



Environmental Handbook

Air Quality

This handbook outlines the process steps necessary to comply with the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Federal-Aid Highways code in regards to potential project effects on air quality.

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1.0 Overview

This handbook outlines the process steps necessary to comply with the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Federal-Aid Highways code in regards to potential project effects on air quality. Project sponsors can use the handbook to identify what air quality compliance obligations may be triggered by their project in order to scope them appropriately. Anyone with responsibility for developing compliance documentation can use the handbook to identify the general requirements to meet these obligations.

At the federal level, the Environmental Protection Agency (EPA) is responsible for the regulation and enforcement of the CAA requirements. The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) are responsible for the regulation and enforcement of NEPA and the Federal-Aid Highways code for projects under their jurisdiction.

At the state level, the Texas Commission on Environmental Quality (TCEQ) is responsible for the regulation and enforcement of the Texas Clean Air Act (TCAA), which gives them the responsibility for developing the State Implementation Plan (SIP) required by the federal CAA and gives them the authority to establish more stringent air quality standards for Texas. TCEQ has chosen, however, to have their air quality standards mirror EPA's National Ambient Air Quality Standards (NAAQS). Metropolitan Planning Organizations (MPOs) have responsibility for regional transportation conformity analyses and compliance with the Federal-Aid Highways code in regards to Congestion Management Process (CMP) requirements. The Texas Department of Transportation (TxDOT) is the state agency with responsibility for helping project sponsors of transportation projects in the state with ensuring compliance with all applicable federal, state, and local laws and regulations; including the CAA, NEPA, and the Federal-Aid Highways code.

1.1 TxDOT Policy

It is TxDOT's policy to meet its compliance obligations regarding potential project effects on air quality by following the procedures in this manual, the air quality toolkit, and the Memorandum of Understanding (MOU) with the TCEQ.

1.2 Important Definitions

While a set of definitions for terms used in this handbook is provided in the Glossary (Section 10), some important terms are also defined here to provide context for the subsequent explanation.

Conformity is the process of determining that federal actions, such as transportation projects, conform to the SIP. FHWA/FTA projects and regionally significant State-only projects must comply with transportation conformity requirements, whereas, other federal agency (e.g., the Surface Transportation Board (STB) or the Federal Railroad Administration (FRA)) actions must comply with general conformity requirements.

The **Consultation Partners** are a group of federal, state, and local agencies which provide for direction and review of conformity demonstrations for transportation plans, programs, and projects. The agencies include but are not necessarily limited to the EPA, FHWA, FTA, TCEQ, TxDOT, and the MPO. The **Criteria Pollutants** as established by the CAA include ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (PM), and lead.

A **Maintenance Area (MA)** is an area that was formerly designated by EPA as being in nonattainment for the NAAQS for a specific criteria pollutant but has since achieved compliance with

the applicable standard and been re-designated as being in attainment-maintenance status. An attainment-maintenance area must maintain compliance with that specific NAAQS for up to two ten-year periods.

A **National Ambient Air Quality Standard** is the official standard EPA sets for one its identified criteria pollutants. There are both primary and secondary NAAQS established for protection of human health and the environment, respectively.

A **Nonattainment Area (NA)** is an area that is currently designated by EPA as being in nonattainment for the specific NAAQS criteria pollutant.

1.3 Responsible Party

The Project Sponsor has responsibility for:

- Documenting project compliance with the CAA, NEPA, and the Federal-Aid Highways code, as applicable, in regards to transportation air quality requirements,
- Initiating, directing, and documenting interagency coordination on potential qualitative and quantitative air quality analyses and,
- Performing required air quality analyses and documenting them appropriately.

The Department Delegate has responsibility for coordination of environmental documents with TCEQ, when such coordination is required by the applicable MOU.

The MPO has responsibility for development and implementation of a CMP and preparing transportation conformity demonstrations for plans and programs when applicable.

The Consultation Partners have responsibility for providing direction and review for transportation conformity determinations for transportation plans, programs, and projects.

FHWA, acting as Executive Agent for FTA, has responsibility for making all final transportation conformity determinations for plans and programs.

1.4 Applicable Project Types

All transportation projects require consideration of the project effects on air quality.

1.5 Critical Sequencing

Review and coordination of potential project effects on air quality must be completed prior to the final project decision or approval.

All projects for which conformity applies must be found to conform prior to the environmental decision or approval.

Interagency coordination for quantitative air quality analyses, when required, should occur before initiating the applicable analyses and before submission of the applicable environmental documents.

If the project requires a public hearing, all required quantitative air quality analyses should be completed and reviewed in sufficient time for the results to be presented at the hearing; unless, in the case of a Draft Environmental Impact Statement (DEIS), approval has been granted after appropriate coordination with the lead agency to defer the analysis until the Final Environmental Impact Statement (FEIS).

1.6 Helpful Suggestions

Ensuring a project's consistency with the applicable Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP) throughout the project life-cycle (including for MTP and TIP updates, funding and timing changes, and project design concept and scope changes) will help to prevent possible conformity related delays later in the environmental clearance process.

For projects where a quantitative air quality analysis is required, the preparation of a preliminary technical report for review by TxDOT's Environmental Affairs Division (ENV) air specialist is required.

Decisions of the Consultation Partners in regard to hot-spot analyses require public involvement, which may and should be combined with NEPA public involvement activities. Under unique circumstances, public involvement for a hot-spot analysis may be conducted separate from NEPA and must meet requirements in the federal and state conformity rules applicable at the time of public involvement.

2.0 Regulatory Overview

2.1 Clean Air Act

The CAA is codified at 42 United States Code (USC) 7401-7671q, and the statute pertains to transportation conformity and to general conformity. [Section 7506\(c\)](#) prohibits federal agencies from providing funding or approving any activity that does not conform to an applicable SIP. It also prohibits MPOs from giving their approval to any "project, program, or plan" that does not conform to a SIP. A SIP is developed for EPA designated nonattainment or maintenance areas (NA/MA) of the state and is combined into a statewide SIP. Attainment areas are exempt from conformity requirements.

2.1.1 Transportation Conformity

The transportation conformity requirement is substantive, and the Code of Federal Regulations (CFR) provides the implementing regulations in [Subpart A of 40 CFR 93](#). State transportation conformity rules, which largely address the conformity consultation process in Texas, are codified in the Texas Administrative Code (TAC) at [30 TAC 114.260](#). Transportation conformity only applies to projects in a NA/MA for ozone, CO, NO₂, or PM because these are considered transportation related pollutants ([40 CFR 93.102\(b\)\(1\)](#)).

Transportation conformity applies to both FHWA/FTA projects ([40 CFR 93.102\(a\)\(1\)\(iii\)](#)) and to non-federal transportation projects if they are considered "regionally significant" by the MPO ([40 CFR 93.102\(a\)\(2\)](#)). Transportation conformity encompasses both regional conformity (i.e., conformity of plans and programs) and project level conformity.

The Consultation Partners have responsibility for providing direction and review for conformity demonstrations for transportation plans, programs, and projects (specifically when hot-spot requirements apply). The MPO will make an initial conformity determination on their transportation plans and programs, while FHWA makes the final conformity determination (acting as Executive Agent for FTA). For FHWA/FTA projects subject to conformity, a separate project-level conformity determination by the lead federal agency is also required prior to making the environmental decision. A project level conformity determination also incorporates applicable hot-spot decisions and analyses for the project.

For projects in which transportation conformity applies, an environmental decision CANNOT legally be made until it has been demonstrated that project level conformity requirements have been met.

2.1.2 General Conformity

General conformity requirements apply to non-FHWA/FTA federal transportation projects (e.g., STB or FRA) if they are located within a NA/MA for any of the NAAQS. General conformity requirements may also apply to certain FHWA/FTA project activities that are not otherwise covered under transportation conformity (e.g., certain recreational trails projects). These requirements are codified in [Subpart B of 40 CFR 93](#). Each federal agency will have its own guidance on how to address air quality, but this is beyond the scope of this handbook. Consult the ENV air specialist if general conformity requirements may apply.

2.2 National Environmental Policy Act

NEPA establishes procedural requirements and is codified at [42 USC 4321-4370\(h\)](#). NEPA is the impetus for the CO Traffic Air Quality Analysis (TAQA), the Mobile Source Air Toxics (MSAT) analysis, and construction emissions disclosure. [42 USC 4332](#) requires that all “major federal actions significantly affecting the quality of the human environment” shall include a “detailed statement” on “the environmental impact of the proposed action.”

FHWA/FTA uses guidance, rather than rule, to establish the requirements for the CO TAQA, construction emissions, and the MSAT analysis under NEPA. FHWA/FTA specifically requires the CO TAQA and air quality construction emissions in their guidance document titled [FHWA Technical Advisory T 6640.8A](#). FHWA/FTA specifically requires and establishes criteria for the level of MSAT analysis in their latest interim [MSAT guidance](#) document.

2.3 Federal Aid Highways Code

The Federal Aid Highways code establishes substantive requirements regarding the CMP and is codified at [23 USC 101-190](#), and encompasses the CMP requirements. The applicable portions of the statute are from [23 USC 134\(k\)\(3\) and 134\(m\)](#). The implementing regulations are provided at [23 CFR 450.320](#).

In order for federal funds to be programmed for projects adding Single Occupancy Vehicle (SOV) capacity in certain nonattainment areas, the project must be addressed in a CMP. These projects must come from a CMP which includes an analysis of reasonable travel demand reduction and operational management strategies for the corridor. In addition, “all identified reasonable travel demand reduction and operational management strategies shall be incorporated into the SOV project or committed to by the State and MPO for implementation.”

2.4 TCEQ MOU

The TCEQ MOU is a procedural requirement codified at [Section 201.607](#) of the Texas Transportation Code. The MOU is located in rule at [43 TAC 2.301](#).

The MOU describes what project documents will be coordinated with TCEQ for either air quality or water quality reviews. Specifically, the MOU coordination requirements with regards to air quality will be discussed in this chapter.

2.5 Compliance Paths

The following are paths to compliance with the air quality standards for a transportation project. No matter which compliance path is followed, any analysis results and consultative efforts should be retained in the project file.

2.5.1 CAA Compliance

In regards to transportation conformity requirements, at the time of project decision, a project must have been found to be either:

- Exempt from transportation conformity requirements in accordance with Section 6.1 of this handbook, or
- It must be consistent with the conformity determination of the applicable MTP and TIP, as evidenced by an appropriately signed conformity report form. Appropriately signed means by the lead federal agency, or by the ENV air specialist for state-only projects.

In regards to hot-spot conformity requirements, a project must:

- Be exempt from hot-spot conformity requirements in accordance with Section 6.1 of this handbook, or
- Have a Consultation Partner determination that this is NOT a “project of air quality concern” and the decision receives appropriate public involvement; or
- Have a Consultation Partner determination that this is a “project of air quality concern”, and have a hot-spot analysis prepared by the project sponsor using the analysis approved by the Consultation Partners.

The hot-spot analysis must also validate one of the following:

- That the project’s modeled concentrations (when combined with background concentrations) will not exceed the applicable NAAQS in the future years analyzed; or
- The project’s modeled concentrations (after accounting for background concentrations and any committed mitigation measures) will be less than the no-build scenario’s modeled concentrations in the future years analyzed.

In regards to general conformity requirements, at the time of project decision, a project must:

- Be exempt from general conformity requirements in accordance with Section 6.1 of this handbook, or
- Have an analysis which demonstrates the project emissions will be less than de minimis thresholds, or
- Have a conformity determination from the lead federal agency, with any applicable supporting analyses.

2.5.2 NEPA Compliance

In regards to CO TAQA requirements, a project must either:

- Be exempt from CO TAQA requirements in accordance with Section 6.2 of this handbook; or
- Have a CO TAQA prepared which demonstrates that the project’s modeled CO emissions (including the area’s background CO concentration) will not exceed the applicable CO NAAQS in either the project completion year or design year.

In regards to MSAT requirements, a project must:

- Be exempt from a MSAT analysis per Section 6.2 of this handbook; or
- Have a qualitative MSAT analysis prepared, which identifies the national MSAT emission trends; or
- Have a quantitative MSAT analysis prepared, which compares the modeled MSAT emission levels in the base year to the modeled MSAT emission levels in the future years analyzed.

In regards to construction emission requirements, a project must simply disclose the potential construction emissions and any project level mitigation being proposed (e.g., dust suppression, Texas Emission Reduction Program (TERP), construction contractor compliance with regulatory requirements).

2.5.3 Federal-Aid Highways Code Compliance

In regards to CMP requirements, a project must:

- Be exempt from CMP requirements in accordance with Section 6.3 of this handbook; or
- The project must come from an MPO's adopted CMP and an analysis prepared which:
- "Identifies travel demand reduction and operational management strategies for the corridor";
- "Demonstrates that [these strategies] cannot fully satisfy the need for additional capacity"; and
- "Identifies that all reasonable travel demand reduction and operational management strategies shall be incorporated into the SOV project or committed to by the State and MPO for implementation".

2.5.4 TCEQ MOU Compliance

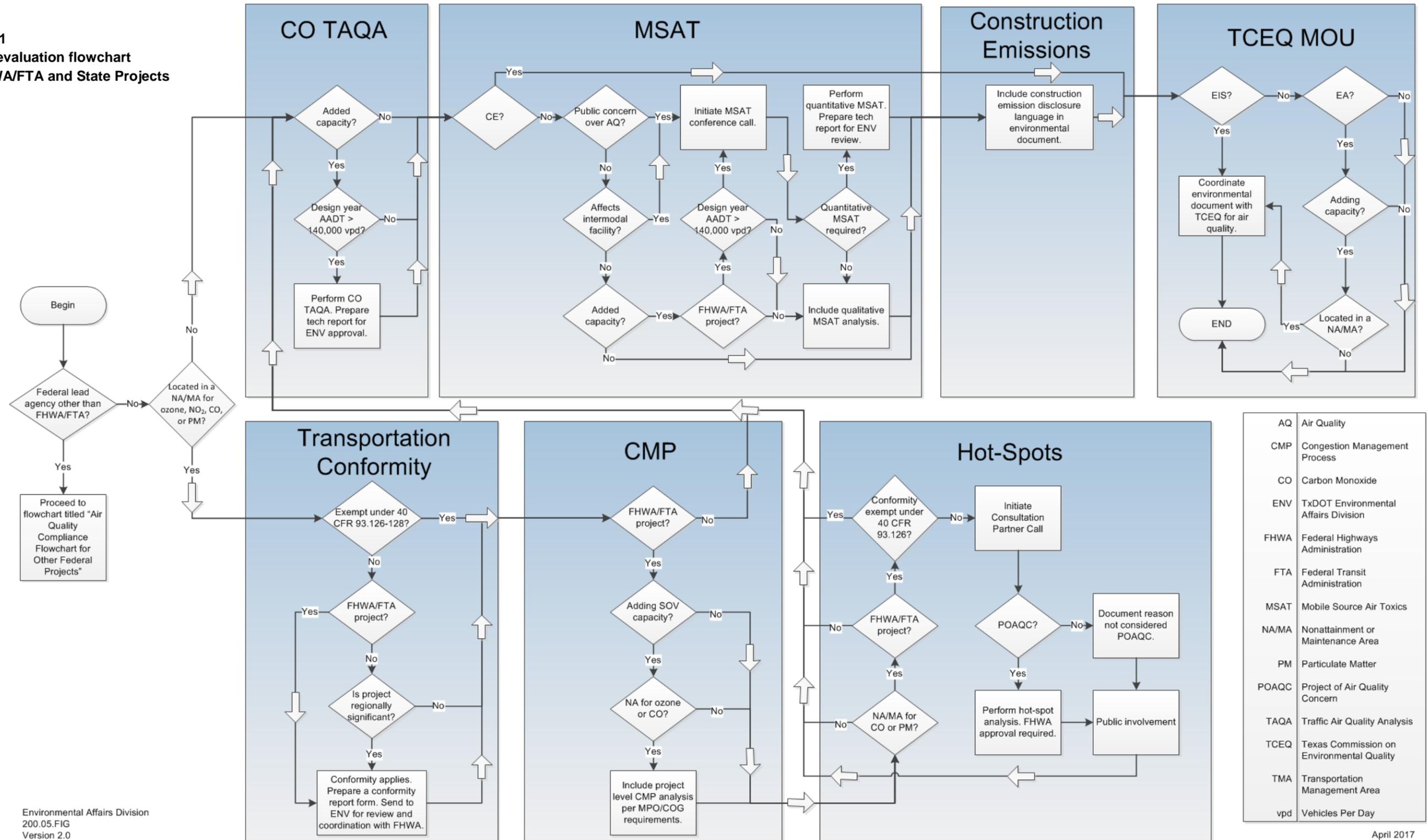
In regards to TCEQ MOU requirements, a project must:

- Be exempt from TCEQ MOU review requirements in accordance with Section 6.4 of this handbook; or
- The applicable environmental review document or air quality technical report in lieu of the environmental review document will need to be coordinated with TCEQ.



Air Quality Compliance Flowchart for FHWA/FTA and State-only Projects

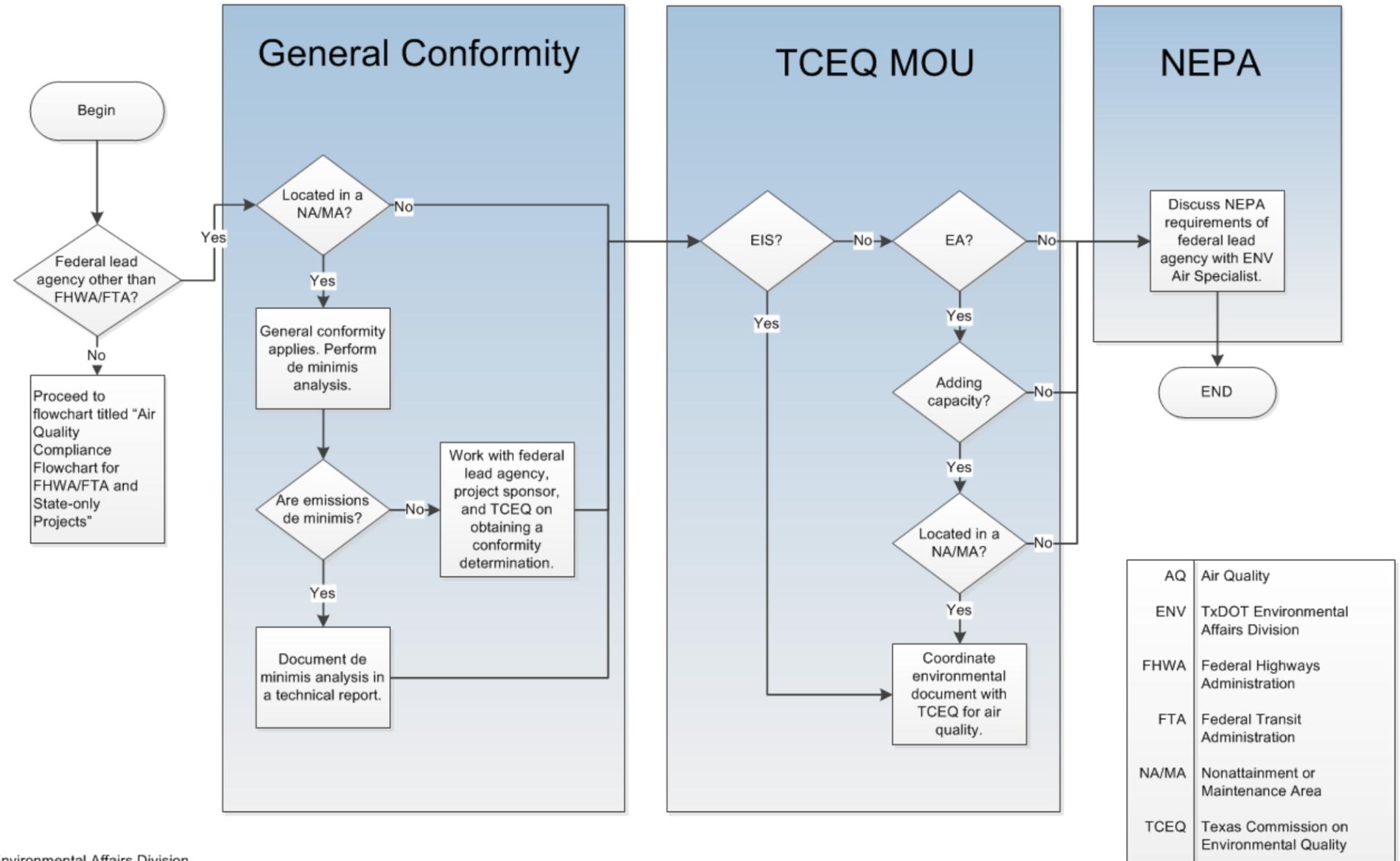
Figures 1
Project evaluation flowchart
for FHWA/FTA and State Projects



Figures 2
Project evaluation flowchart for other federal projects



Air Quality Compliance Flowchart for Other Federal Projects*



Environmental Affairs Division
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*Other federal projects means projects with a federal lead other than FHWA or FTA

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AQ	Air Quality
ENV	TxDOT Environmental Affairs Division
FHWA	Federal Highways Administration
FTA	Federal Transit Administration
NA/MA	Nonattainment or Maintenance Area
TCEQ	Texas Commission on Environmental Quality

3.0 Procedural Requirements

The procedural requirements outlined below were developed by TxDOT to help practitioners conduct air quality analyses and prepare documentation in accordance with the procedures developed by the EPA, FHWA/FTA, and TxDOT. These are the general steps for complying with the applicable rule and guidance for the air quality resource. However, not every step will be required for every project. Proceed step by step through the following process.

Please note that the air quality toolkit will provide more detailed information on how to comply with each of these topics, including coordination and documentation requirements.

1. Identify the general procedures for complying with CAA conformity requirements by completing Steps 1.1 through 1.6 as directed.
 - 1.1 Determine whether the project is exempt from transportation conformity requirements per Section 6.1 of this handbook. If so, continue to Step 1.2. If not, proceed to Step 1.3.
 - 1.2 Determine whether the project is exempt from general conformity requirements per Section 6.1 of this handbook. If so, proceed to Step 3. If not, consult with the ENV air specialist regarding how to address potential general conformity requirements and proceed to Step 3.
 - 1.3 Determine whether the project is exempt from hot-spot requirements per Section 6.1 of this handbook. If so, continue to Step 1.4. If not, proceed to Step 2.
 - 1.4 Prepare a conformity report for the project. Continue to Step 1.5.
 - 1.5 Coordinate the conformity report with FHWA/FTA at least 60 days prior to project decision or approval. Continue to Step 1.6.
 - 1.6 Maintain the final approved conformity report in the project file. Proceed to Step 3.
2. Identify the general procedures for complying with CAA hot-spot requirements by completing Steps 2.1 through 2.7 as directed.
 - 2.1 Initiate coordination with the Consultation Partners to have them make a determination as to whether this is a “project of air quality concern”. Continue to Step 2.2.
 - 2.2 Identify whether the Consultation Partners determined that this is a “project of air quality concern”. If so, continue to Step 2.3. If not, proceed to Step 1.4.
 - 2.3 Initiate additional coordination with the Consultation Partners to identify an appropriate methodology and parameters for a hot-spot analysis. Continue to Step 2.4.
 - 2.4 Perform the applicable hot-spot analysis and prepare a hot-spot technical report. Continue to Step 2.5.
 - 2.5 Based on the results of the hot-spot analysis, determine if any mitigation measures are required. The project sponsor must provide a written commitment to any agreed upon mitigation measures. Continue to Step 2.6.
 - 2.6 Coordinate the hot-spot technical report with the Consultation Partners for their review and for a FHWA decision. Once the report is approved, continue to Step 2.7.
 - 2.7 Maintain the hot-spot technical report in the project file. Proceed to Step 1.4.
3. Determine whether a CO TAQA is required by completing Steps 3.1 through 3.4 as directed.

- 3.1 Determine whether the project is exempt from CO TAQA requirements per Section 6.2 of this handbook. If so, proceed to Step 4. If not, continue to Step 3.2.
- 3.2 Prepare a CO TAQA technical report. Continue to Step 3.3.
- 3.3 Send the CO TAQA technical report to the ENV air specialist for review. Continue to Step 3.4.
- 3.4 Maintain the approved CO TAQA in the project-file. Continue to Step 4.
4. Determine whether a MSAT analysis is required by completing Steps 4.1 through 4.8 as directed.
 - 4.1 Determine whether the project is exempt from MSAT requirements per Section 6.2 of this handbook. If so, proceed to Step 5. If not, continue to Step 4.2.
 - 4.2 Determine whether the project is a FHWA/FTA project. If so, continue to Step 4.3. If not, proceed to Step 4.8.
 - 4.3 Determine whether the project will trigger MSAT coordination per Section 5.2 of this handbook. If so, continue to Step 4.4. If not, proceed to Step 4.8.
 - 4.4 Initiate a MSAT conference call to receive a determination as to whether a quantitative MSAT analysis is required. If required, continue to Step 4.5. If not required, proceed to Step 4.8.
 - 4.5 Prepare a quantitative MSAT analysis technical report. Continue to Step 4.6.
 - 4.6 Send the quantitative MSAT analysis technical report to the ENV air specialist for review. Continue to Step 4.7.
 - 4.7 Maintain the approved quantitative MSAT technical report in the project file. Continue to Step 5.
 - 4.8 Include the qualitative MSAT analysis in the project file. Continue to Step 5.
5. Determine whether a CMP analysis is required by completing Steps 5.1 through 5.3 as directed.
 - 5.1 Determine whether the project is exempt from CMP requirements per Section 6.3 of this handbook. If so, proceed to Step 6. If not, continue to Step 5.2.
 - 5.2 Verify that the project comes from the MPO's adopted CMP. Continue to Step 5.3.
 - 5.3 Identify and document any travel demand reduction strategies and operational management strategies for the corridor. Continue to Step 5.4.
 - 5.4 Identify and document any reasonable travel demand reduction and operational management strategies that shall be incorporated into this specific project. Continue to Step 6.
6. Prepare the air quality finding statements for inclusion in the project file or environmental review documents. Continue to Step 7.
7. Determine whether the environmental review document requires coordination with TCEQ by completing Steps 7.1 through 7.2 as directed.
 - 7.1 Determine whether the project is exempt from TCEQ MOU requirements per Section 6.4 of this handbook. If so, proceed to Step 8. If not, continue to Step 7.2.
 - 7.2 Verify that TxDOT will coordinate the environmental review document with TCEQ after ENV review.

8. Coordinate with the ENV air specialist on any substantive or critical air quality comments received regarding the environmental review document.

The procedure is complete.

4.0 Project Scoping and Planning

This section provides information on air quality compliance risks associated with a project and how these risks are incorporated into the scoping process.

4.1 Evaluating Risk

Use this manual and the associated air quality toolkit to identify the general air quality risks associated with projects.

- If transportation conformity is a project risk, ensure that the project is and remains consistent with the applicable MTP and TIP throughout the project's life-cycle. If not consistent, work with the District and the MPO on amending the plans appropriately. A conformity report will need to be coordinated with FHWA in order to receive a project-level conformity determination. Final action (environmental document and/or project authorization) cannot be taken on a project for which conformity applies until a project-level conformity determination has been made by FHWA.
- If a hot-spot analysis is a project risk, the analysis must only be prepared after the applicable Consultation Partners coordination. The Consultation Partners must approve the analysis methodology, while FHWA must approve the hot-spot analysis.
- A quantitative MSAT analysis uses the MPO's Travel Demand Model (TDM), so the project will need to be consistent with the MTP and TDM before the analysis can be performed.

4.2 Project Scoping

Use this manual and the associated air quality toolkit to identify the general air quality risks associated with projects.

NOTE: The air quality toolkit includes additional detail on applicable coordination requirements, content of quantitative air quality analyses, and additional resources which will help the project sponsor incorporate air quality activities into the project schedule.

In terms of the timing of air quality activities:

- A conformity report form should be coordinated at least sixty days prior to an environmental decision. Maintaining consistency of the project to the plans (MTP and TIP) during plan updates and after project design, cost, or schedule changes is key to maintaining project conformity. Consult with the local district and MPO if consistency concerns arise.
- The quantitative MSAT analysis must have the appropriate MSAT consultation prior to initiation of the analysis. In addition, a quantitative MSAT analysis uses the MPO's TDM, so the project will need to be consistent with the MTP and TDM before the analysis can be performed.

- A potential hot-spot analysis must have appropriate Consultation Partner coordination prior to initiation of the analysis. Detailed traffic information, project maps, and schematics will be necessary for the Consultation Partners to make a determination regarding applicability of a hot-spot analysis for the project. The Consultation Partners must approve the analysis methodology, while FHWA must approve the hot-spot analysis.

5.0 Requirement Triggers

The following are triggers for when a project would be subject to air quality compliance under the various applicable statutes.

5.1 CAA Triggers

- Transportation conformity applies if the project is NOT exempt in accordance with Section 6.1 of this handbook.
- Coordination with the Consultation Partners is required if the project is NOT exempt from the hot-spot requirements in accordance with Section 6.1 of this handbook.
- A hot-spot analysis is required for projects that are NOT exempt from hot-spot requirements in accordance with Section 6.1 of this handbook if the Consultation Partners have made the determination that it is a “project of air quality concern”.
- General conformity applies if the project is NOT exempt in accordance with Section 6.1 of this handbook.

5.2 NEPA Triggers

- A CO TAQA is required if the project is NOT exempt in accordance with Section 6.2 of this handbook.
- MSAT consultation is required if the project is NOT exempt from an MSAT analysis in accordance with Section 6.2 of this handbook and any of the following apply:
 - ♦ The project is adding capacity and has an Annual Average Daily Traffic (AADT) greater than the 140,000 vehicles per day, or
 - ♦ The project affects or is affected by an intermodal facility or another facility which may be a large generator of diesel traffic, or
 - ♦ The public has expressed air quality concerns specifically about this project (the consultation process would assess if the public concerns would be addressed by conducting a quantitative MSAT analysis).
- A qualitative MSAT analysis is required if the project is NOT exempt from an MSAT analysis in accordance with Section 6.2 of this handbook and:
 - ♦ The project does not trigger MSAT coordination, or
 - ♦ The project does not otherwise require a quantitative MSAT analysis after MSAT consultation.
- Potential air quality construction emissions must be disclosed at least qualitatively for all projects that will lead to construction.

5.3 Federal-Aid Highways Code Triggers

A CMP analysis is required if the project is NOT exempt in accordance with Section 6.3 of this handbook.

5.4 TCEQ MOU Triggers

TCEQ MOU coordination applies if the project is NOT exempt in accordance with Section 6.4 of this handbook.

6.0 Exemptions

The following are exemptions for when a project would be subject to air quality compliance under the various applicable statutes.

6.1 CAA Exemptions

The following are exempt from transportation conformity requirements:

- Projects in attainment or unclassifiable areas of the State for all NAAQS;
- Projects with a federal lead agency other than FHWA or FTA.
- Projects that are only located in nonattainment or maintenance areas for lead or SO₂;
- Projects of the types identified in [40 CFR 93.126](#) or [93.128](#) (generally only applies to non-added capacity projects); or
- Non-federal projects, if they are NOT considered regionally significant by the MPO.

The following are exempt from hot-spot conformity requirements:

- Projects that are NOT within a NA/MA for CO or PM;
- Non FHWA/FTA projects; or
- Projects of the types identified in [40 CFR 93.126](#) or [93.128](#).

The following are exempt from general conformity requirements:

- Projects in attainment or unclassifiable areas of the State for all NAAQS;
- FHWA/FTA projects for which transportation conformity applies ([40 CFR 93.153\(a\)](#)); or
- Non-federal actions.

6.2 NEPA Exemptions

The following are exempt from the CO TAQA requirements:

- Projects that do NOT add capacity; or
- Projects that do NOT exceed an AADT of 140,000 vehicles per day in the project's estimated time of completion (ETC) and design year;

The following are exempt from MSAT requirements:

- FHWA CE projects ([23 CFR 771.117](#)); or

- Projects of the types listed in [40 CFR 93.126](#); or
- Non-added capacity projects with no meaningful impacts on traffic volumes or vehicle mix.

6.3 Federal-Aid Highways Code Exemptions

The following are exempt from CMP analysis requirements:

- Non-federal projects; or
- Projects that are NOT in a nonattainment area for ozone or CO; or
- Projects that are NOT adding SOV capacity; or
- Projects that are NOT within a Transportation Management Area (TMA).
- Projects that are identified as safety improvements or for the elimination of bottlenecks per [23 CFR 450.320\(d\)](#).

6.4 TCEQ MOU Exemptions

The following are exempt from the TCEQ MOU coordination requirements:

- CE projects; or
- EA projects that are only in attainment or unclassifiable areas; or
- EA projects that are NOT adding capacity.

7.0 Public Involvement and Coordination with Resource Agencies

7.1 CAA

7.1.1 Conformity Consultation Partners Coordination

Texas has developed an interagency consultation process under the State transportation conformity rule [30 TAC 114.260](#). The project sponsor will request that the MPO initiate Consultation Partners coordination when such coordination is triggered in accordance with Section 5.1 of this handbook. The coordination is needed for the Consultation Partners to determine if a project is subject to a hotspot analysis and, if one is needed, to have them concur with the analysis methodologies and to review the final analysis. The Consultation Partners include but are not limited to the MPO, TxDOT District, ENV, TCEQ, FHWA, and EPA.

7.1.2 Hot-Spot Public Involvement Criteria

In regards to the Consultation Partners' decisions regarding potential hot-spot analyses, there are public involvement requirements per [40 CFR 93.105\(e\)](#). This public involvement requirement can and should be combined with and satisfied through NEPA public involvement, if any is planned. If NEPA public involvement is not used, then any conformity public involvement shall be at least equivalent to NEPA public involvement and the appropriate type of public involvement will be determined during the Consultation Partners coordination.

7.2 NEPA

7.2.1 MSAT Conference Call

The project sponsor will have the local TxDOT District initiate this call when such coordination is triggered in accordance with Section 5.2 of this handbook. The participants of the conference call should include personnel from: the TxDOT District, the project sponsor, the ENV air specialist, the contractor, and the MPO. Since NEPA assignment, FHWA no longer participates in this MSAT consultation, Meeting minutes should be prepared by the project sponsor or their contractor following the conference call and distributed to all participants.

7.2.2 Public Involvement Criteria

The CO TAQA, MSAT, and air quality construction emission elements do not have specific public involvement criteria.

7.3 Federal-Aid Highways Code

There are no specific public involvement criteria for project level CMP analyses.

7.4 TCEQ MOU

The Department Delegate will coordinate the applicable environmental documents with TCEQ for air quality reviews, when required. All CE projects are exempt from this coordination; whereas all EIS projects have to be coordinated. Only certain EA projects will need to be coordinated.

8.0 Documentation Requirements

8.1 Environmental Review Documents

The air quality section should be prepared by the project sponsor or their contractor. See the air quality toolkit for more specific guidance on preparing the air quality section of these documents. Using the toolkit should minimize the potential for document revisions.

For projects where no formal NEPA document is prepared, applicable technical reports will document compliance with air quality requirements.

8.2 Technical Reports for Quantitative Air Quality Analyses or Conformity

8.2.1 CO TAQA Technical Report

The CO TAQA technical report should be prepared by the project sponsor or their contractor. The report should compare the modeled CO emissions (including the area's background CO concentration) of the project to the CO NAAQS in both the project completion year and design year and document one of the following:

- That the project's modeled concentrations of CO emissions (when combined with background concentrations) will not exceed the applicable CO NAAQS in the ETC and design years; or
- The project's modeled concentrations, when combined with background concentrations plus emission reductions from mitigation measures, will be less than the applicable CO NAAQS in the ETC and design years.

8.2.2 Quantitative MSAT Analysis Technical Report

The quantitative MSAT technical report should be prepared by the project sponsor or their contractor. The report should assess the future regional concentrations of MSAT compared to the base year concentrations.

8.2.3 Hot-Spot Analysis Technical Report

The hot-spot analysis technical report should be prepared by the project sponsor or their contractor. The report should find one of the following:

- That the project's modeled concentrations of the applicable pollutant emissions (when combined with background concentrations) will not exceed the applicable NAAQS in the applicable future years; or
- That the project's modeled concentrations of the applicable pollutant emissions, when combined with background concentrations, will be less than the no-build scenario's modeled concentrations of the same pollutant emissions in the applicable future years; or
- The project's modeled concentrations, when combined with background concentrations plus emission reductions from mitigation measures, will be less than the no-build scenario's modeled concentrations of the same pollutant emissions in the applicable future years.

8.2.4 Transportation Conformity Report Form

Post NEPA assignment, for projects subject to transportation conformity, a conformity report form shall be prepared by the project sponsor or their contractor. The report should find and document that the project is consistent with the conformity determination for the current MTP and TIP and must receive approval from ENV and/or FHWA, as applicable, by the time of the environmental decision.

8.3 Project File

In regards to air quality, the administrative record should contain the following.

- The transportation conformity report form, if required
- A summary of any interagency consultation that occurred in relation to a quantitative air quality analysis
- Any final air quality technical reports or studies prepared for the project
- If applicable, TCEQ coordination comments and TxDOT's official response

9.0 Review and Approval Process

9.1 Technical Reports

The project sponsor or their designated contractor is responsible for preparing and submitting the applicable technical reports for quantitative air quality analyses or transportation conformity to the ENV air specialist for review. A hot-spot analysis technical report must also be reviewed by the Consultation Partners and approved by FHWA. The Transportation Conformity Report should be submitted at least 60 days prior to the anticipated environmental decision.

After ENV air specialist approval of the technical report, a summary of the analysis can be incorporated into the environmental review document.

9.2 Environmental Review Documents

The project sponsor is responsible for preparing and submitting the applicable environmental review documents to ENV for review.

The Department Delegate will coordinate the environmental review document with TCEQ, after the ENV review is complete, as applicable.

If EPA provides any comments on an environmental review document, these must receive a written response after consulting with ENV.

10.0 Glossary

Conformity is the process of determining that a transportation plan, program, or project conforms to the purpose of the SIP.

Consistency is the process of ensuring that a project is consistent with the applicable transportation plans (MTP & TIP, or Statewide Transportation Improvement Program (STIP)). Although not inherently related to air quality, project consistency with the applicable transportation plans is integral to demonstrating compliance with transportation conformity requirements.

Environmental Decision is either a CE concurrence, a Finding of No Significant Impact (FONSI), or a Record of Decision (ROD).

Mobile Source Air Toxics are compounds that are considered air toxics by EPA and that have been identified as being associated with mobile sources. In the context of transportation projects, it specifically refers to the nine primary mobile source air toxics: acetaldehyde, acrolein, benzene, 1,3-butadiene, diesel particulate matter plus diesel exhaust organic gases (diesel PM), ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter.

National Ambient Air Quality Standards are the national standards developed by EPA for the six criteria pollutants identified in the CAA. The EPA, in conjunction with state air quality agencies, has established a network of air monitors throughout the nation which monitor for these criteria pollutants. Exceedances of these NAAQS can result in the EPA designating an area in non-attainment for that specific criteria pollutant.

Quantitative Air Quality Analyses may include a CO TAQA, Quantitative MSAT, or Hot-spot Analysis.

A **regionally significant State-only project** is one that is considered regionally significant in the conforming MTP but has no FHWA/FTA funding or action (e.g., interstate access justification).

The **State Implementation Plan** is the State's overall air quality plan to achieve compliance with the NAAQS. Nonattainment areas have a local SIP which is incorporated into the State's overall SIP. The SIP often contains a Motor Vehicle Emissions Budget (MVEB) for a particular nonattainment area that is the basis for achieving regional conformity.

11.0 Abbreviations and Acronyms

AADT	Annual Average Daily Traffic
AQ	Air Quality
CAA	Clean Air Act
CE	Categorical Exclusion
CFR	Code of Federal Regulations
CMP	Congestion Management Process
CO	Carbon Monoxide
DEIS	Draft Environmental Impact Statement
EA	Environmental Assessment
ECOS	Environmental Compliance Oversight System
ECPD	Environmental Project Development Manual
EIS	Environmental Impact Statement
ECPD	Environmental Project Development Manual
ENV	TxDOT's Environmental Affairs Division
EPA	Environmental Protection Agency
ETC	Estimated Time of Completion
FHWA	Federal Highway Administration
FEIS	Final Environmental Impact Statement
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxics
MTP	Metropolitan Transportation Plan
MVEB	Motor Vehicle Emissions Budget
NAAQS	National Ambient Air Quality Standard
NA/MA	Nonattainment Area/ Maintenance Area
NEPA	National Environmental Policy Act
NO ₂	Nitrogen Dioxide
PM	Particulate Matter
ROD	Record of Decision
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
SOP	Standard Operating Procedure

SOV	Single Occupancy Vehicle
STB	Surface Transportation Board
STIP	Statewide Transportation Improvement Program
TAC	Texas Administrative Code
TAQA	Traffic Air Quality Analysis
TCAA	Texas Clean Air Act
TCEQ	Texas Commission on Environmental Quality
TERP	Texas Emission Reduction Program
TDM	Travel Demand Model
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TxDOT	Texas Department of Transportation
USC	United States Code

Appendix A

The following table shows the revision history for this guidance document.

Revision History	
Effective Date Month, Year	Reason for and Description of Change
February 2014	Version 1 release
August 2014	Version 2 Revised Fig 1 Project Evaluation Flowchart for Air Quality Studies to better describe the evaluation process.
January 2016	Version 3 includes a general update to the handbook. Specifically, general conformity and TCEQ MOU requirements were updated to make the formatting consistent with other analyses.
January 2017	Version 4 includes updates to the MSAT requirements and references based on FHWA's updated Interim MSAT Guidance dated October 18, 2016.
May 2017	Version 5 updates the air quality compliance flowchart.