HQ Air Force Center for Engineering and the Environment Technical Support Division, Natural Infrastructure and Quality (AFCEE/TDNQ). Consultation with the appropriate regulatory agencies that may have their own preferred methods for estimating emissions is suggested. For example, EMFAC2007 is the model of choice for mobile source emissions in California.

Timing of Offsets and Mitigation Measures. Emission reductions for offsets and mitigation measures must generally occur in the same calendar year as the emission increases caused by the action and must equal the emission increases. However, in some circumstances, the state may approve mitigation measures or offsets which lower emissions by less than the calendar year increases but that provide long-term emissions reductions. These reductions may be approved in other years provided that:

- The reductions are greater than the emissions increases by ratios that depend on the severity of the nonattainment, as specified in 40 CFR 93.163(b)(1).
- The mitigation or offset compensation period should not exceed twice the period of the under-mitigated emissions. For example, if a three-year construction project in a serious nonattainment area increases emissions by 150 tons per year, the state can approve mitigation measures and offsets that reduce emissions by less than 150 tons per year if the total reduction over a

six-year period is equal to or more than 540 tons per year [(150 tons per year) \times (3 years) \times 1.2 (serious nonattainment offset ratio)].

• There will be no new standard violations or increases in frequency or severity of violations, and attainment will not be delayed.

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/ttn/scram/guidance/guide/appw_05.pdf.

Analysis Years. The analysis must cover the following years:

- The attainment year identified in the SIP or, if the SIP does not specify a year, the latest attainment year possible under the CAA;
- The last year with projected emissions in the maintenance plan;
- The year during which the total annual 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 of 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.

If the action produces emissions beyond the time period covered by the SIP, there are two options. The USAF could demonstrate conformity for the out years by demonstrating conformity with the last emissions budget in the SIP. If this demonstration is not possible, the USAF could request the state to include the action's emissions in the SIP emissions budget [40 CFR 93.162].

Evaluate Mitigation Measures. Mitigation measures are any measures that would lower the total emissions sufficiently to achieve a positive conformity determination. ¹⁰ 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. As discussed above, if offsets are used, the total direct and indirect emissions from the action must be fully offset within the area or an area

_

¹⁰ 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.

of equal or higher classification and must meet timing and ratio requirements if the offsets do not occur in the same calendar year as the emissions increases resulting from the action, so that there is no net increase in emissions of the pollutants of interest; in addition, 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 these entities 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.

If an early emissions reduction credit program has been established, the credits can be used as offsets or mitigation measures for the action's emissions if the reduction was implemented in the same nonattainment of maintenance area in which the action is to occur [40 CFR 93.165(c)(2)]. (See Section 4.1.2 for additional details on the early emissions reduction program, including timing and the use of credits in multiple years.)

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 conditional upon whether the other entity meets requirements of the mitigation measures [40 CFR 93.160(d)].

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 perform 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

Command A7 Asset Managers to Headquarters HQ USAF/A7CAN for review and comment and for processing with SAF/IEE. These comments can then be incorporated into the draft.

Restricted or confidential business information may be excluded from the draft, including the draft made available for public comment [93.155(c) and 93.156(e)].

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 federally recognized Indian tribal government in the nonattainment or maintenance area, any affected federal land managers, the agency designated under Section 174 of the CAA, and the MPO [40 CFR 93.155(a)]. Draft conformity determinations must be forwarded to HQ USAF/A7CAN, SAF/IEE, and the MAJCOM. Special provisions apply to actions with multiregional or national impacts; see 40 CFR 93.155(a).

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)]. Check with the appropriate regulators prior to publication, as they may require publication in specific newspapers. (Special provisions apply to actions with multiregional or national impacts.) 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)].

As a best management practice, it is suggested, but not required, that information related to conformity, such as public notices and documents, can also be made available on the local installation's public Web site.

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.

Restricted or confidential business information may be excluded from the draft, including the draft made available to the public [93.155(c) and 93.156(e)].

Provide for Final Public and Agency Notification. The USAF must notify the EPA Regional Office(s), state and local air agencies, any federally recognized Indian tribal

FINAL

government in the nonattainment or maintenance area, 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.

3.0 INTERACTIONS WITH OTHER REGULATORY REQUIREMENTS

3.1 NATIONAL ENVIRONMENTAL POLICY ACT

General conformity considers only air quality impacts. EIAP/NEPA considers impacts on 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 EIAP/NEPA and GC under the CAA 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.

It is up to each agency to determine the best ways to integrate the conformity and NEPA processes. However, the conformity evaluation can be completed concurrently with the NEPA analysis, and linkage between the two is allowed.

USAF regulations for EIAP (USAF 2000) specify, in part, that all EIAP documents must address applicable conformity requirements, noting that conformity applicability analyses and determinations are developed in parallel with EIAP documents but are separate and distinct requirements and should be documented separately. To increase the utility of a conformity determination in performing the EIAP, the conformity determination should be completed prior to the completion of the EIAP so as to allow incorporation of the information from the conformity determination into the EIAP.

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 (i.e., an EA or EIS) must be prepared (Section 3.1.2). Section 3.1.3 describes documentation of conformity in final EIAP/NEPA documents. Finally, a discussion of opportunities for integrating the EIAP/NEPA and conformity reviews (Section 3.1.4) is provided.

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, separate documentation of the emissions calculations would be required. If ACAM (see text box in Section 2.2.2 and Conformity Evaluation Tools in Section 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 ultimately intends to approve, permit, or fund (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; and
- Ambient monitoring data for pollutants of concern.

Comparisons between annual emissions and de minimis levels should be presented for each alternative for which they were made.

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 8, 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 may be needed for a complete EIAP/NEPA analysis.

Environmental Consequences. As noted previously, it is necessary to document a finding that conformity is not applicable and that a conformity determination is not needed. Although this documentation can be independent of EIAP/NEPA documentation, 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 for which an applicability analysis was conducted. Results of any available conformity determinations should also be presented. As already noted, the conformity evaluation may be narrower in scope than the EIAP/NEPA analysis and thus, presentation of the results of the conformity evaluation may be in addition to the presentation of the results of the EIAP/NEPA analysis.

Conformity Review Results. For each alternative for which a conformity review was conducted, the results of the conformity review should be provided. Even 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. If available, the draft conformity determination should be included as an appendix to the draft EA or EIS, and 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. Failure to release the draft conformity determination at the same time will result in an extension of the time required to complete the EIAP process and the conformity determination. Where the draft conformity determination is released after the draft EIAP document is released, the draft EIAP document cannot be finalized until the conformity determination is first made by appropriate authority. In the past, when the conformity determination was deferred, the EIAP finalization has been delayed substantially, in some cases for more than a year.

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 for 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. Title V requires permitted sources to certify compliance with all applicable federal requirements,

including general conformity, on an annual basis. General conformity is a review conducted prior to construction or implementation of an action taking place in a nonattainment or maintenance area and can include review of minor sources and such sources 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 regulatory agency be consulted to determine its 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

As required of all facilities under applicable federal, state, and local regulations, facilities subject to conformity should develop and maintain an air emissions inventory that includes both stationary and mobile sources in accordance with AFI 32-7040, *Air Quality Compliance*.

FINAL

This page is intentionally blank.

4.0 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 a substantial amount of time, and a series of changes may be needed to reduce 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 regulatory agencies may be required.

4.1.2 Emissions Budgets

The simplest demonstrations of conformity are those where the proposed federal action is already included in the SIP or the associated emissions are already in a SIP emissions budget or a facility-wide budget. The resultant efficiencies often exceed the time and resources spent to work with regulators to ensure that projected USAF projects are included in the applicable SIPs, as either specific line items or in the appropriate budgets. Any inclusions should be documented, if possible, to ensure easy of identification when the action is undertaken. In addition, base personnel should become familiar with general budgets for growth of particular activities, such as a budget for construction-generated particulate emissions in the SIP, as these general budgets might, with state approval, be used to demonstrate conformity.

4.1.3 Early Emission Reduction Credits

40 CFR 93.165 establishes a program for early emissions reduction credits. With state approval, USAF facilities can establish a facility-specific early emissions reduction credit

TABLE 4.1 Time Requirements for Major Tasks in Conformity Review

Action (a)	Approximate Time Range (b)
Applicability analysis, including emissions calculations, assuming that a complete project description is available.	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, and obtain needed commitments.	2 weeks – 6 months
Coordinate with MAJCOM, HQ USAF/A7CAN, and SAF/GCN, if necessary.	1-2 weeks
Prepare draft conformity document based on HQ USAF recommendations and changes.	1-3 weeks
Prepare and coordinate public participation (newspaper notice); distribute draft document to local libraries, regulatory agencies, and interested parties; follow SAF/IEE review process.	5 – 10 days
Allow for the 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.

(EERC) program. Once established, the facility can generate EERCs if they are quantifiable, consistent with the SIP and reasonable further progress milestones, subject to enforcement, permanent, and documented. To be creditable, the reductions cannot be required by or credited to any other SIP provisions.

⁽b) Some of these tasks can be accomplished simultaneously.

Credits can be used in the same year in which they are generated to reduce the emissions from a USAF facility for conformity evaluation. If the technique used to generate the credit occurs at the same facility as the action *and* could have occurred in conjunction with the action, the credit can be used to reduce the total emissions during applicability analysis and as an offset or mitigation measure to demonstrate conformity. If the technique does not occur at the same facility *or* could not have occurred in conjunction with the action, the credit cannot be used to reduce total emissions during applicability analysis but can be used as an offset or mitigating measure. Once credits are used, they cannot be used for another conformity evaluation. Unused credits can be used in other evaluations. For example, assuming they have a lifetime greater than one year, EERCs may be used to offset construction emissions in one year and to mitigate operational emissions increases in subsequent years.

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 must 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 would be used in making future 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.

HQ USAF/A7CAN 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 or approval or conducting a consultation. For example, the action may require Endangered Species Act consultations or 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 on the basis of 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 an analysis for the entire action, and the other agency can either adopt that analysis or develop its own analysis but must 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 an analysis for the entire action, and the other agency can either adopt that analysis or develop its own analysis but must 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 HQ USAF/A7CAN to SAF/IEE and SAF/GCN.

4.5 ROLE OF THE COMMUNITY

Except for the requirements for public notification and consideration and response to public comments, public participation is not required during the conformity evaluation. However, 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 help ensure that the partnering relationship is fostered and established.

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 Statement of Work (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.

FINAL

This page is intentionally blank.

5.0 REFERENCES

EPA (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], accessed August 2010.

EPA 2010a, *National Ambient Air Quality Standards (NAAQS)*, Office of Air and Radiation, January 7. Available at [http://epa.gov/air/criteria.html#5], accessed August 2010.

EPA, 2010b Compilation of Air Pollutant Emission Factors AP-42, Vol. 1: Stationary Point and Area Sources, Supplements A–F, Updates 2001–2009, 5th ed., Office of Air Quality Planning and Standards, Research Triangle Park, N.C., Apr. Available at [http://www.epa.gov/ttn/chief/ap42/index.html], accessed August 2010.

Paisie, J., 1995, *Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas*, Oct. 6. Available at [http://www.fhwa.dot.gov/environment/conformity/appendixj.pdf], accessed July 24, 2010.

Shaver, S., 1994, *Limited Maintenance Plan Option for Nonclassifiable Ozone Nonattainment Areas*, Nov. 16. Available at [http://www.epa.gov/ozonedesignations/1997standards/redesig/documents/11-16-94LimitedMain.pdf], accessed July 24, 2010.

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

USAF (U.S. Air Force), 2000, *Environmental Impact Analysis Process: (EIAP) – Air Quality*, 32 CFR 989.30, July 1. Available at [http://www.access.gpo.gov/nara/cfr/waisidx_05/32cfr989_05.html], accessed May 11, 2010.

Wegman, L., undated, *Memorandum: Limited Maintenance Plan Option for Moderate PM*₁₀ *Nonattainment Areas.* Available at [http://www.epa.gov/ttn/oarpg/t1/memoranda/lmp_final.pdf], accessed July 24, 2010.

Woo, W., 1996, Untitled letter to David B. Kessler, Federal Aviation Administration, Jan. 25, U.S. Environmental Organization, Region IX, Air and Toxics Division, San Francisco, C.A. Available at [http://www.epa.gov/ttn/oarpg/conform/kessler 12596.pdf], accessed May 12, 2010.

FINAL

This page is intentionally blank.

6.0 RESOURCES

NOTE: Resource information was current as of the end of January 2010. Over time, models and references may be revised or replaced, and hence the information presented below may be dated. Users should check the uniform resource locators (URLs) provided or use an Internet search engine to find the most current versions of models and references.

URLs often change as Web sites are revised. The URLs referenced here were checked during August 2010. If these reference links are broken, search for the new link by starting at the lowest level of the URL, which is 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.

6.1 FEDERAL LEGISLATION

Clean Air Act (42 USC 7401 – 7626). Available at: http://www.epa.gov/air/caa/, which also has a link to a full-text version (as of February 2004) of the Act as a single pdf document.

National Environmental Policy Act (NEPA) (42 USC 4321 – 4370e). Available at: http://epw.senate.gov/nepa69.pdf. Also see under Federal Regulations below.

6.2 FEDERAL REGULATIONS

Air Quality Control Regions. EPA, Designation of Areas for Air Quality Planning (40 CFR 81).

Air Quality Models. EPA, Guideline on Air Quality Models (40 CFR 51). Available at: http://www.epa.gov/ttn/scram/guidance/guide/appw 05.pdf.

All titles in the CFR are available at http://www.gpoaccess.gov/cfr/index.html. If the

Title, Part, and Section or Subpart are known (for example, [Title] 40 CFR [Part] 93 Subpart B), use the link Retrieve by CFR Citation. Otherwise, try Browse and/or search the CFR.

Finding Federal Regulations

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

EPA Semiannual Regulatory Agenda. Available at: http://www.epa.gov/fedreg/unified.htm.

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* (43 FR 55990: 1500–1508, Nov. 28, 1978). For legislation, see above under Federal Legislation.

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).

6.3 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.

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

6.4 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/genconformity.html.

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/genconformity.html.

NOTE: The two *Questions and Answers* resources cover different issues. However, they are based on the original 1993 general conformity regulations and thus do not reflect the 2010 revisions. Hence, they must be used with care.

Interim Policy on Wildland and Prescribed Fires, April 23, 1998. Available at: http://www.epa.gov/ttncaaa1/t1/memoranda/firefnl.pdf.

6.5 USAF GUIDANCE AND TOOLS

Access to some of the resources below requires a U.S. Department of Defense (DoD) computer and membership in the Air Force Air Quality Managers' Community of Practice (CoP). Membership is available from a DoD

Finding AFIs

Air Force personnel with a Common Access Card (CAC) can access AFIs at:

https://www.mv.af.mil/faf/FAF/fafHome.jsp.

Anyone can access AF publications at http://www.e-publishing.mil by selecting the Product Index tab and then choosing Departmental and 32 CE.

computer at: https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-EN-AF-38.

Federal Aviation Administration and USAF, Air Quality Procedures for Civilian Airports and Air Force Bases, April 1997. Available at:

http://www.faa.gov/regulations_policies/policy_guidance/envir_policy/airquality_handbook/med ia/Handbook.PDF.

General Conformity Rule, AFCEE Pro-Act Fact Sheet, March 2006. Available at: http://www.afcee.af.mil/shared/media/document/AFD-070924-137.pdf.

Federal Clean Air Act Toolbox, General Conformity. Available at: http://www.afcee.brooks.af.mil/products/air/federal/compdet/genconform.html.

6.6 EMISSIONS CALCULATION TOOLS

6.6.1 Documents and Databases

AP-42. See EPA (2010b) in Section 5.0, References.

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.

WebFIRE. EPA, 2010. *WebFIRE*. EPA Office of Air Quality Planning and Standards, Research Triangle Park, N.C. Jan. 25.

As of January 25, 2010, WebFIRE includes AP-42, vol. 1 (stationary source), 5th ed. factors and supplements and updates through September 2004, as well as factors from other sources. FIRE is available as a comma-separated value spreadsheet or for import into an Access database. Available at: http://cfpub.epa.gov/oarweb/index.cfm?action=fire.mail.

AFCEE Stationary Source Emissions Factor Guide. U.S. Air Force, 2010, *Air Emissions Factor Guide to Air Force Stationary Sources*, Air Force Center for Engineering and the Environment, Brooks City-Base, TX, Oct 2009. Available through the Air Force Air Quality Managers' CoP at:

https://afkm.wpafb.af.mil/DocView.asp?DocID=7808690 or

https://www.my.af.mil/afknprod/DocView.asp?DocID=7808690.

(Access requires membership in the CoP and use of a DoD computer.)

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 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 firefighter training, nondestructive testing, and aircraft engine testing. Emissions of criteria pollutants, hazardous air pollutants, and ozone-depleting substances are covered.

AFCEE Mobile Source Emission Factor Guide. U.S. Air Force, 2010, *Air Emissions Factor Guide to Air Force Mobile Sources*, Air Force Center for Engineering and the Environment, Brooks City-Base, TX, Oct 2009. Available through the Air Force Air Quality Managers' CoP at:

https://afkm.wpafb.af.mil/DocView.asp?DocID=8692790 or

https://www.my.af.mil/afknprod/DocView.asp?DocID=8692790.

(Access requires membership in the CoP and use of a DoD computer.)

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

Vehicle emissions factors are consistent with the AP-42 mobile source factors in MOBILE6 (April 2009). However, since the publication of the reference, EPA has released MOVES2010, which, as of January 2010, is 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 MOVES2010 model. 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.

6.6.2 Computer Programs

APIMS. The Air Program Information Management System (APIMS) Version 6.0 provides a wide range of air program management capabilities, including the capability to calculate emissions from all USAF sources, such as "what-if" scenarios. APIMS provides a standard calculation dataset but also allows users to add custom source categories, algorithms, and emissions factors to the system to meet unique requirements. APIMS is being used by many USAF installations to manage air quality compliance and to develop air emissions inventories. APIMS has been transitioned to the Defense Information Systems Agency (DISA) platform under the authority of HQ AFCEE.

For information on availability, the following methods are available:

(1) Air Quality Subject Matter Expert HQ AFCEE/TDNQ Air Force Knowledge Now – Air Quality Managers CoP https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-EN-AF-38

(Access requires membership in the CoP and use of a DoD computer.)

- (2) AFCEE's Air Resource Management Services and Products http://www.afcee.brooks.af.mil/products/air/
- (3) APIMS Helpdesk: (800) 274-4406
- (4) APIMS Web site: https://apims.af.mil/apims (CAC registration required), or
- (5) E-mail: <u>aprims@ngc.com</u>.

MOVES2010. MOVES2010 is the state-of-the-art upgrade to EPA's modeling tools for estimating emissions from highway vehicles. MOVES2010 replaces the previous model for estimating on-road mobile source emissions, MOBILE6.2. At the end of January 2010, EPA published a *Federal Register* notice of availability to approve MOVES2010 for official purposes. Upon publication of the Federal Register notice, MOVES2010 became EPA's approved motor vehicle emission factor model for estimating VOCs, NO_x, CO, direct particulate matter (PM₁₀ and PM_{2.5}), and other pollutants and precursors from cars, trucks, motorcycles, and buses by state and local agencies outside of California. EPA included a two-year grace period in the notice for using MOVES2010 for transportation conformity purposes.

The model, user guide, and additional information are available at: http://www.epa.gov/otaq/models/moves/index.htm.

NONROAD2008a. NONROAD is EPA's model for predicting emissions from small and large nonroad vehicles, equipment, and engines except commercial marine, locomotives, and aircraft. Fuel types included in the model are: gasoline, diesel, compressed natural gas, and liquefied petroleum gas. The model estimates exhaust and evaporative hydrocarbons (choice of five different types), CO, NO_x, PM₁₀ or PM_{2.5}, SO₂, and CO₂.

The model, user guide, and documentation are available at: http://www.epa.gov/oms/nonrdmdl.htm.

SPECIATE. SPECIATE is EPA's repository of total organic compound (TOC) and particulate matter speciated profiles for a variety of sources. It can be used to create speciated emissions inventories and to estimate hazardous and toxic air pollutant emissions from total TOC and PM primary emissions.

SPECIATE and documentation are available at: http://www.epa.gov/ttn/chief/software/speciate/index.html.

URBEMIS emissions for both highway and nonhighway sources 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.

Both the model and the user's guide are available at: http://www.urbemis.com/software/download.html.

TANKS. TANKS is a Windows-based EPA program that estimates VOC and hazardous air pollutant (HAP) emissions from fixed- and floating-roof storage tanks. It is based on AP-42 emission procedures.

TANKS, the user's manual, and additional information are available at: http://www.epa.gov/ttn/chief/software/tanks/index.html.

URBEMIS. The Urban Emissions Model (URBEMIS 2007, version 9.2.4) is a Windows program that estimates air emissions (including PM_{2.5} and CO₂) from various land uses, area sources, construction projects, and project operations. The model requires only minimal user input, although most defaults can be modified. 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.

6.7 CONFORMITY EVALUATION TOOLS

The USAF commonly uses two computerized tools to aid in emissions analysis: 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 output provides a rough estimate of conformity-related emissions, as well as 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 MOBILE6.2 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 up to Windows Vista or other 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 4.4.5 is available through the AFCEE Public Web page at: http://www.afcee.brooks.af.mil/products/air/acam/acam.asp. It may also be obtained by contacting:

(1) Air Quality Subject Matter Expert HQ AFCEE/TDNQ Air Force Knowledge Now – Air Quality Managers CoP https://afkm.wpafb.af.mil/airquality

(Access requires membership in the CoP and use of a DoD computer.)

(2) AFCEE's Air Resource Management Services and Products http://140.140.58.122/products/air/default.asp.

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 support equipment, such as trucks and automobiles; and has 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 based on the following:

- The latest aircraft engine emission factors from the International Civil Aviation Organization (ICAO) Engine Exhaust Emissions Data Bank,
- Vehicle emission factors from the EPA's MOBILE6 model,
- EPA-validated dispersion algorithms, and

• Emissions data for criteria pollutants and speciated organic gas emissions (45 HAPs and 349 nontoxic compounds).

EDMS can be useful in addressing requirements for environmental impact assessments and analyses associated with proposed airbase additions, modifications, mission changes, and aircraft beddowns, as well as 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. The dispersion model AERMOD (for AERMIC Model, American Meteorological Society EPA Regulatory Model Improvement Committee) is used to generate 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 emissions 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, 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.

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

To obtain emissions factors for any aircraft, contractors must order EDMS for \$55, which includes shipping and handling. EDMS is free of charge to DoD personnel. To order EDMS, please follow the instructions provided in the FAA's EDMS Web site:

http://www.faa.gov/about/office org/headquarters offices/aep/models/edms model/

For additional questions, contact:

edms help@cssiinc.com (via e-mail) or write to:

Philip Soucacos Systems Engineer CSSI, Inc. (202) 863-3683

7.0 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 (62 miles) of the proposed federal action.

Applicability analysis: See conformity applicability analysis.

Area: Nonattainment or maintenance area.

Area-wide air quality modeling analysis: An assessment that includes the entire nonattainment or maintenance area and that uses an air quality dispersion model or photochemical grid 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, unless otherwise specified.

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

Conformity analysis: The process of demonstrating conformity with the approved SIP, which may include air quality modeling.

Conformity applicability analysis: The process of determining whether a federal action must be supported by a conformity determination.

If emissions must be calculated, the analysis documents all of the direct and indirect emissions that are practicably controllable by the United States Air Force (USAF), both construction and operational, for the entire proposed federal action. The applicability analysis compares the emissions estimated for the proposed action to emissions under a "no action" alternative, calculates the net emissions changes for comparison to applicable de minimis thresholds, and thereby determines whether the action must be supported by a conformity determination.

Conformity determination: The evaluation made after an applicability analysis is completed to document that a proposed federal action conforms to the approved SIP.

Conformity evaluation: The entire process from the applicability analysis through the conformity determination.

Continuing program responsibility: The agency has responsibility for emissions caused by (1) actions it takes itself; or (2) actions of non-federal entities that the agency approves, funds, licenses, or permits — provided that the agency can impose conditions on any portion of the actions that could affect emissions.

Continuous program to implement: The agency has started the action and does not stop the action for more than 18 months unless the stoppage was in the original plan.

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 (1) are caused by or initiated by the federal action, (2) originate in a nonattainment or maintenance area, (3) occur at the same time and place in which the action occurs, and (4) are reasonably foreseeable.

Emergency: A situation where extremely quick action on the part of the USAF is needed and the timing of USAF activities makes it impractical to meet the general conformity requirements, such as during natural disasters (e.g., hurricanes or earthquakes), civil disturbances, terrorist acts, and military deployments.

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 inventory: A listing of information on the location, source type, and quantity of pollutants emitted and other emissions parameters.

Emissions offsets: In conformity determination criteria, emissions offsets are emissions reductions that are quantifiable, are consistent with the SIP attainment and reasonable further progress demonstrations, are a surplus to reductions required by and credited to other SIP provisions, are enforceable, and are 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 do the following: 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 and originate in the same nonattainment or maintenance area, (2) are reasonably foreseeable, (3) can be practically control by the agency, and (4) for which the agency has continuing program responsibility.

Local air quality modeling: An assessment of localized 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 been redesignated as in attainment and that has an approved plan, which can extend for up to 20 years, 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) and created as a result of the designation process in 23 USC 134(d).

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, PM_{2.5}, and SO₂.

Net emissions: see *Total of direct and indirect emissions*.

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

Precursors: (1) For ozone, NO_x and VOCs, (2) for PM_{10} , those pollutants described in the SIP as significant contributors to PM_{10} levels, and (3) for $PM_{2.5}$, SO_2 , and NO_x , unless both the state and EPA determine it is not, and VOCs and NH_3 if either state of EPA determines they are.

Pollutants of concern: Those criteria pollutants for which an area is designated nonattainment or maintenance and their precursors emitted in a designated nonattainment or maintenance area.

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

Restricted information: Information that is privileged or protected from disclosure by statute, Executive Order, or regulations, such as classified national security information, protected infrastructure information, or sensitive security information.

Start the action: See *Take or start the action*.

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.

Take or start the action: The date the agency signs or approves the permit, license, grant, or contract or otherwise begins the action that requires conformity evaluation.

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. Only pollutants of concern and their precursors in nonattainment and maintenance areas are evaluated. Emissions from sources that are exempt or presumed to conform are not included in the total.

Transportation conformity: Conformity analyses for federal action related to transportation plans, programs, and projects developed, funded, or approved under title 23 USC or the Federal Transit Act (42 USC 1601 *et seq.*) that must meet the procedures and criteria of 40 CFR 51, Subpart T rather than 40 CFR 51, Subpart B.

Tribal Implementation Plan (TIP): A plan to implement to NAAQS adopted by a federally recognized Indian tribal government.

APPENDIX A: EXAMPLES OF ACTIONS EXEMPT FROM GENERAL CONFORMITY

FINAL

This page is intentionally blank.

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 (49 USC 53) [40 CFR 93. 153(a)].
- 2. Actions with no or clearly de minimis emissions [40 CFR 93.153(c) (2)].
 - Judicial proceedings.
 - Courts-martial.
 - Civil and criminal enforcement activities.
 - Training of military police.
 - Administrative actions, such as personnel actions, organizational changes, and internal agency audits.
 - Internal environmental audits of base installations, and
 - Assessment of costs for Program Objective Memorandum submittals and payroll operations.
 - 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, roads, supporting structures, and grounds; and
 - Routine maintenance of aircraft.
 - Routine, recurring transportation of materiel and personnel.

- Aircraft and vehicle transport operations routinely occurring that are of a scope and duration similar to those currently occurring,
- Return of squadron deployed for a training exercise or deployment, 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 overhaul when 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 leasing of buildings on a base to a private company or companies that use the buildings 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 of excess housing and real property to the U.S. Navy.

- Air traffic control activities and adopting approach, departure, and en route procedures for aircraft operations 3,000 feet or more above ground level or above the mixing height specified in the SIP.
- 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 or minor new or modified stationary source subject to NSR or PSD.
 - Actions in response to emergencies or natural disasters, which are typically commenced within hours or days after the emergency, or actions taken as part of a continuing emergency response.
 - 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 SIP.
 - Alteration and additions of existing structures required by environmental legislation or regulations, such as "hush houses" for aircraft or emissions control devices.
 - 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.

FINAL

This page is intentionally blank.

APPENDIX B: SUGGESTED RECORD OF NONAPPLICABILITY (RONA)

FINAL

This page is intentionally blank.

APPENDIX B: SUGGESTED RECORD OF NONAPPLICABILITY (RONA)¹¹

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 Name:
Nonattainment Criteria Pollutants and Classification:
Maintenance Criteria Pollutants:
Pollutants of Interest 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,
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 greatest 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].

¹¹ The RONA shall be retained at the installation for a period of five years from the time of signature.

FINAL

Emission estimates and supp	porting documentation are
<u>Documentation</u>]	in the EIAP/NEPA documentation [Reference to EIAP/NEPA]
() Other:	SIGNED
	[INSTALLATION ENVIRONMENTAL COORDINATOR]