

APPENDIX F

CLEAN AIR ACT GENERAL CONFORMITY GUIDANCE

1 Purpose and Scope

This guidance establishes the procedures and responsibilities for conformity analyses and determinations. This guidance will assist the Navy in implementing the Clean Air Act General Conformity Requirements for proposed actions.

This guidance is applicable to air emissions from stationary, mobile, and area sources associated with all shore facilities within the geographical borders of the United States, Commonwealth of Puerto Rico, U.S. Virgin Islands, Guam, American Samoa, and Commonwealth of the Northern Marianas Islands. Special limitations apply to actions involving aircraft and vessels.

2 Legislation

Clean Air Act as Amended. In order to ensure that Federal activities do not hamper local efforts to control air pollution, Section 176(c) of the Clean Air Act (CAA), 42 U.S.C. 7506(c), prohibits Federal agencies, departments, or instrumentalities from engaging in, supporting, providing financial assistance for, licensing, permitting or approving any action which does not conform to an approved State or Federal implementation plan.

Conformity to an implementation plan means: Conformity to a plan's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieving expeditious attainment of such standards; and that such activities will not (1) cause or contribute to any new violation of the NAAQS; (2) increase the frequency or severity of an existing violation; or (3) delay the timely attainment of a standard, interim emission reduction, or milestone. Section 176(c) was amended in 1995 to clarify that the conformity requirements apply only to designated non-attainment and maintenance areas.

The CAA established two types of conformity programs: "transportation conformity" and "general conformity." Conformity determinations for Federal actions related to transportation plans, programs and projects developed, funded, or approved under title 23 U.S.C. or the Federal Transit Act, 49 U.S.C. 1601 et seq. are governed by the Transportation Conformity Rule found at 40 CFR Part 51, Subpart T rather than the General Conformity Rule. It is not expected that the Navy will propose actions subject to the Transportation Conformity Rule; therefore, this document provides guidance only on the General Conformity Rule.

3 Rule Requirements

The General Conformity Rule. The U.S. Environmental Protection Agency's (EPA) rule implementing the conformity requirements, "Determining Conformity of General Federal Actions to State or Federal Implementation Plans," was published on 30 November 1993 at 58 FR 63214 and codified at 40 CFR Parts 51 and 93. Part 51, Subpart W, contains the General Conformity Rule provisions that must be incorporated into State Implementation Plans (SIPs), including the requirement that States revise the SIPs to include the conformity requirements. While the State provisions must be at least as stringent as the

Federal guidelines, the States are prohibited from imposing more stringent conformity requirements unless such requirements apply equally to non-Federal activities. Once a SIP has been revised and approved by EPA, the conformity requirements become Federally enforceable and Federal agencies are subject to the conformity requirements as they appear in the SIP. In cases where a Federal Implementation Plan (FIP) is in effect, Federal actions must conform to the requirements of the FIP.

Subpart B of Part 93 is the General Conformity Rule that applies directly to Federal activities during the interim period before the State revises, and EPA approves, the SIP. The language of Parts 51 and 93 is essentially identical, the only difference being the references to SIP revisions. This guidance will refer to the regulations in Part 93.

3.1 Prohibition (40 CFR 93.150)

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 applicable implementation plan.

A determination must be made that a Federal action conforms to an applicable implementation plan in accordance with the General Conformity Rule before the action is taken.

A determination of conformity does not exempt the action from any other requirements of the applicable implementation plan, the National Environmental Policy Act (NEPA) or the CAA.

A determination of conformity in accordance with the General Conformity Rule must be made for all actions except: (1) actions covered by the Transportation Conformity Rule; (2) actions where the total emissions are below specified de minimis levels; and (3) certain other actions which are exempt or presumed to conform.

3.2 Grandfathering (40 CFR 93.150(c))

Grand fathering provisions were incorporated into the final EPA conformity rule; however, the grandfathering deadlines have all passed. Regional Environmental Coordinators (RECs) need to review SIP conformity revisions for SIP grandfather provisions, and obtain reasonable transition procedures where appropriate.

The General Conformity Rule requirements do not apply to Federal actions where:

The NEPA documentation was completed prior to 31 January 1994. This includes a final Environmental Assessment (EA), Environmental Impact Statement (EIS), or Finding of No Significant Impact (FONSI); or where

a. Prior to 31 January 1994, an EA was started or a contract was awarded to develop the specific environmental analysis;

b. Sufficient environmental analysis was completed by 15 March 1994 so that the Federal agency determined that the action was in conformity with the applicable implementation plan; and

c. A written conformity determination was made prior to 15 March 1994.

3.3 State Implementation Plan (SIP) Revisions (40 CFR 93.151)

Each State must revise its SIP to incorporate the criteria and procedures contained in the General Conformity Rule. The CAA required these revisions by 30 November 1994, or within 12 months of an area's designation to non-attainment, whichever is later. However, to date many States have not obtained approval for their conformity SIP revisions. A summary of the status of conformity SIP revisions may be found on the World Wide Web at <https://www.denix.osd.mil/denix/DOD/Working/CAASSC/Conform/confstat.html>.

Until EPA approves the SIP revision, Federal agencies must comply with the Federal General Conformity Rule set out in 40 CFR Part 93, and any previously existing generally applicable State conformity requirements. When the SIP is approved, the new SIP conformity criteria and procedures will apply. If only a portion of the SIP revision is approved, Federal agencies must comply with the approved portion of the SIP conformity revision, as well as the Federal General Conformity Rule for any portions not approved.

The CAA requires EPA to compile the requirements of the Federally-enforceable SIP for each State every 3 years. In addition to containing the applicable conformity requirements, the SIP contains other information needed for the conformity analysis, such as emissions inventories. The SIP compilations are available for inspection at the appropriate EPA Regional Office. Contact information for the EPA Regions may be found in TAB B.

In addition, any previously applicable SIP requirements relating to conformity remain enforceable until the State revises its SIP to specifically remove the requirements and EPA approves the revision.

State Rules. State conformity rules cannot be less stringent than the General Conformity Rule. State rules also cannot be more stringent than the General Conformity Rule with one exception. If the State revises the SIP to apply the entire General Conformity Rule to non-governmental entities in the same manner as to governmental entities, then the State may impose more stringent conformity requirements on both groups. States may add to the General Conformity Rule in order to clarify the rule language or to develop new language for areas not addressed by the Federal rule. However, any such variations from the Federal rule should be carefully evaluated to assure that they do not result in the State rule imposing more stringent requirements on Federal actions. Navy Regional Environmental Coordinators (RECs) should monitor conformity SIP revisions to identify and raise issues of concern. Continuing problem areas should be referred up the chain of command.

Examples of areas States may address in their SIP revisions that are acceptable include: (1) details on how emissions budgets will be determined, what projects will be included in the emissions budget, how emissions will be tracked and how emissions will be allocated in the budgets; (2) establishing criteria for applying area wide and localized modeling; (3) describing the process for implementing and enforcing mitigation measures; (4) providing an interagency consultation process where multiple Federal agencies have jurisdiction; and (5) with respect to offsets, describing equally enforceable measures, other than SIP revisions, that satisfy the enforceability criteria.

Examples of areas States may address in their SIP revisions that are not acceptable (unless applied equally to non-Federal entities) include: (1) lower de minimis thresholds; (2) requiring conformity determinations based on State, as opposed to Federal, air quality standards; and (3) requiring conformity determinations for pollutants other than criteria pollutants and their precursors.

3.4 Responsibility for Conformity Analysis (40 CFR 93.154)

Each Federal agency taking an action subject to the General Conformity Rule must make its own conformity determination. In making its conformity determination, a Federal agency must consider comments from any interested parties. In cases where multiple Federal agencies have jurisdiction over the action or parts of the action, an agency may adopt the analysis of another Federal agency or develop its own analysis in making the conformity determination. Other Federal agencies may have jurisdiction over parts of Navy Action where the other agency is granting the Navy a permit, approval, or conducting a required consultation. Examples of such actions are Endangered Species Act consultations, Federal Aviation Administration actions, and Army Corps of Engineers Permits.

Adopting a Conformity Analysis. If the Navy chooses to adopt the conformity analysis of another Federal agency, the Navy must still prepare an independent, stand-alone, signed conformity determination describing any limitations, conditions or mitigation specific to the Navy portion of the action. The determination must state that the Navy adopts as its analysis the analysis contained in the conformity determination of the other agency, and the other agency's conformity determination must be attached as an appendix.

In those situations where the Navy adopts the conformity analysis of another Federal agency, the Navy continues to be responsible for assuring that the reporting and public participation requirements set out below are satisfied for the "adopted" conformity determination. The Navy may satisfy those requirements by participating in the reporting and public participation procedures of the originating agency. All such communication with regulatory agencies and the public, however, must clearly state that the determination is satisfying the conformity obligation of both the originating agency and Navy and offer the opportunity to submit comments to Navy on the conformity analysis and determination. In those cases where Navy does not participate in the originating agency's procedures, the Navy must separately satisfy the reporting and public participation requirements.

3.5 Reporting Requirements (40 CFR 93.155)

Draft Conformity Determination. A 30-day notice describing the proposed action and the Draft Conformity Determination must be provided to the following offices: the EPA Regional Office, State and local air quality agencies, the agency designated under Section 174 of the Act, the Metropolitan Planning Organization (MPO), and, if applicable, Federal Land Managers whose lands may be impacted by the action.

The Draft Conformity Determination must constitute a complete analysis, including satisfaction of all of the requirements necessary for a Final Conformity Determination.

Final Conformity Determination. Notice of the availability of the Final Conformity Determination must be provided to the same offices within 30 days of the determination.

3.6 Public Participation (40 CFR 93.156)

Draft Conformity Determination. The Navy must make the Draft Conformity Determination and its supporting materials (i.e., analytical methods and conclusions relied upon for the applicability analysis and Draft Conformity Determination) available for review upon request by any person.

A notice of the availability of the Draft Conformity Determination must be placed by prominent advertisement in a daily newspaper of general circulation in the area affected by the action. If an Environmental Impact Statement (EIS) is being prepared, the notice can be included as part of the notice of availability of the draft EIS. However, if only one notice is published announcing the availability of both documents, then the single notice must clearly state that the notice is for both NEPA and General Conformity purposes. Failure to clearly state that the Conformity Determination is available for public review may require that a second comment period be initiated in order to meet this CAA requirement, impacting project schedules and timelines. A 30-day period must be provided for written public comment before taking any action on the Draft Conformity Determination.

Response to Comments. All responses to the comments received must be documented, and the comments and responses made available upon request by any person within 30 days of the Final Conformity Determination.

Final Conformity Determination. Notice of the Final Conformity Determination must be provided by placing a prominent advertisement in a daily newspaper of general circulation in the area affected by the action within 30 days of the final determination. The Final Conformity Determination will be incorporated into the Navy's Record of Decision. A final unsigned version of the conformity determination should be included in the Final EIS.

If a conformity determination is being prepared for a project that requires an Environmental Assessment (EA) that would not otherwise be distributed in draft form for public review and comment, a draft final version of the EA, to be identified as a "review EA," shall be distributed with the Draft Conformity Determination for purposes of satisfying the public participation requirement. Concurrently, a public notice on the availability of a Draft Conformity Determination must be published in the local newspaper.

3.7 Frequency Requirements (40 CFR 93.157)

The conformity status of an action lapses 5 years from the date of the Final Conformity Determination, unless the action has been completed or a continuous program has been commenced to implement the action within a reasonable time.

Ongoing activities at a given site showing continuous progress are not new actions, and do not require re-determination so long as such activities are within the scope of the Final Conformity Determination.

If an action is changed after the Final Conformity Determination is made, and the change results in an increase in the total of direct and indirect emissions that equals or exceeds the de minimis levels, a new conformity determination is required.

3.8 Demonstrating Conformity (40 CFR 93.158)

An action shall be determined to conform if the total of direct and indirect emissions is in compliance or consistent with all relevant SIP requirements and milestones (i.e., reasonable further progress schedules, assumptions specified in the attainment/maintenance demonstration, prohibitions, numerical emission

limits or work practice requirements) and meets any one or a combination of the requirements listed in detail below:

- a. Project emissions are identified in the SIP budget:

For any Criteria Pollutant. The total of direct and indirect emissions from the action is specifically identified and accounted for in the SIP attainment or maintenance demonstration.

- b. Project emissions are fully offset:

For Ozone or Nitrogen Dioxide. The total of direct and indirect emissions from the action is fully offset within the same non-attainment or maintenance area through a revision to the applicable SIP or a similarly enforceable measure that effects emission reductions so that there is no net increase in emissions of that pollutant.

To be used in a conformity determination, offsets must be:

- (1) Quantifiable;
- (2) Consistent with applicable SIP attainment and reasonable further progress demonstrations;
- (3) Surplus to reductions required by, and credited to, other applicable SIP provisions;
- (4) Enforceable at both State and Federal levels; and
- (5) Permanent within the timeframe specified by the program.

- c. Modeling results demonstrate standards will not be exceeded:

(1) For any Criteria Pollutant Except Ozone and Nitrogen Dioxide. The total of direct and indirect emissions:

(a) Is shown to comply (i.e., to not cause or contribute to any new violation of any standard in any area and not to increase the frequency or severity of any existing violation of any standard in any area) based on area wide and local air quality modeling analysis; or

(b) Meets the requirements of paragraphs 2., 4. or 5. of this section and, for local air quality modeling analysis, the emissions are shown to comply.

- (2) For Carbon Monoxide or Particulate Matter.

(a) Where the State determines that the area wide air quality modeling analysis is not needed, the total of direct and indirect emissions is shown to comply based on local air quality modeling analysis; or

(b) Where the State determines that an area wide air quality modeling analysis is appropriate and local modeling is not needed, the total direct and indirect emissions are shown to comply, based on the area wide modeling, or the emissions meet the requirements of paragraphs b., d. or e. of this section;

- d. Project emissions are accommodated within SIP Budget:

For Ozone or Nitrogen Dioxide. The total of direct and indirect emissions from the action meets the following requirements:

Where EPA has approved a revision to an area's attainment/maintenance demonstration after 1990 and

- (1) The State agency determines that emissions will not exceed the SIP emissions budgets; or
- (2) The State agency makes a written commitment to EPA to revise the SIP within 18 months, to accommodate the increased emissions, and that such revisions occur prior to the time emissions from the Federal action occur.

e. Project emissions are already accounted for in Conforming Transportation Plan:

For Ozone or Nitrogen Dioxide. The total of direct and indirect emissions from the action meets the following requirement:

The MPO determines that the action is part of a current transportation plan that has been found to conform under the Transportation Conformity Rule.

All required analyses must be completed and any necessary mitigation measures must be identified before a conformity determination is made. A chart summarizing the criteria for determining conformity is provided in TAB C.

Information on the SIP contents may be obtained by contacting the appropriate EPA Regional Offices, as identified in TAB B.

3.9 Requirements for Determining Emissions for Conformity Purposes (40 CFR 93.159)

a. Planning Assumptions

Conformity analyses must be based on the latest planning assumptions derived from population, employment, travel and congestion estimates approved by the MPO or other authorized agency. Any revisions to these estimates that will be used in the conformity determination must be approved by the MPO or other authorized agency.

b. Modeling

Air quality modeling analyses must be based on the applicable air quality models, databases, and other requirements specified by EPA in the most recent version of Guideline on Air Quality Models (EPA publication number 450/2-78-027R). If the guideline's techniques are inappropriate, written approval for any modification or substitution must be obtained from the EPA Regional Administrator on a case-by-case or specific program basis. All techniques used must be explained and documented.

c. Scenario Years

Analyses must be based on the total of direct and indirect emissions and must reflect the scenarios that are expected to occur under each of the following circumstances:

- (1) The mandated attainment year in the CAA, or the farthest year in which emissions are specified in the maintenance plan, if applicable;
- (2) The year during which the total of direct and indirect emissions from the action is expected to be the greatest on an annual basis; and
- (3) Any year for which the applicable SIP specifies an emissions budget.

3.10 Mitigation of Air Quality Impacts (40 CFR 93.160)

If conformity to the SIP cannot be satisfied in any other way, mitigation measures may be necessary.

Mitigation Measures. Any measures that are intended to mitigate air quality impacts must be identified and the process for implementation and enforcement of such measures must be described, including an implementation schedule containing explicit timelines for implementation.

Mitigation Commitments. Prior to making a conformity determination, Navy must obtain written commitments from the appropriate persons or agencies to implement any mitigation measures that are identified as conditions for making the conformity determination. Persons or agencies voluntarily committing to mitigation measures to facilitate positive conformity determinations must comply with the obligations of such commitments.

Permitting, Licensing, Approvals. In instances where a Federal agency is licensing, permitting or otherwise approving the action of another governmental or private entity, approval by the Federal agency must be conditioned on the other entity meeting the mitigation measures set forth in the conformity determination.

Changed Circumstances. When necessary because of changed circumstances, mitigation measures may be modified so long as the new mitigation measures continue to support the conformity determination. Any proposed change in the mitigation measures is subject to the reporting and public participation requirements discussed above.

SIP Revisions. SIP revisions incorporating the conformity rule shall provide that written commitments to mitigation measures must be obtained prior to a positive conformity determination and that such commitment must be fulfilled.

Enforcement of Mitigation Measures. After EPA approves a State SIP revision adopting the conformity rules, any mitigation measures identified in support of a conformity determination will be both State and Federally enforceable. Enforceability through the applicable SIP will apply to all persons who agree to mitigate direct and indirect emissions associated with a Federal action for a conformity determination.

4 Policy

4.1 Documentation

A Conformity Review must be completed for every Navy action that generates emissions. The action proponent is responsible for the documentation. The Conformity Review can be satisfied by (1) a determination that the action is not subject to the General Conformity Rule, (2) a Record of Non-Applicability, or (3) a Conformity Determination. All Records of Non-Applicability and Conformity Determinations and their supporting analytical materials must be separate, stand-alone documents signed by the appropriate delegated official. These documents, however, should be companion documents to any NEPA documentation being prepared (see discussion of NEPA integration below).

a. **Action Not Subject to the Rule.** The action proponent may make a determination that the proposed action is not subject to the General Conformity Rule. Actions not subject to the rule are actions that occur in attainment areas, and that do not generate emissions in non-attainment areas; or actions where the criteria pollutant (or its precursors) that is emitted is one for which the area is in attainment. See STEPS 2 and 3 in Section V, Procedures, under A. Determining Applicability. If NEPA documentation is prepared for the action, the determination shall be described in that documentation; otherwise, no documentation is required.

b. **Record of Non-Applicability.** A Record of Non-Applicability (RONA) must be prepared if the proposed action is subject to the Conformity Rule, but is exempt because it fits within one of the exemption categories. These are listed in TAB D. A RONA is a stand-alone document setting out the facts and circumstances establishing that the action is exempt. A sample format for the RONA is provided in TAB D. If the action is exempt because the calculated total emissions are below the de minimis levels, the assumptions and calculations used to determine the level of de minimis emissions must be explained in the RONA. The commanding officer, or designee, of the installation sponsoring the action shall sign the RONA. Consultation with the Chief of Naval Operations, CNO (N45) and command counsel, is recommended. RONAs are not separately subject to the Reporting or Public Participation requirements of the General Conformity Rule; however, they should be incorporated into any NEPA documentation that is being prepared. (See Integration with NEPA Section). Because the General Conformity Rule requires the Federal agency to make the determination of conformity with the SIP, a RONA is required to document that a responsible Navy official has considered and complied with the rule. Since the conformity rule can act as a prohibition on moving forward with a Federal project, it presents a ripe area for challenge to controversial or unpopular actions. Complete and readily accessible documentation of compliance with the General Conformity Rule is critical to successfully defending against legal challenges.

c. **Conformity Determination.** A Conformity Determination is required when the non-exempt emissions equal or exceed the de minimis levels or are regionally significant. A Conformity Determination is a stand-alone document containing the entire analysis and supporting materials necessary to demonstrate compliance with the conformity determination criteria and including any required mitigation measures.

If offsets (including emission reduction credits) are needed from another installation to make the conformity determination, the following procedures apply. Trading of offsets from one Navy installation to another must be approved at the Regional Environmental Coordinator level after coordination with all other Navy activities in the area. Trading of offsets from a Navy installation to or from a different

Military Department installation must be approved at the ASN (I&E) level. Before the conformity determination can be made, the sponsoring activity shall have obtained written confirmation that offsets necessary to a finding of conformity are available.

Record Retention. All of the records identified above shall be maintained in the project file for at least 2 years after the action is completed.

Classified Actions. Actions considered classified for national security reasons are not exempt from the requirement for a Conformity Review. Conformity documentation, both draft and final, must be prepared, safeguarded, and disseminated per the requirements applicable to classified information. When feasible, the documents are to be organized in such a manner that classified portions are included as appendices so that the unclassified portions can be made available to the public. Review of classified documentation will be coordinated with personnel with appropriate security clearances at the U.S. EPA and the State to fulfill the reporting requirements of the General Conformity Rule.

Classified conformity documentation serves the same purpose as unclassified documentation, demonstrating that the statutory and regulatory requirements have been satisfied. Even though the classified documentation does not undergo public review and comment, it will still be part of the information package that is placed before the decision maker for the proposed action. The content of the classified conformity documentation will therefore meet the same content requirements applicable to publicly available documentation.

4.2 Coordination and Review

All Draft and Final Conformity Determinations shall be coordinated with and reviewed by CNO (N45), command counsel and OAGC (I&E). If a Conformity Determination is associated with an action for which a Finding of No Significant Impact (FONSI) is prepared, the entity delegated FONSI signature authority for the proposed action shall sign the determination. If the determination is associated with an action for which an EIS is prepared, the Deputy Assistant Secretary of the Navy, delegated authority for signing the ROD, shall sign the Conformity Determination.

4.3 Integration with NEPA Document Preparation

Conformity requirements must be considered early in the planning process for all actions and projects. Because a negative conformity determination could prohibit a proposed action, air emissions need to be identified early, as they may require adjustments in the design, intensity, location or timing of an action.

Conformity review and documentation should be completed at the same time as the NEPA analysis and documentation and be fully integrated into the NEPA analysis and documentation. NEPA documentation should be structured to discuss compliance with the CAA, including the Conformity Review requirements, as well as State and local air quality requirements. The various levels of NEPA documentation (Categorical Exclusion, EA and EIS) should all contain the information necessary to satisfy General Conformity.

If a conformity determination is required, it should be contained in a "stand-alone" appendix to the NEPA document. If calculations are required to determine that emissions resulting from the action would be below de minimis levels, the Record of Non-Applicability should be presented in an appendix to the NEPA document. This appendix must stand-alone for all regulatory and public review, so it should

contain a general description of the proposed action. NEPA Categorical Exclusions may not be used for a non-exempt action that exceeds the conformity de minimis thresholds.

All decisions made as part of the Conformity Review process shall be summarized in the text of the NEPA document, with reference to the detailed supporting information/data in the appendix, as appropriate. If a different approach is required by the special circumstances of a particular project, approval by CNO (N45) is required.

To address other non-conformity air quality impacts in the NEPA document, a subheading covering compliance with the NAAQS and other CAA requirements should be included. This section should include any additional analysis required by other portions of the CAA, or other analysis requested by the State to show that the action is in compliance with the SIP. For purposes of presenting the information, a separate appendix titled "Compliance with the NAAQS and other CAA requirements" should be used if the material is too bulky or technical for the text.

Calculating a project's air emissions in accordance with the General Conformity Rule differs from the traditional air quality analyses included in NEPA documents. The definition of "indirect emissions" under conformity is narrower than NEPA's definition of "indirect impacts." Also, the General Conformity Rule allows exemptions and presumptions not otherwise available under traditional NEPA analysis. Finally, conformity only requires compliance with the "applicable SIP," which means those portions of the SIP approved by EPA. A Federal action, however, is subject to all Federal, State and local air quality pollution and abatement requirements, regardless of whether they have been approved by EPA. The NEPA analysis must identify and evaluate any Federal, State or local requirements that apply to the project even if they are not included in the SIP. These differences could result in the presentation of differing sets of air quality data, causing confusion among the EA or EIS reviewers if the NEPA documentation does not clearly identify and distinguish the Conformity Review decisions.

4.4 Impacts of the New NAAQS

In July 1997, EPA finalized new NAAQS for ozone and particulate matter and subsequently revoked the non-attainment designations for a number of areas in anticipation of implementation of the new standards. Those standards were challenged, however, and in May 1999, the D.C. Circuit Court of Appeals rejected the new CAA standards, finding them unconstitutional. The case was ultimately heard by the Supreme Court, which in February 2001 upheld EPA's authority to establish health-based standards. The Supreme Court rejected EPA's implementation plan for the new standards, however, so EPA must develop a new plan. After the initial challenge to the standards, EPA reinstated the 1-hour ozone standard in areas where it had been revoked. Therefore, installations in these areas, as well as all other installations in non-attainment and maintenance areas, are required to implement conformity requirements as detailed in this guidance. Additional areas are expected to be designated as non-attainment under the new, more stringent standards, but the full impacts from the new NAAQS will not be known until EPA develops a revised implementation plan and designates areas under the new standards.

5 Procedures

5.1 Determining Applicability (40 CFR 93.153)

The following steps should be followed to determine the applicability of the General Conformity Rule to a Federal action. A chart summarizing the steps to determine applicability is provided in TAB E.

STEP 1: Define the Federal Action.

The first step in the process is to define the scope of the action. Federal action is defined in the conformity rule as “any activity engaged in by a department, agency or instrumentality of the Federal government or any activity that a department, agency or instrumentality of the Federal government supports in any way, provides financial assistance for, licenses, permits, or approves.”

The discussion of the action should include any identified alternatives. To facilitate comparison and review of the alternatives, they should be summarized in a table that includes a brief description of the major elements, such as construction projects and changes in personnel loading, motor vehicle use and number of aircraft and ships operating at the installation. The discussion and summary of the alternatives should include the “No Action” alternative. Routine or nominal actions may not have any identified alternatives; therefore, no additional discussion would be necessary.

The Federal action for conformity purposes can be different from the Federal action for NEPA purposes. The conformity action is allowed to cover a shorter timeframe or have a more defined scope than the NEPA action may have. Conformity actions can also reach farther back in time than the NEPA action, when necessary to establish appropriate comparison years for netting emission increases and decreases. Consult with legal counsel and CNO (N45) if the proposed action may have these issues.

STEP 2: Is the Action Located in an Air Quality Non-attainment or Maintenance Area?

The General Conformity Rule applies only to actions that generate emissions in non-attainment or maintenance areas. In the preamble to the rule EPA stated its intent to propose a supplemental rule that would require conformity determinations in attainment areas that have exceeded 85 percent of the NAAQS. However, as a result of Pub. L. No. 104-59, the National Highway System Designation Act of 1995, Section 176(c) of the CAA was amended to limit applicability of the conformity requirement to non-attainment and maintenance areas. Specifically, adding a new subsection at the end of Section 176(c) amended the Act to read:

"(5) Applicability. This subsection shall apply only with respect to

(1) A non-attainment area and each pollutant for which the area is designated as a non-attainment area; and

(2) An area that was designated as a non-attainment area but that was later re-designated by the Administrator as an attainment area and that is required to develop a maintenance plan under the CAA with respect to the specific pollutant for which the area was designated non-attainment."

There are a few special circumstances, however, when conformity determinations may be required for actions that are located in attainment areas. If the action is located in an attainment area but emissions from mobile sources associated with the action are generated in a nearby non-attainment area, those emissions must be evaluated in accordance with the rule. Two examples of such a circumstance are installation employees who drive to work from or through a non-attainment area, and helicopters that fly low-level paths in a non-attainment area.

Areas designated as maintenance prior to January 1990 are not subject to the rule (see the preamble response to comments in the Federal Register at 58 FR 63238 (30 November 1993)).

If the action is located in an air quality non-attainment or maintenance area, or falls within the special circumstances described above, proceed to STEP 3. If the action is located in an attainment area and no special circumstances exist, stop here; the General Conformity Rule does not apply.

STEP 3: Does the Action Result in the Emission of Criteria Pollutants?

The General Conformity Rule requires analysis only of emissions of criteria pollutants and their precursors for which an area is designated non-attainment or that are covered by a maintenance plan. If the action results in the emission of criteria pollutants for which an area is designated non-attainment or maintenance, proceed to STEP 4.

If the action results in the emission of criteria pollutant(s) other than those for which the area is designated non-attainment or maintenance, stop here; the General Conformity Rule does not apply.

STEP 4: Is The Action (Or Portion Of The Action) Exempt From Conformity Requirements?

EPA has determined the following Federal actions (or portions thereof) to be exempt:

a. Actions as identified by EPA in 40 CFR 93.153 that would result in no emission increase or an increase that is clearly de minimis. A complete list of these actions, considered "exempt by definition," is provided in TAB F.

b. The following actions where the emissions are not reasonably foreseeable:

(1) Initial Outer Continental Shelf lease sales, which are made on a broad scale and are followed by exploration and development plans on a project scale;

(2) Electric power marketing activities that involve the acquisition, sale, and transmission of electric energy.

c. Actions implementing a decision to conduct or carry out a program for which a conformity determination has been made.

d. Actions that are determined exempt, regardless of the amount of emissions, because they are sufficiently covered by another program, positively contribute to air quality or fall within the emergency category:

(1) The portion of an action that includes major new or modified stationary sources that require a permit under the new source review (NSR) program (Section 173 of the Act) or the prevention of significant deterioration (PSD) program (Title I, Part C of the Act);

(2) Actions in response to emergencies or natural disasters such as hurricanes, earthquakes, etc., which are commenced on the order of hours or days after the emergency or disaster and, if applicable, which meet the requirements of paragraph (e) of this section;

(3) Research, investigations, studies, demonstrations, or training (other than those exempted under paragraph (a) of this section), where no environmental detriment is incurred, and/or the particular

action furthers air quality research, as determined by the State agency primarily responsible for the applicable SIP;

(4) Alteration and additions of existing structures as specifically required by new or existing applicable environmental legislation or environmental regulations (e.g., hush houses for aircraft engines and scrubbers for air emissions);

(5) 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 either comply with the substantive requirements of the PSD/NSR permitting program or are exempted from other environmental regulation under the provisions of CERCLA and applicable regulations issued under CERCLA.

e. Emergency actions that continue for more than 6 months continue to be exempt only if the Federal agency makes a written determination that for a specified period not to exceed an additional 6 months, it is impractical to prepare the conformity analyses and the action cannot be delayed due to overriding concerns for public health, welfare, national security interests or foreign policy commitments. New determinations must be made for each additional 6-month period.

CAA Section 182(f) NO_x Exemptions. In addition to the exemptions noted above, an area may also receive an exemption from the conformity requirements for NO_x if EPA determines that additional NO_x reductions would not contribute to attainment of the ozone standard in the area. A summary of areas that have received these exemptions may be found on the World Wide Web at <https://www.denix.osd.mil/denix/DOD/Working/CAASSC/Ozone/182fstatus.html>. However, these exemptions are subject to change as areas are re-designated so facilities should confirm the status of the exemption with the Air District, State or EPA Region.

Procurement Actions. The General Conformity Rule does not apply to procurement actions; however, at one time EPA believed the General Conformity Rule should apply to some categories of procurement actions, as yet undefined, and has stated that it will address exemptions and the process for applying conformity to procurement activities in a future rulemaking. For purposes of interpreting the present rule, Navy considers procurement actions not covered by the rule to include such things as the acquisition of supplies or services produced or developed by non-Federal entities at a location other than the Federal installation. On the other hand, acquisition of supplies such as the construction of buildings, or the provision of services such as facility support contracts on a Federal installation, are covered by this rule.

All of the sources of emissions caused by an action should be separately evaluated to determine if any source is exempt. In some cases, the entire action will be exempt from the rule; in other cases, only portions of the action or individual sources will be exempt from the rule. Note, however, that some categories cannot be combined without violating the purpose of the rule. For example, routine maintenance operations could usually be exempted, but not if they are being relocated as part of a larger realignment into a new air district. Also, the routine movement of ships and aircraft to perform as operational groups and/or for repair or overhaul may be included in the exemption; however, a new homeport assignment of ships or aircraft that adds new facilities or personnel to an area cannot be included in the exemption.

If the source is determined not to be exempt, include it in the total emissions for the action and proceed to STEP 5. If the source is one that is exempt due to any of the above circumstances, the emissions

associated with the source should not be included in the total emissions for the action. If the entire action is exempt, stop here. Prepare a Record of Non-Applicability (RONA) to document the basis for exempting the emissions from the action (or portion of the action). Refer to Section IV of this guidance for further discussion and see TAB D for an example.

STEP 5: Is the Action Presumed to Conform?

Under Section 93.153(f) of the rule, Navy may develop through rulemaking, categories of actions that are presumed to conform. No such rulemaking has been initiated at this time; therefore there are no Navy "presumed to conform" categories. CNO (N45) is responsible for identifying appropriate circumstances and developing the rulemaking. Proceed to STEP 6.

STEP 6: Identify all Direct Emissions Caused by the Federal Action.

Direct emissions are those emissions caused by the Federal action and that occur at the same time and place as the Federal action. Emissions are caused by the Federal action if they would not otherwise occur in the absence of the Federal action. Typically, direct emissions will include those emissions associated with sources that are owned or operated by a Federal installation. This includes emissions from all mobile, area and stationary sources, including emissions from the construction phase of a project. Emissions should be calculated in tons per year on an annual calendar basis.

Reasonably foreseeable is not an element of the definition of Direct Emissions; however, the concepts are incorporated into the definition itself, as the emissions must occur at the "same time and place" as the Federal action. Essentially, the emissions must flow directly from the federally owned or operated aspects of the Federal action.

Proceed to STEP 7 to determine if any indirect emissions are caused by the action.

STEP 7: Identify All Reasonably Foreseeable Indirect Emissions Caused By the Federal Action.

Indirect emissions are those emissions that are caused by the Federal action, but that may occur later in time and/or may be farther removed in distance from the action itself but that are still reasonably foreseeable. Emissions are caused by the Federal action if they would not otherwise occur in the absence of the Federal action. Typically, indirect emissions will include two types: (1) emissions from mobile sources that are associated with the Federal action but that are not owned or operated by the Federal agency (i.e., employee vehicles, delivery trucks); and (2) emissions from the actions of private entities under a Federal lease, permit, or approval.

Reasonably foreseeable emissions are those that can be identified at the time the conformity determination is made, their location is known, and the emissions are quantifiable, as described and documented by the Federal agency based on its own information and after reviewing any information presented to the Federal agency. If reasonably foreseeable indirect emissions caused by the action are identified, proceed to STEP 8. If the indirect emissions caused by the action or any portion of the action are not reasonably foreseeable, those emissions are not included in the total emissions for the action; proceed to STEP 9.

STEP 8: Can the Indirect Emissions Caused By the Federal Action Be Practicably Controlled Due To Continuing Program Responsibility?

In calculating total emissions it is important to distinguish between direct emissions and indirect emissions. All direct emissions must be included in the calculation. Indirect emissions are included in the calculation, however, only if two criteria are met. First, the emissions must be reasonably foreseeable, and second, they must be caused by an emission source that is within the Federal agency's ability to practicably control and that will be controlled due to a continuing program responsibility.

Emissions that a Federal agency has a continuing program responsibility for means emissions that are specifically caused by an agency carrying out its authorities, and does not include emissions that occur due to subsequent activities, unless such activities are required by the Federal agency. Where an agency is performing its normal program responsibilities, takes actions itself, or imposes conditions that result in air pollutant emissions by a non-Federal entity taking subsequent actions, such emissions are considered within a continuing program responsibility. If the Federal action is a lease, the agency will often have sufficient control over the emissions to constitute a "continuing program responsibility."

For example, if an action will result in 200 new families living in off-base housing, only those motor vehicle emissions associated with base personnel commuting to and from work should be included in the emissions calculation. Motor vehicle use for shopping trips and other errands, and emissions from heating homes off-base, are not emissions the Federal agency can control. Commuting can be controlled; at least to the degree Navy can encourage carpooling and the use of public transit through various incentive programs. When calculating construction phase emissions, construction employee vehicle emissions generated while driving on base would be indirect emissions potentially under Federal control. The construction employee vehicle emissions generated while commuting are not indirect because they are not caused by the Federal action, nor controlled by Navy, and presumably the construction workers would be driving to work regardless of our action.

If indirect emissions caused by the action that are both reasonably foreseeable and may be practicably controlled are identified, proceed to STEP 9 and include those emissions in the calculation of total emissions. If the indirect emissions associated with the action or any portion of the action may not be practicably controlled through a continuing agency program responsibility, those emissions should not be included in the total emissions for the action. Proceed to STEP 9.

STEP 9: Determination of Total Emissions.

Direct and indirect emissions from all non-exempt sources of criteria pollutants (or their precursors) caused by the Federal action must be included in the calculation of total emissions. The total direct and indirect emissions must be calculated for each non-attainment or maintenance pollutant (or precursor) in tons per year for each year of the project up to the attainment date for that pollutant. For the purposes of determining total emission levels for ozone, NO_x and VOCs are treated separately (not added together) to determine the total emissions. The rule makes it clear, however, that only the net emissions must be considered (i.e., the sum of direct and indirect emission increases and decreases caused by the Federal action).

The calculation of net emissions allows the subtracting out of emission sources associated with activities that are moving from the installation, as well as adding in emissions from the new activities. In order for the conformity analysis to net the decreases and increases, however, they must be characterized as one Federal action. Realignment, consolidations, and replacements of aircraft, vessels or equipment, are all good examples of situations where netting works well.

Procedures for calculating total emissions are provided in Section V(C) and TAB H. Once the total emissions have been determined, proceed to STEP 10.

STEP 10: Are the Total Emissions Resulting From the Action Below De Minimis Levels?

Each calendar year's total of direct and indirect emissions for each non-attainment or maintenance pollutant must be compared to the de minimis levels set out in the rule and in Figure F-1 and Figure F-2 below. Actions where the total of all reasonably foreseeable direct and indirect emissions do not equal or exceed the de minimis levels are exempt. If each year's total emissions are less than the de minimis levels for the pollutant, proceed to STEP 11. If the total emissions are equal to or greater than the de minimis levels for the pollutant in any year, a formal Conformity Determination is required for that pollutant.

Re-evaluate Project. Before proceeding with a conformity determination, it is recommended that the project be re-evaluated to determine if it can be redesigned to result in emissions that are below the de minimis thresholds. For example, has all the available pollution control equipment been included in the original design, or can additional control equipment be added? Can the actions be phased in on a different time schedule to result in lower annual emissions? Can the location, duration or intensity of any of the activities be altered to result in lower emissions? If any of the above or similar actions are available, the Federal action should be re-defined to include those revisions.

DE MINIMIS THRESHOLD LEVELS FOR NONATTAINMENT AREAS (Section 93.153(b)(1))	
POLLUTANT	TONS/YEAR
OZONE (VOCs OR NO _x)	
SERIOUS NAA's	50
SEVERE NAA's	25
EXTREME NAA's	10
OTHER OZONE NAA'S OUTSIDE AN OZONE TRANSPORT REGION	100
MARGINAL AND MODERATE NAA's INSIDE AN OZONE TRANSPORT REGION:	
VOC	50
NO _x	100
CARBON MONOXIDE: ALL NAA's	100
SO ₂ OR NO ₂ : ALL NAA'S	100
PM-10:	
MODERATE NAA'S	100
SERIOUS NAA'S	70
Pb: ALL NAA'S	25

Figure F-1 DE MINIMIS THRESHOLD LEVELS FOR NONATTAINMENT AREAS

DE MINIMIS THRESHOLD LEVELS FOR MAINTENANCE AREAS (Section 93.153(b)(2))	
POLLUTANT	TONS/YEAR
OZONE (NO _x), SO ₂ OR NO ₂ : ALL MAINTENANCE AREAS	100
OZONE (VOC's): MAINTENANCE AREAS INSIDE AN OZONE TRANSPORT REGION	50
MAINTENANCE AREAS OUTSIDE AN OZONE TRANSPORT REGION	100
CARBON MONOXIDE: ALL MAINTENANCE AREAS	100
PM-10: ALL MAINTENANCE AREAS	100
Pb: ALL MAINTENANCE AREAS	25

Figure F-2 DE MINIMIS THRESHOLD LEVELS FOR MAINTENANCE AREAS

STEP 11: Is The Action Regionally Significant?

Regionally significant actions are defined as actions where the emissions represent 10 percent or more of a non-attainment or maintenance area's total emission budget for that pollutant. If the emissions resulting from an action are below de minimis levels and do not account for more than 10 percent of an area's emission budget, stop here, and document the de minimis exemption as required by this guidance. If the emissions are determined to be regionally significant, the action is not exempt, even if the emissions are below the de minimis levels, and a formal Conformity Determination is required. However, before proceeding with a conformity determination, it is recommended that the project be re-evaluated to determine if it can be redesigned to result in emissions that are below the regional significance thresholds. Actions exempted by the conformity rule are presumed to not be regionally significant. See TAB F for the listing.

5.2 Typical Emissions Sources to be Included in the Total Emissions Calculation

All emissions caused by the project from the operation of stationary sources including emissions from:

- Aircraft Maintenance Facilities
- Ship Maintenance Facilities
- Fuel Storage and Handling Facilities
- Hazardous Waste Storage and Transfer Facilities
- Weapons Receiving/Assembly/Packing
- Airfield Facilities
- Port Facilities
- Hangars

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- General Warehousing Facilities
- Personnel Housing (BOQ, BEQ, Family Housing)
- Support Service Facilities (Child Care, Family Services)
- Reserve Training Facilities
- Utility Upgrading
- New Power Plants/Expanded Use of Existing Plants
- Incinerators

All emissions caused by the project from the Construction phase including emissions from the following sources:

- Surface disturbance
- Construction equipment (bulldozers, backhoes, etc, at site)
- Construction of facilities (paints, coatings, solvents, adhesives)
- Delivery trucks (on-base emissions only)

All emissions caused by the project from the operation of mobile sources including emissions from the following sources:

- Aircraft (below 3,000 ft above ground level in air district)
- Ground support equipment
- Vessels (out to territorial sea within air district)
- Locomotives
- Government fleet vehicles
- Private motor vehicles (Federal worker commutes only)
- Lawn and garden equipment
- Non-road vehicles
- Non-road equipment (cranes)
- Tactical vehicles and equipment

5.3 Emission Estimation Procedures

Assumptions used in calculating emissions should be verified to the extent possible to reflect the most accurate information available; all assumptions must be thoroughly documented. To facilitate comparison and review, the analysis must include a year-by-year summary chart listing the emissions from each source category and the annual total for the baseline year and each year of the project, out to the expected steady-state year. In accordance with the requirements of 40 CFR 93.159, analyses must be based on the latest and most accurate emission estimation techniques available. If such techniques are determined to be inappropriate, written approval must be obtained from the EPA Regional Administrator on a case-by-case basis for any modification or substitution. All techniques used must be documented and explained. EPA Regions have readily accepted Navy specialty office emission models for aircraft, vessels and ground support equipment.

For motor vehicle emissions, the most current version of the motor vehicle emissions model specified by EPA and available for preparing or revising the SIP must be used. EPA will publish a notice of availability of any new motor vehicle emissions model in the Federal Register and a grace period of 3 months is allowed during which the previous model may be used. Analyses started during this grace period or no more than 3 years before a Federal Register notice of a newer model appears can continue to

use the previous version. Copies of the program output must be included in the analysis. In California, the approved model is the one utilized by the California Air Resources Board (CARB).

For non-motor vehicle emissions, including stationary and area sources, the rule specifies that the latest emission factors specified by EPA in Compilation of Air Pollutant Emission Factors (AP-42) must be used unless more accurate data are available, such as actual emission test data. Recognizing that more accurate factors may also be available, EPA has demonstrated a willingness to accept emission factors from other recognized sources, such as other EPA documents, references developed by the State or air district, or factors developed by recognized military department experts. However, the project manager must obtain written approval from EPA to use factors other than those found in AP-42 and the sources for all emission factors used in the analysis must be thoroughly documented. The results of the calculations must be included in the analysis and sample calculations must be provided.

Emissions from aircraft and vessels within certain boundaries must be included in the total emissions. Navy activities are directed to routinely request review by the lead Navy authority for various emission estimates. This includes the Aircraft Environmental Support Office (AESO) for aircraft; the Naval Sea Systems Command, Code 03 for ships; and the Ordnance Environmental Support Office (OESO) for ordnance. Detailed emission estimation procedures are provided in TAB H.

TAB A

DEFINITIONS (40 CFR 93.152):

1. Caused By, as used in the terms "direct emissions" and "indirect emissions," means emissions that would not otherwise occur in the absence of a Federal action.
2. Cause or Contribute to a New Violation means a Federal action that causes a new violation of a NAAQS at a location in a non-attainment or maintenance area which would otherwise not be in violation of the standard if the Federal action were not taken; or contributes, in conjunction with other reasonably foreseeable actions, to a new violation of a NAAQS at a location in a non-attainment or maintenance area in a manner that would increase the frequency or severity of the new violation.
3. Criteria Pollutant or Standard means any pollutant for which there is a NAAQS established at 40 CFR Part 50.
4. Direct Emissions means those emissions of a criteria pollutant or its precursors that are caused or initiated by a Federal action and that occur at the same time and place as the action.
5. Emergency means a situation where extremely quick action on the part of the Federal agencies involved is needed and where the timing of such Federal activities makes it impractical to meet the conformity requirements, such as natural disasters like hurricanes or earthquakes, civil disturbances such as terrorist acts, and military mobilizations.
6. Emissions that a Federal agency has a Continuing Program Responsibility for means emissions that are specifically caused by an agency carrying out its authorities, and does not include emissions that occur due to subsequent activities, unless such activities are required by the Federal agency. Where an agency, in performing its normal program responsibilities, takes actions itself or imposes conditions that result in air pollutant emissions by a non-Federal entity taking subsequent actions, such emissions are covered by the meaning of a continuing program responsibility.
7. Federal Action means any activity engaged in by a department, agency, or instrumentality of the Federal government, or any activity that a department, agency or instrumentality of the Federal government supports in any way, provides financial assistance for, licenses, permits, or approves, other than activities related to transportation plans, programs, and projects developed, funded, or approved under Title 23 of the U.S. Code or the Federal Transit Act. Where the Federal action is a permit, license or other approval for some aspect of a non-Federal undertaking, the relevant activity is the part, portion or phase of the non-Federal undertaking that requires the Federal license, permit, or approval.
8. Indirect Emissions means those emissions of a criteria pollutant or its precursors that: 1) are caused by a Federal action but may occur later in time and/or may be farther removed in distance from the action itself but are still reasonably foreseeable; and 2) the Federal agency can practicably control and will maintain control over due to a continuing program responsibility of the Federal agency.
9. Maintenance Area means an area with a maintenance plan approved under Section 175A of the CAA.

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10. Metropolitan Planning Organization (MPO) is the organization that is responsible, along with the State, for conducting the continuing, cooperative, and comprehensive planning process under 23 U.S.C. 134 and 49 U.S.C. 1607.

11. Precursors of a Criteria Pollutant are: for ozone, nitrogen oxides (NO_x), unless an area is exempted from NO_x requirements under Section 182(f) of the CAA, and volatile organic compounds (VOCs); and for PM-10, those pollutants described in the PM-10 non-attainment area applicable SIP as significant contributors to the PM-10 levels.

12. Reasonably Foreseeable Emissions are projected future indirect emissions that are identified at the time the conformity determination is made; the location of such emissions is known and the emissions are quantifiable, as described and documented by the Federal agency based on its own information and after reviewing any information presented to the Federal agency.

13. Regionally Significant Action means a Federal action for which the direct and indirect emissions of any pollutant represent 10 percent or more of a non-attainment or maintenance area's emission inventory for that pollutant.

14. Total of Direct and Indirect Emissions means the sum of direct and indirect emissions increases and decreases caused by the Federal action; i.e., the net emissions considering all direct and indirect emissions. The portion of emissions which are exempt or presumed to conform under 40 CFR 93.153 (c), (d), (e) or (f) are not included in the "total of direct and indirect emissions." The "total of direct and indirect emissions" includes emissions of criteria pollutants and emissions of precursors of criteria pollutants.

TAB B

Regional Contacts for State Implementation Plan Information

Region	Affected States	Regional Contact	Online Information
1	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	Donald Cooke (617/918-1668) EPA, Office of Ecosystem Protection (CAQ), Suite 1100, One Congress Street, Boston, MA 02114-2023	http://www.epa.gov/region1/topics/air/sips.html
2	New Jersey, New York, Puerto Rico, Virgin Islands	Paul Truchan (212/637-3711) EPA, Air Programs Branch, 290 Broadway, New York, NY 10007-1866	Not available
3	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia	Harold A. Frankford (215/814-2108) EPA, Office of Air Programs (3AP20), Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103	http://www.epa.gov/reg3artd/airregulations/sip.htm
4	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee	Sean Lakeman (404/562-9043) EPA, Air Planning Branch, 61 Forsyth Street, S.W., Atlanta, GA 30303	http://www.epa.gov/region4/air/sips/index.html
5	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin	Charles Hatten for the States of Michigan, Minnesota and Wisconsin (312/886-6031); Jeremiah Hall (312/353-3503) for the States of Illinois, Indiana, and Ohio EPA, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, IL 60604-3507	http://www.epa.gov/ARD-R5/sips/index.html
6	Arkansas, Louisiana, New Mexico, Oklahoma, Texas	Bill Deese (214/665-7253) EPA, Multimedia Planning and Permitting Division, Air Planning Section, (6PD-L), 1445 Ross Avenue, Suite 700, Dallas, TX 75202-2733	http://www.epa.gov/earth1r6/6pd/air/sip/sip.htm

Region	Affected States	Regional Contact	Online Information
7	Iowa, Kansas, Missouri, Nebraska	Evelyn Van Goethem (913-551-7659) EPA, Air, RCRA and Toxics Division, Air Planning and Development Branch, 901 N. 5th Street, Kansas City, KS 66101	http://www.epa.gov/region07/program/artd/air/rules/fedapprv.htm
8	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming	Laurie Ostrand (303/312-6437) EPA, Air and Radiation Program, Office of Partnership and Regulatory Assistance, 999 18th Street, Suite 300, Denver, CO 80202-2466	Not available
9	Arizona, California, Hawaii, Nevada, American Samoa, Guam	Julie Rose (415/744-1184), and Cynthia Allen (415/744-1189) EPA, Air Division, AIR-4, 75 Hawthorne Street, San Francisco, CA 94105	http://www.epa.gov/region9/air/sips
10	Alaska, Idaho, Oregon, Washington	Donna Deneen (206/553-6706) and Debra Suzuki (206) 553-0985) EPA, Office of Air Quality (OAQ 107), 1200 6th Avenue, Seattle, WA 98101	http://www.epa.gov/r10earth/sips.htm

TAB C					
SUMMARY OF CONFORMITY DETERMINATION CRITERIA					
	Area wide Only		Local and/or Area wide		Local Only
Section 93.158(a)	O ₃	NO ₂	PM-10	CO	Pb/SO ₂
(1)Specified in attainment or maintenance demonstration	X	X	X	X	X
(2)Offsets within same area	X	X			
(3)(i)Area wide and local modeling			X	X	X
(3)(ii)Local modeling and (5)			X	X	X
(4)(i)Local modeling only if local problem			X	X	
(4)(ii)Area-wide modeling only or (5)			X	X	
(5)(i)Emission budget or State commitment	X	X	*	*	
(5)(ii)Trans- -portation plan	X	X	*	*	
(5)(iii) Offsets	X	X	*	*	
(5)(iv) Baseline	X	X	*	*	
(5)(v)Water Project	X	X	*	*	

"X" Means method is available for making a Conformity Determination for that pollutant

"*" Option if area wide problem only

TAB D

SAMPLE RECORD OF NON-APPLICABILITY (RONA)

NAVY RECORD OF NON-APPLICABILITY FOR CLEAN AIR ACT CONFORMITY

The proposed action falls under the Record of Non-Applicability (RONA) category and is documented with this RONA.

Proposed Action.

Action Proponent

Location:

Proposed Action Name:

Proposed Action & Emissions Summary:

Affected Air Basin(s):

Date RONA prepared:

RONA prepared by:

Proposed Action Exemption(s).

Attainment Area Status and Emissions Evaluation Conclusion.

RONA Approval:

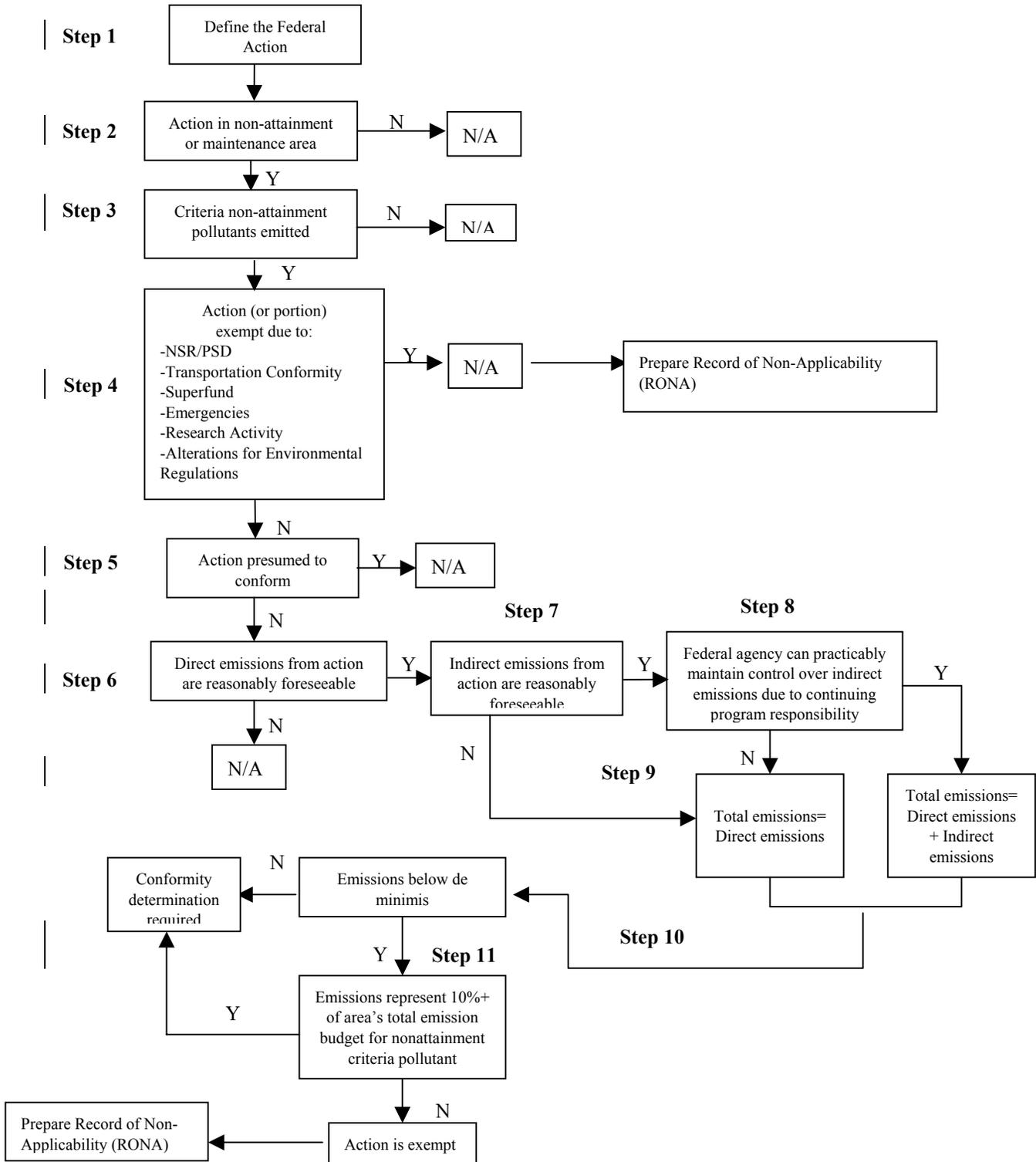
Signature: _____

Name/Rank: _____ Date: _____

Position: ___Commanding Officer _Activity: _____

TAB E

FLOW CHART FOR DETERMINING APPLICABILITY



TAB F

ACTIONS EXEMPT BY RULE (DEFINITION PER 40 CFR 93.153)

Per 40 CFR 93.153, the conformity requirements do not apply to the following actions, which would result in no emissions increase or an increase that is clearly de minimis:

- (i) Judicial and legislative proceedings;
- (ii) Continuing and recurring activities such as permit renewals where activities conducted will be similar in scope and operation to activities currently being conducted;
- (iii) Rulemaking and policy development and issuance;
- (iv) Routine maintenance and repair activities, including repair and maintenance of administrative sites, roads, trails and facilities;
- (v) Civil and criminal enforcement activities, such as investigations, audits, inspections, examinations, prosecutions and the training of law enforcement personnel;
- (vi) Administrative actions, such as personnel actions, organizational changes, debt management or collection, cash management, internal agency audits, program budget proposals, and matters relating to the administration and collection of taxes, duties and fees;
- (vii) The routine, recurring transportation of materiel and personnel;
- (viii) Routine movement of mobile assets, such as ships and aircraft, in homeport reassignments and stations (when no new support facilities or personnel are required) to perform as operational groups and/or for repair or overhaul;
- (ix) Maintenance dredging and debris disposal where no new depths are required, applicable permits are secured, and disposal will be at an approved disposal site;
- (x) Actions, such as the following, with respect to existing structures, properties, facilities and lands where future activities conducted will be similar in scope and operation to activities currently being conducted at the existing structures, properties, facilities, and lands; for example, relocation of personnel, disposition of Federally-owned existing structures, properties, facilities, and lands, rent subsidies, operation and maintenance cost subsidies, the exercise of receivership or conservatorship authority, assistance in purchasing structures, and the production of coins and currency;
- (xi) The granting of leases, licenses such as for exports and trade, permits, and easements where activities conducted will be similar in scope and operation to activities currently being conducted;
- (xii) Planning, studies, and provision of technical assistance;
- (xiii) Routine operation of facilities, mobile assets and equipment;
- (xiv) Transfers of ownership, interests, and titles in land, facilities, and real and personal properties, regardless of the form or method of transfer;
- (xv) The designation of empowerment zones, enterprise communities, or viticultural areas;
- (xvi) Actions by any of the Federal banking agencies or the Federal Reserve Banks, including actions regarding charters, applications, notices, licenses, the supervision or examination of depository institutions or depository institution holding companies, access to the discount window, or the provision of financial services to banking organizations or to any department, agency, or instrumentality of the United States;
- (xvii) Actions by the Board of Governors of the Federal Reserve System or any Federal Reserve Bank to effect monetary or exchange rate policy;
- (xviii) Actions that implement a foreign affairs function of the United States;
- (xix) Actions (or portions thereof) associated with transfers of land, facilities, title, and real properties through an enforceable contract or lease agreement where the delivery of the deed is required to occur promptly after a specific, reasonable condition is met, such as promptly after the land is certified as

meeting the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and where the Federal agency does not retain continuing authority to control emissions associated with the lands, facilities, title, or real properties;

(xx) Transfers of real property, including land, facilities, and related personal property from a Federal entity to another Federal entity and assignments of real property, including land, facilities, and related personal property from a Federal entity to another Federal entity for subsequent deeding to eligible applicants;

(xxi) Actions by the Department of the Treasury to effect fiscal policy and to exercise the borrowing authority of the United States.

Property disposal actions resulting from the Base Closure process will typically fall into exemption categories (xi) leases, (xiv) transfers of title, (xix) CERCLA transfer agreements or leases, and (xx) public benefit transfers to other Federal agencies.

TAB G

**AREAS WITH GENERAL CONFORMITY NO_x EXEMPTIONS
UNDER SECTION 182(f)***

State	Area/Counties Affected	Date/Federal Register Cite
Alabama	Birmingham	30 Aug 1993
Arizona	Phoenix (Maricopa County)	19 Apr 1995/ 60 FR 19515
California	Monterey Bay area (Monterey, San Benito and Santa Cruz Counties)	25 Apr 1995/ 60 FR 20237
	San Francisco-Bay Area (Alameda, Contra Costa, Marin, Napa, San Francisco, Santa Clara, San Mateo and Solano Counties) Note: Because this area was re-designated to non-attainment there is some question as to whether the exemption still applies. Confirm the exemption with the District/EPA Region.	22 May 1995/ 60 FR 27028; area re-designated non-attainment 10 Jul 1998/ 63 FR 37258
Colorado	Denver metropolitan area (Adams, Arapahoe, Boulder, Denver, Douglas and Jefferson Counties)	8 Aug 1995/ 60 FR 40291
Illinois	Chicago-Gary-Lake County area (Cook, DuPage, Grundy, Kane, Kendall, Lake, McHenry and Will Counties)	26 Jan 1996/ 61 FR 2428
Indiana	Chicago-Gary-Lake County area (Elkhart, Lake, Porter, St. Joseph Counties)	26 Jan 1996/ 61 FR 2428
Kentucky	Huntington-Ashland area (Boyd and Greenup Counties)	3 May 1995/ 60 FR 21717
	Cincinnati-Hamilton (Boone, Campbell and Kenton Counties)	19 Jun 2000/ 65 FR 37879
Louisiana	Baton Rouge (East Baton Rouge, West Baton Rouge, Pointe Coupee, Livingston, Iberville and Ascension Parishes)	26 Jan 1996/ 61 FR 2446
	Lake Charles (Calcasieu Parish)	29 May 1997/ 62 FR 29078
Maine	Northern Maine (Oxford, Franklin, Somerset, Piscataquis, Penobscot, Washington, Aroostook, Hancock and Waldo Counties)	26 Dec 1995/ 60 FR 66755
Michigan	East Lansing area	27 Apr 1995/ 60 FR 20649
	Genessee County	27 Apr 1995/ 60 FR 20649
	Grand Rapids (Kent and Ottawa Counties) and Muskegon County	26 Jan 1996/ 61 FR 2428

* **Note:** These areas have been granted exemptions from the conformity requirements for NO_x under CAA Section 182(f). However, these exemptions are subject to change and their status should be verified with the Air District, State or EPA Region.

State	Area/Counties Affected	Date/Federal Register Cite
Michigan (cont)	Allegan, Barry, Bay, Berrien, Branch, Calhoun, Cass, Clinton, Eaton, Gratiot, Hillsdale, Ingham, Ionia, Jackson, Kalamazoo, Lenawee, Midland, Montcalm, St. Joseph, Saginaw, Shiawasse and Van Buren Counties	26 Jan 1996/ 61 FR 2428
Ohio	Columbus, Clinton, Columbiana, Preble, Youngstown, and Canton (Clinton, Columbiana, Delaware, Franklin, Jefferson, Licking, Mahoning, Preble, Stark and Trumbull Counties)	13 Jul 1995/ 60 FR 36060
	Cleveland, Akron and Cincinnati (Ashtabula, Butler, Clermont, Cuyahoga, Geauga, Hamilton, Lake, Lorain, Medina, Portage, Summit and Warren Counties)	13 Jul 1995/ 60 FR 36060
	Toledo and Dayton (Lucas, Wood, Clark, Greene, Miami and Montgomery Counties)	19 Jan 1995/ 60 FR 3766
Tennessee	Nashville area (Davidson, Rutherford, Sumner, Williamson and Wilson Counties)	23 Oct 1996/ 61 FR 54943
Texas	El Paso County	28 Nov 1994/ 59 FR 60714
Virginia	Richmond Area (Charles City, Chesterfield, Hanover and Henrico Counties and cities of Richmond, Colonial Heights and Hopewell)	21 Jul 1997/ 62 FR 38922
Wisconsin	Door, Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington and Waukesha Counties	26 Jan 1996/ 61 FR 2428

* **Note:** These areas have been granted exemptions from the conformity requirements for NO_x under CAA Section 182(f). However, these exemptions are subject to change and their status should be verified with the Air District, State or EPA Region.

TAB H

EMISSION ESTIMATION PROCEDURES

1 Aircraft

For aircraft, all emissions up to the mixing height, generally 3,000 ft above ground level (AGL), generated within the non-attainment area boundaries must be included in the emissions calculation. Mixing zones vary from region to region, and local meteorological data should be consulted. To calculate aircraft emissions, assistance is available from the Navy's Aircraft Environmental Support Office (AESO).

1.1 Operations

a. **Methodology.** Traditionally, the landing and takeoff (LTO) cycle begins when the aircraft approaches the installation on its descent from cruising altitude, lands, and taxis to the gate. The cycle continues as the aircraft taxis back out to the runway for subsequent takeoff and climb-out as it heads back up to cruising altitude. The five operating modes in a conventional LTO cycle as described by EPA are:

- Approach
- Taxi/idle-in
- Taxi/idle-out
- Takeoff
- Climb-out

As Navy has developed more conformity analyses involving aircraft, it has refined the classic LTO cycle to incorporate additional discrete operating modes that also contribute emissions. For Navy conformity analyses, emissions from the following operating modes (and any other modes applicable to a particular type of aircraft) must be included

- APU use (for certain aircraft)
- Pre-taxi system checks
- Taxi out
- Take-off
- Climb-out
- Level portion of flight below 3000 feet
- Approach
 - Straight in
 - Overhead break
- Landing
- Taxi-in
 - With hot refueling
 - Without hot refueling

Circular patterns (Touch-&-Go, Fleet Carrier Landing Practice and Ground Controlled Approach Box) include a momentary touchdown followed by an immediate takeoff. Therefore, these patterns will only include the climb-out, level portion of flight below 3,000 feet AGL and approach modes.

For each aircraft type involved in the action, the following steps should be taken to calculate the emissions. All basic data and assumptions should be included on the calculation sheets as shown in the sample format provided in Table H-1. If an operational cycle includes additional steps, those steps should also be shown on the calculation sheets.

- Determine the number of aircraft and the number of engines per aircraft
- Determine the annual number of operations conducted per aircraft
- Determine the power settings for each operating mode in order to determine the fuel flow per engine and appropriate emission factors (usually given as pounds of pollutant per 1000 pounds of fuel used)
- Determine the time-in-mode for each operating mode
- Multiply the number of operations per aircraft for each operating mode by the number of aircraft, fuel flow rate per engine, number of engines, emission factor, time-in-mode and appropriate conversion factors to obtain the total emissions in tons per year (tpy) for each operating mode

Sum the emissions for all operating modes to obtain the total annual emissions for the aircraft type in tpy.

Items to check: How the action is quantified in total numbers of Aircraft and types of operations. Actions often change scope over the course of the development of the conformity analysis. The document should be reviewed carefully to ensure that the number of aircraft and their associated operations are consistent throughout the conformity analysis. The calculation sheets should include the number of aircraft to facilitate this review.

Consistency with the conformity documentation and other related documents present a real challenge. Since related documents such as noise studies were developed for other purposes, the conformity analysis may not necessarily be consistent with these documents, but the reasons for any differences should be explained in the analysis. For the same reason, numbers taken from other related documents should be carefully examined to ensure that the numbers used in the analysis are appropriate. Another possible cause of error/inconsistency is due to varying interpretations of the types of operations and what is involved. For example, control towers generally count each landing and takeoff separately, while other estimates of aircraft operations use landing/takeoff cycles. The analysis must clearly state how all data are to be interpreted.

Other items to check for include: (1) assuming that circular patterns start from a dead stop and (2) assuming that circular patterns require the use of an afterburner, (3) using a mixing height of 3,000 feet above sea level rather than AGL and (4) failing to include all of the emissions that occur below 3,000 feet AGL within the entire air basin.

b. **Data Sources.** The data needed to calculate aircraft emissions include the migration schedule, unit deployment schedule, number and type of operations, times-in-mode, fuel usage records and power settings. We also need to be specific in identification of what and how many aircraft are in a squadron and whether they are part of the Fleet or Fleet Replacement Squadron (sometimes referred to as the RAG). Also we need to know the timing of when aircraft squadrons will arrive or depart as part of the Federal action (i.e. when the F-14D squadron will retire or F/A-18E squadron will actually be physically located). Of particular importance is the number of aircraft operations that occurred or will occur at the installation. Three sources of information are often utilized:

(1) Installation air traffic control tower information - often the air controllers for an air station will record the number of landings and number of takeoffs at the installation over the course of 1 year. This information usually only identifies the number of landings and takeoffs, and does not contain information on aircraft types or type of operation being conducted. Often, air traffic controllers will also count the number of aircraft entering the surrounding air space, and care must be taken to identify this separately from landings/takeoffs.

If control tower information is used, estimates must be used to determine the types of aircraft and the operations they are conducting.

(2) Aircraft squadron information - the aircraft squadron involved in the action can also provide information on current and historic operations.

(3) Aircraft squadrons train according to a training syllabus to ensure aviators are operational ready. The Naval Aviation Simulation Model (NASMOD) uses training syllabuses to estimate future training requirements and estimate the number of operations the squadron requires to be ready. In practice, the NASMOD estimates may be overestimates because funding for full training does not always occur.

If no other information is available, the major claimant should be requested to provide information on the number and mix of aircraft and operations. In all cases, the major claimant should be requested to validate the number and mix of aircraft and operations involved in a Federal action.

1.2 Aircraft Maintenance

a. **Methodology.** In-aircraft (or in-frame) engine testing, known as maintenance run-ups, is conducted to perform routine maintenance checks and to test engines prior to and following test cell procedures. During maintenance run-ups, each engine is tested under specific power settings that correspond to typical operating modes (i.e., idle, takeoff, climb out and approach). The two common types of engine run-ups are low power and high power. Low power run-ups are routinely done to check operation of replaced components that do not require a high power run-up to verify operation, or to operate another aircraft system that is powered or driven by the engine(s). High power run-ups are performed following maintenance that requires verification of the engine's ability to perform throughout its full range of operation.

TABLE H-1: SAMPLE FORMAT FOR AIRCRAFT EMISSION CALCULATIONS

Year: _____															
Aircraft Type: _____		Engine Model: _____							No. Aircraft: _____						
Flight Operation And Mode	Power Setting	No. Engines In Use	Annual Ops	Time in mode (min)	Fuel Flow Per Engine (lb/hr)	Emission Index (lbs/1000 lbs fuel)					Total Emissions (tpy)				
						CO	NOx	HC	SO2	PM10	CO	NOx	HC	SO2	PM10
Departure															
APU Use															
System Checks															
Taxi Out															
Takeoff															
Climb out															
Level Flight (<3000ft)															
Arrival															
Straight In															
Overhead Break															
Taxi In/shut down															
Hot Refuel															
Touch- and -Go															
Approach															
Climb out															
Level Flight (<3000ft)															
FCLP															
Approach															
Climb out															
Level Flight (<3000ft)															
GCA Box															
Approach															
Climb out															
Level Flight (<3000ft)															
Total Annual Emissions for Aircraft Type															

The emissions calculation procedure for maintenance run-ups is very similar to the procedures for calculating emissions from aircraft operations. For each aircraft type involved in the action, the following steps should be taken to calculate the maintenance emissions. All basic data and assumptions should be included on the calculation sheets:

- (1) Determine the number of aircraft and the number of engines per aircraft
- (2) Estimate the annual number of both low power and high power run-ups conducted per aircraft
- (3) Determine the power settings for each operating mode in order to determine the fuel flow per engine and appropriate emission factors (usually given as pounds of pollutant per 1000 pounds of fuel used)
- (4) Determine the time-in-mode for each operating mode
- (5) Multiply the number of run-ups per aircraft at each operating mode by the number of aircraft, fuel flow rate per engine, number of engines, emission factor, times-in-mode and appropriate conversion factors to obtain the total emissions in tpy for each operating mode
- (6) Sum the emissions for all operating modes to obtain the total annual emissions for the aircraft type in tpy.

Items to check: Make sure the analysis includes emissions from maintenance run-ups in any analysis involving aircrafts. These emissions are quantifiable, are directly attributable to aircraft operations, and must be included in the analysis.

b. **Data Sources.** The data needed to calculate emissions from aircraft maintenance run-ups include the migration schedule, unit deployment schedule, maintenance records to determine number and type of run-ups, times-in-mode, fuel usage records and power settings.

2 Vessels

For vessels, all emissions generated from the shoreline outward to the seaward boundary of the territorial sea (usually 3 miles) within the non-attainment area boundaries must be included in the calculation. To calculate emissions from vessels, assistance is available from the Naval Sea Systems Command (NAVSEASYSCOM).

a. **Methodology.** NAVSEASYSCOM is developing the Navy Engine Emissions Calculator (EEC) that will estimate vessel emissions for use in EISs and Conformity Determinations. The user will select the ship, boat or craft from a pull-down menu, inputs the operating data and the program will use this information to select the appropriate engines, determine the ship/engine operating profile and calculate the emissions. The program will generate a report showing the emissions of NO_x, SO_x, CO₂, CO, HC and PM for each ship and the total for all of the ships considered in the analysis.

The program will be accessible via the Internet and should be used for estimating vessel emissions once it is available. Until the program is available, NAVSEASYSCOM should be contacted for assistance in calculating vessel emissions.

b. **Data Sources.** Data required for calculating vessel emissions are the vessel types and the operating data for the time each vessel operates within the boundary of concern.

3 Motor Vehicles

Motor vehicles generate two primary types of emissions, exhaust and evaporative. Exhaust emissions occur only when the vehicle is operating, during either the start or the stabilized running mode. Evaporative emissions consist of organic gases (a portion of which are VOCs) and occur when fuel evaporates from the storage and delivery system. Although the rate varies with the operating mode, this evaporation occurs whether or not the vehicle is in operation.

3.1 Privately Owned Vehicles (POVs)

a. **Methodology.** As discussed earlier, for POVs only those motor vehicle emissions associated with base personnel commuting to and from work should be included in the emissions calculations. Motor vehicle use for shopping trips and other errands are not emissions the Federal agency can control. The calculation should assume that each employee makes a total of two commute trips per day (one to and one from the base), with adjustments made to reflect actual average vehicle occupancy rates for that installation taking into account any locally required vehicle ridership requirements. Any adjustments should be based on the installation's employee trip reduction plan or other documentation on file with the regulating agency. The source for the adjustments should be referenced with the calculation. Worker trip estimates from other sources or installation trip counts conducted for other purposes should not be used to generate the number of employee trips. The calculation should assume that Federal employee work commutes occur 240 days per year, unless special circumstances dictate some other number (e.g., a compressed work schedule in effect at the installation).

The following steps should be taken to calculate the emissions. All basic data and assumptions should be included on the calculation sheets or program printouts.

- (1) Determine the change in personnel loading associated with the action
- (2) Determine the number of workdays for the installation (usually 240 days per year)
- (3) Calculate the number of commute trips per day (number of personnel times two divided by the average vehicle occupancy rate)
- (4) Estimate the average vehicle trip length and speed
- (5) Determine the average summer and wintertime temperatures for the area
- (6) Estimate the vehicle population mix
- (7) Determine whether vehicles commuting to the installation are subject to an inspection and maintenance (I/M) program
- (8) Use the most current version of the motor vehicle emissions model specified by EPA and available for preparing or revising the SIP to calculate the total annual POV emissions in tpy

Check with the State or air district to determine whether these emissions must be included in the calculation of total emissions. The State or air district may have already accounted for changes in the installation's vehicle usage in the SIP.

Items to check: How the action is quantified in total numbers of personnel. Consistency with the conformity documentation and other related documents present a real challenge. Actions often change scope over the course of the development of the conformity analysis. Carefully review the calculations

and documentation to ensure that the number of personnel used to calculate the POV emissions is consistent with the personnel migration schedule described in the action. Sources for other information such as the vehicle occupancy rate must be documented. Since related documents such as traffic studies were developed for other purposes, the procedures described above should be used to determine the number of commute trips. Ensure that the standard models and methodologies are used correctly for calculating vehicle emissions. Personnel should contact the State, air district or EPA Regional Office for detailed assistance with models and methodologies.

b. **Data Sources.** Data needed to calculate POV emissions include the change in personnel associated with the action, number of work days, average vehicle occupancy rate, average commute trip length, average speed, estimated vehicle population mix, I/M program requirements applicable to the area in which the installation is located and the average summer and wintertime temperatures. A checklist to be used in summarizing key data and assumptions is provided in Table H-2 and should be included with each analysis.

TABLE H-2 CHECKLIST FOR DATA REQUIRED FOR POV CALCULATIONS

<p>1. Change in personnel loading associated with the action _____ Source: _____</p> <p>2. Number of work days (usually 240 days per year – document if a different number is used) _____</p> <p>3. Average Vehicle Occupancy Rate _____ Source: _____</p> <p>4. Number of commute trips per day (number of personnel times two divided by the average vehicle occupancy rate) _____</p> <p>5. Average one-way vehicle trip length in miles (estimate based on primary housing locations and average number of personnel living on/off-base) _____</p> <p>6. Estimated vehicle population mix (% of total for each vehicle type) Light-duty autos _____ Light-duty trucks _____ Motorcycles _____</p> <p>7. Average vehicle speed in mph (estimate based on average speed limits on roads between installation and primary housing locations) _____</p> <p>8. Average temperatures Summer: _____ Winter: _____</p> <p>9. Are vehicles commuting to the installation subject to an inspection and maintenance (I/M) program? _____ If yes, what level? _____</p> <p>10. Name and version number of model used to calculate POV emissions: _____</p> <p>11. Include both a sample input and an output file printout with your analysis.</p>

3.2 Government-Owned Vehicles (GOVs)

a. **Methodology.** The procedures for calculating emissions from GOVs vary from the procedures for POVs because generally all of the miles driven by the GOVs are included in the calculation, unless the number of miles driven outside the air basin is known. Also, the vehicle mix does not have to be estimated because it can be determined from the fleet inventory.

The following steps should be taken to calculate the emissions. All basic data and assumptions should be included on the calculation sheets or program printouts:

- (1) Obtain the inventory of fleet vehicles associated with the action; the inventory should include the number, fuel type, model year and mileage for each vehicle
- (2) Calculate the average annual mileage for each vehicle by dividing its total mileage by its age
- (3) Determine the total annual vehicle miles traveled (VMT) for each vehicle type
- (4) Determine the average vehicle speed (usually the installation speed limit)
- (5) Determine the average summer and wintertime temperatures for the area
- (6) Determine whether the fleet vehicles are subject to an inspection and maintenance (I/M) program
- (7) Use the most current version of the motor vehicle emissions model specified by EPA and available for preparing or revising the SIP to calculate the total annual GOV emissions in tpy

Items to check: Check with the State or air district to determine whether these emissions must be included in the calculation of total emissions. The State or air district may have already accounted for changes in the installation's vehicle usage in the SIP. Carefully review the calculations and documentation to ensure that the number of GOV used to calculate the emissions is consistent with the migration schedule described in the action. Ensure that the standard models and methodologies are used correctly for calculating vehicle emissions. Personnel should contact the State, air district or EPA Regional Office for detailed assistance with models and methodologies.

b. **Data Sources.** The data needed to calculate GOV emissions include the fleet inventory and mileage, average speed and average summer and wintertime temperatures. A checklist to be used in summarizing key data and assumptions is provided in Table H-3 and should be included with each analysis.

TABLE H-3 CHECKLIST FOR DATA REQUIRED FOR GOV CALCULATIONS

<ol style="list-style-type: none">1. Annual VMT for each vehicle type Heavy-duty trucks _____ Medium-duty trucks _____ Light-duty autos _____ Light-duty trucks _____ Motorcycles _____2. Average vehicle speed in mph (usually the average installation speed limit; indicate if an alternative number is used such as a lower number for heavy-duty trucks due to their mode of operation) _____3. Average temperatures Summer: _____ Winter: _____4. Are vehicles used at the installation subject to an inspection and maintenance (I/M) program? _____ If yes, what level? _____5. Name and version number of model used to calculate GOV emissions: _____6. Include both a sample input and an output file printout with your analysis.
--

4 Non-road Engines and Vehicles

Non-road sources include motorized vehicles and equipment that are normally not operated on public roadways to provide transportation.

a. **Methodology.** The basic methodology for calculating emissions from non-road engines and vehicles is to take the product of the equipment population, the usage rate and an emission factor. Emission factors are defined as the average emissions of each pollutant per unit of use (hours of operation or quantity of fuel used) for each category of equipment and are dependent on the type of fuel used.

The emission factor used should be selected based on the best information available and should be consistent with the activity rate. For equipment for which an emission factor is not specifically defined, an emission factor for a similar category of equipment or for a miscellaneous category should be used. The reference for the emission factors and all assumptions must be documented.

The following steps should be taken to calculate the emissions. All basic data and assumptions should be included on the calculation sheets. See the format provided in Table H-4.

- (1) Obtain the inventory of non-road equipment associated with the action
- (2) Determine the most appropriate emission factor from EPA's Compilation of Air Pollutant
- (3) Emission Factors (AP-42) (Note: other emission factors from recognized sources may be used but EPA must approve them. Factors from EPA's Non-road Engine and Vehicle Emission Study Report are often used. Document the sources for all emission factors used in the analysis.)
- (4) Calculate the total annual emissions in tons per year (tpy) for each type of equipment by taking the product of the population, usage and emission factor. If enough information is known, the best method for calculating emissions is on the basis of "brake specific" emission factors (g/kW-hr or g/hp-hr).
- (5) Emissions are calculated by taking the product of the brake specific emission factor, the usage in hours, the power available (i.e., rated power) and the load factor (power actually used divided by the power available).

Items to check: Determine whether a particular item is considered a mobile source subject to the conformity requirements or a stationary source that is permitted and thus exempt from the conformity rule. Avoid incorrect categorization of vehicles and construction equipment as GSE, which can result in the use of incorrect emission factors. Ensure that "pooled" equipment is not attributed to multiple squadrons to avoid double counting.

b. **Data Sources.** The data needed to calculate the emissions are the equipment inventory, which should include the equipment population, fuel type, power rating and annual usage. Check the Conformity website for the latest references and test reports:
<http://www.denix.osd.mil/denix/DOD/Working/CAASSC/policy.html>

Table H-4 SAMPLE FORMAT FOR NONROAD ENGINE EMISSION CALCULATIONS

Equipment Type	Emission Factor Source ¹	Fuel Type	No. Units	Hp	Op Hours per Unit	Load Factor	Emission Factor (g/hp-hr)					Total Emissions (tpy)							
							HC	NOx	CO	SO2	PM10	HC	NOx	CO	SO2	PM10			
Total Annual Non-road Emissions																			

Notes: 1) Include corresponding equipment type if the emission factor used is for a different item of equipment than the type specified.

5 Construction Phase Emissions

In calculating the construction phase emissions, the total net combined emissions must be established separately for (1) each year of construction; (2) for each year that construction and operations overlap; and (3) for the first full year the proposed action is operating at "full-build out." Typically it can be assumed that a "full-build out" operational level would be consistent throughout subsequent years. If it is expected that a year will be different, analyze any such years also. Emissions may change during various stages of a construction project; each stage should be separately analyzed including the quarter in which it occurs.

Emissions associated with construction operations result from two different types of sources: the actual operation of the equipment, which generates emissions of all criteria pollutants, and the fugitive dust emissions of particulate matter generated by the disturbance of the soil. Because the methodologies for calculating emissions for these two source types vary greatly, they will be addressed separately.

5.1 Construction Equipment

a. **Methodology.** The methodology for calculating construction equipment emissions is the same as for other non-road engines and vehicles as discussed earlier.

Items to check: The actual Military Construction (MILCON) schedule and the most appropriate emission factors given the equipment type and fuel type and operating rate should be used rather than estimates.

b. **Data Sources.** The MILCON schedule for the project should provide all of the data required to calculate the emissions from the construction equipment, including the quantity of each type of equipment, the projected usage of each item per month and the duration of each phase of the project.

5.2 Fugitive Dust

a. **Methodology.** The quantity of dust emissions from construction operations is proportional to the area of land being worked and to the level of construction activity. Section 13.2.3 (Heavy Construction Operations) of AP-42, Volume I (NOTAL), provides an emission factor of 1.2 tons per acre per month of activity based on the assumption that construction activity occurs 30 days per month. This factor is based on field measurements of total suspended particulate (TSP) concentrations surrounding apartment and shopping center construction projects and is most applicable to construction operations with medium activity level, moderate silt content and semiarid climate. The fugitive dust calculations may be further refined by adjusting for the actual percentage of TSP that is attributable to PM10, by taking credit for dust control measures or adjusting for variations in silt content of the soil. Any refinements, however, must be based on sound engineering judgment and must be thoroughly documented.

Items to check: Make sure that the analysis identifies the type of dust control measures and the effectiveness of the program when taking credit for a dust control program.

b. **Data Sources.** The MILCON schedule should provide all information necessary to determine the level and duration of construction activity.

TAB I

REFERENCES

1. General Conformity Provision of the Clean Air Act, 42 U.S.C. 7601(C); Determining Conformity of General Federal Actions to State or Federal Implementation Plans, 40 CFR Parts 51 and 93.
2. National Environmental Policy Act, 42 U.S.C. 4321.
3. Compilation of Air Pollutant Emission Factors (AP-42), Volume II, Mobile Sources, U.S.EPA, 1985, as updated by Supplement A, 1991.
4. Non-road Engine and Vehicle Emission Study Report, EPA-21A-2001, U.S. EPA, Office of Mobile Sources and Office of Air & Radiation, November 1991.
5. Procedures for Emission Inventory Preparation, Volume IV, Mobile Sources, EPA-450/4-81-026d (Revised), U.S. EPA, Office of Mobile Sources and Office of Air Quality Planning and Standards, 1992.
6. Methodology For Estimating Emissions From On-Road Motor Vehicles, California Air Resources Board, Technical Support Division, Mobile Source Emission Inventory Branch, October 1996.
7. California Environmental Quality Act (CEQA) Air Quality Handbook, South Coast Air Quality Management District, April 1993.
8. Clean Air Act Services Steering Committee Website,
<https://www.denix.osd.mil/denix/DOD/Working/CAASSC/caassc.html>