

FMATS 2040 Metropolitan Transportation Plan Conformity Analysis

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Conformity – What, Where and Why

- What: Transportation conformity is a way to ensure that Federal funding and approval goes to those transportation activities that are consistent with air quality goals.
- Where: Conformity applies to transportation plans, transportation improvement programs (TIPs), and projects funded or approved by FHWA or FTA in areas that do not meet or previously have not met air quality standards. These areas are known as "nonattainment areas" or "maintenance areas," respectively.
- Why: Fairbanks is a non-attainment area for fine particulates (PM_{2.5}) and a maintenance area for carbon monoxide (CO).

PM2.5 Conformity Requirements

- Designated non-attainment for 24-hour PM_{2.5} in Dec. 2009
- EPA published Transportation Conformity Rule PM Amendments effective April 2010 – addressed 24-hour PM_{2.5} standard
- With an approved SIP, transportation plan emissions are compared to attainment budgets set in the SIP
- SIP not yet approved by EPA (Draft PM_{2.5} SIP just released)
- Non-attainment areas without an approved SIP can use either of two “interim” conformity tests:
 - ❖ *Build vs. No-Build* – Build emissions cannot exceed No Build
 - ❖ *Not to Exceed Baseline* – Future year emissions cannot exceed baseline. **Option selected by FMATS**, 2008 baseline year, analysis years 2020, 2030, 2040. PM_{2.5} and NO_x (precursor).

CO Conformity Requirements

- Fairbanks submitted CO Maintenance Plan in Apr. 2004 (demonstrating ambient standards were being met), EPA approved in Sep. 2004
- Maintenance Plan had 10-year horizon
- Fairbanks submitted a new CO Limited Maintenance Plan (LMP) which was approved by EPA in Aug. 2013
- With approved LMPs, emissions analysis and budget tests no longer needed, following conformity requirements still apply:
 - ❖ Transportation plans must still meet Interagency Consultation and timely implementation of TCMs criteria
 - ❖ Ambient monitoring must still continue
 - ❖ Project-level requirements still apply
 - ❖ Major changes in planning assumptions must be identified

Consultation Procedures

- Interagency Consultation (IAC)
 - ❖ Conformity requires consultation among air and transportation agencies on conformity analysis issues, such as underlying assumptions and methodologies
 - ❖ Two IAC meetings held (Dec. 2013, Oct. 2014), documented in Appendix F of Draft Conformity Analysis
 - ❖ Key issues focused on modeling methods and SIP consistency
- Public Consultation
 - ❖ FMATS updated Public Participation Plan for 2040 MTP
 - ❖ MTP schedule includes public review
 - ❖ Final conformity analysis will incorporate response to public comments

Conformity Analysis Summary

- 2040 MTP travel modeling runs (2013 base year, 2040 forecast) used to model vehicle activity
- Updated fleet developed from Alaska DMV to fulfill “latest planning assumption” conformity requirements
- EPA’s MOVES2010b vehicle emissions model used to estimate vehicle emissions in 2008, 2020, 2030, 2040 based on MTP travel activity
- Emissions calculated within PM_{2.5} non-attainment area
- Separate emission estimates also developed for CO maintenance area (not required, but done for completeness)

PM Emission Test Results

- MTP vehicle emission modeling results:

PM _{2.5} Conformity Test Results				
Analysis Year	PM _{2.5} (tons per day)	PM _{2.5} Emissions ≤ Base Year?	NOx (tons per day)	NOx Emissions ≤ Base Year?
2008 Baseline	0.584	-	5.478	-
2020	0.327	Yes	2.207	Yes
2030	0.292	Yes	1.702	Yes
2040	0.314	Yes	1.771	Yes

- 2040 MTP passes interim PM conformity test!

Conformity Findings

- All requirements of the Transportation Conformity Rule have been satisfied for $PM_{2.5}$ -- a finding of conformity for the new 2006 $PM_{2.5}$ standard is supported for the 2040 MTP.
- All requirements of Transportation Conformity Rule for CO under a Limited Maintenance Plan also met (ambient monitoring, timely TCM implementation, interagency consultation, etc.) – a finding of conformity for the CO standards is also supported for the 2040 MTP.



Questions and Comments

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