

MEMORANDUM

TO: Local Public Agencies Section - All LPA Sub-recipients

FROM: Beverly Chenausky, Air & Noise Program Manager

CC: Paul O'Brien, Environmental Planning Director

DATE: May 4, 2016

RE: Project level hot-spot consultation in PM₁₀/PM_{2.5} nonattainment or maintenance areas

On March 10, 2006, EPA published a final rule establishing transportation conformity requirements for analyzing the local PM air quality impacts of transportation projects (71 FR 12468). Under this rule, all new PM hot-spot analyses for applicable projects must be quantitative.

PM hot-spot analyses are only required for projects of local air quality concern, which include certain highway and transit projects that involve significant levels of diesel vehicle traffic and any other project identified in the PM SIP as a localized air quality concern. No PM hot-spot analysis, even a qualitative one, is required for projects that are not of local air quality concern. Examples of projects requiring a quantitative hot-spot analysis can be found in Attachment A.

As recommended by EPA and FHWA, ADOT Environmental Planning developed a formal process to determine when a quantitative PM hot-spot analysis is needed at the project-level. ADOT will use the "Project Level PM Quantitative Hot-Spot Analysis – Project of Air Quality Concern **Questionnaire**" to meet the interagency consultation requirements, for all federally funded projects in PM₁₀ and PM_{2.5} nonattainment areas. The questionnaire will identify any potential projects of local air quality concern, and is reviewed by FHWA prior to consultation. If the project requires a quantitative hot spot analysis, the "Project Level PM Quantitative Hot-Spot Analysis **Consultation Document** for Project of Air Quality Concern", will be completed and circulated to gain consensus from consulting parties on the modeling assumptions and inputs needed to perform a quantitative hot-spot analysis, when needed. A general process is shown in Attachment B, with more specific instructions found in the ADOT documents described. This process has been vetted through interagency consultation and local agencies should work directly through ADOT to consult on projects in PM nonattainment areas.

While this memo focuses on PM hot-spot requirements, other air quality analysis requirements can apply, depending on the location and scope of the project. These included carbon monoxide (CO) hot-spot analysis, mobile source air toxics emissions analysis, and addressing greenhouse gas/climate change impacts. For more information, including a listing of current nonattainment and maintenance areas and guidance documents, visit the ADOT air quality web page at <http://www.azdot.gov/business/environmental-planning/air-quality>.

EXAMPLES OF PROJECTS THAT REQUIRE PM HOT-SPOT ANALYSES

EPA noted in the March 2006 final rule that the examples below are considered to be the most likely projects that would be covered by 40 CFR 93.123(b)(1) and require a PM_{2.5} or PM₁₀ hot-spot analysis (71 FR 12491).

Some examples of projects of local air quality concern that would be covered by 40 CFR 93.123(b)(1)(i) and (ii) are:

- A project on a new highway or expressway that serves a significant volume of diesel truck traffic, such as facilities with greater than 125,000 annual average daily traffic (AADT) and 8% or more of such AADT is diesel truck traffic;
- New exit ramps and other highway facility improvements to connect a highway or expressway to a major freight, bus, or intermodal terminal;
- Expansion of an existing highway or other facility that affects a congested intersection (operated at Level-of-Service D, E, or F) that has a significant increase in the number of diesel trucks; and,
- Similar highway projects that involve a significant increase in the number of diesel transit busses and/or diesel trucks.

Some examples of projects of local air quality concern that would be covered by 40 CFR 93.123(b)(1)(iii) and (iv) are:

- A major new bus or intermodal terminal that is considered to be a “regionally significant project” under 40 CFR 93.101; and,
- An existing bus or intermodal terminal that has a large vehicle fleet where the number of diesel buses increases by 50% or more, as measured by bus arrivals.

A project of local air quality concern covered under 40 CFR 93.123(b)(1)(v) could be any of the above listed project examples.

EXAMPLES OF PROJECTS THAT DO NOT REQUIRE PM HOT-SPOT ANALYSES

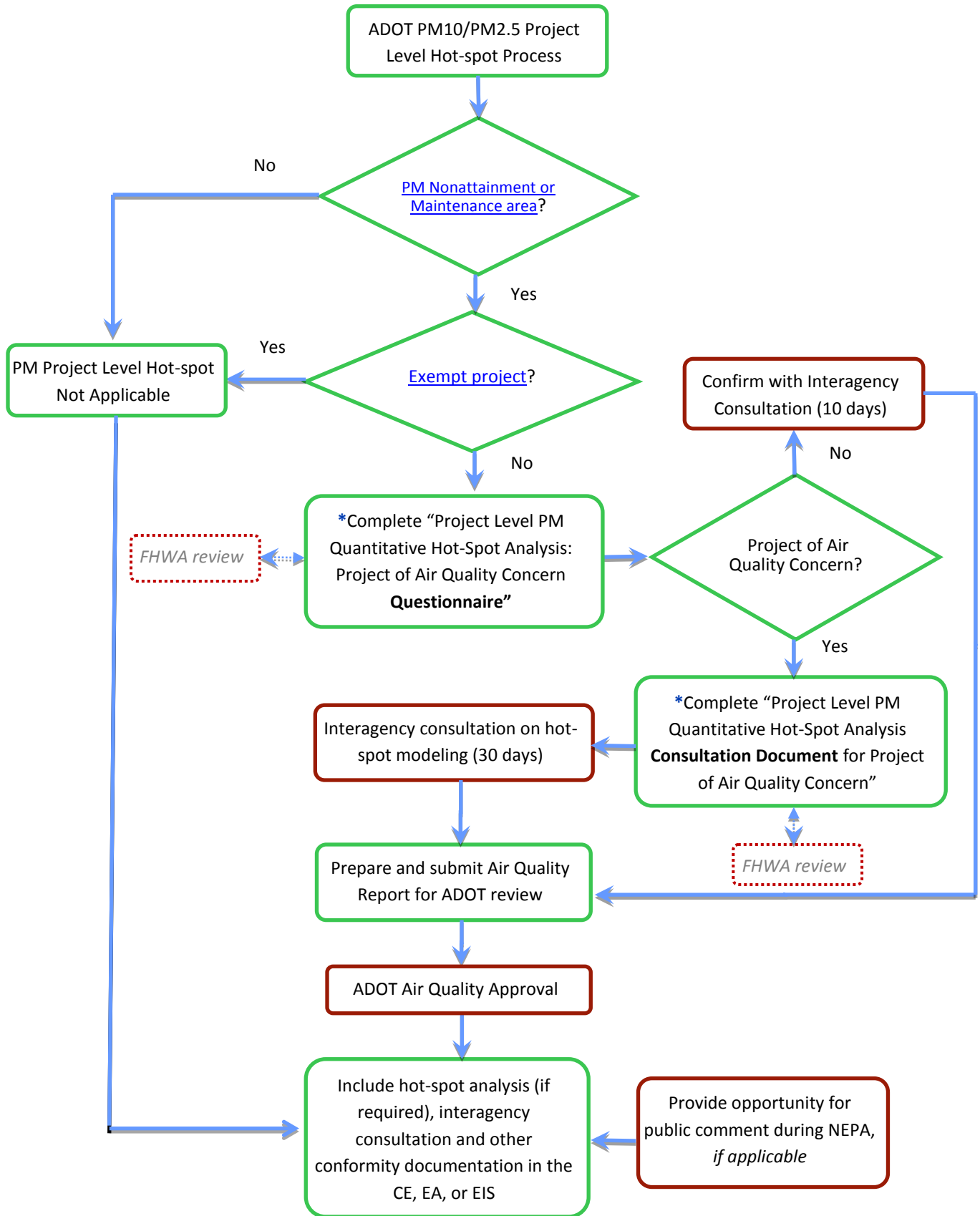
The March 2006 final rule also provided examples of projects that would not be covered by 40 CFR 93.123(b)(1) and would not require a PM_{2.5} or PM₁₀ hot-spot analysis (71 FR 12491).

The following are examples of projects that are not a local air quality concern under 40 CFR 93.123(b)(1)(i) and (ii):

- Any new or expanded highway project that primarily services gasoline vehicle traffic (i.e., does not involve a significant number or increase in the number of diesel vehicles), including such projects involving congested intersections operating at Level-of-Service D, E, or F;
- An intersection channelization project or interchange configuration project that involves either turn lanes or slots, or lanes or movements that are physically separated. These kinds of projects improve freeway operations by smoothing traffic flow and vehicle speeds by improving weave and merge operations, which would not be expected to create or worsen PM NAAQS violations; and,
- Intersection channelization projects, traffic circles or roundabouts, intersection signalization projects at individual intersections, and interchange reconfiguration projects that are designed to improve traffic flow and vehicle speeds, and do not involve any increases in idling. Thus, they would be expected to have a neutral or positive influence on PM emissions.

Examples of projects that are not a local air quality concern under 40 CFR 93.123(b)(1)(iii) and (iv) would be:

- A new or expanded bus terminal that is serviced by non-diesel vehicles (e.g., compressed natural gas) or hybrid-electric vehicles; and,
- A 50% increase in daily arrivals at a small terminal (e.g., a facility with 10 buses in the peak hour).



Project Sponsor

ADOT Activity

* Obtain questionnaire and/or consultation document (s) from ADOT