

CDOT Air Quality & Noise

November 3, 2020 Coffee Discussion

Air Quality Update (Previous update: April 2019)

CDOT GUIDANCE: Air Quality section of Chapter 9, CDOT's *NEPA Manual* was updated in March 2020 to be consistent with the AQ-PLAG. Appendix F of CDOT's *NEPA Manual* was updated via a memo in 2019 and then with same language on NEPA website in Summer 2020.

CARB STANDARDS: AQCC adopted California's ZEV standards on August 16, 2019. ZEV requires new vehicle sales in Colorado to be approximately 6% electric vehicles (varies by year).

CONFORMITY: CDOT air quality website updated with spreadsheet listing conformity end dates. It no longer applies at these maintenance areas: Greeley, Colorado Springs, & Longmont (CO); Canon City (PM₁₀). FAQ tab of spreadsheet (see resources) addresses how to handle projects that are scoped prior to end date but NEPA document will be signed after end date.

FHWA MSAT GUIDANCE: FHWA is reviewing an update for the MSAT guidance. It was last updated October 18, 2016. Once released, it will be posted to CDOT's air quality website.

MODELING, MOVES: EPA expects to release a major update, MOVES3, by the end of 2020. Release will include webinar and guidance.

NEAR ROAD POOLED FUND: CDOT helped fund five year pooled fund study on near-road data. Included comparing near-road PM_{2.5} concentrations from modeling (AERMOD) vs. monitoring; see right column for report title and link. Findings included that modeled near-road PM_{2.5} increments substantially exceeded monitored values by 300%-500% (4x-6x) and road dust PM_{2.5} was the biggest source of modeled roadway emissions.

Noise Update (Previous update: April 2019)

CDOT GUIDANCE: CDOT's *Noise Analysis and Abatement Guidelines* was updated and became effective on October 9, 2020. Corresponding CDOT noise report template and Form 1209 also updated. Noise section of Chapter 9, CDOT's *NEPA Manual* was updated in March 2020, but that was under the 2015 NAAG.

CDOT WEBSITE: The CDOT noise website was updated in October 2020 with the revised NAAG, noise report template, Form 1209 and a publishing announcement.

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New Air Quality Resources

AASHTO *Streamlining Carbon Monoxide Project-Level Air Quality Analyses with Programmatic Agreements*, March 2020 –
http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP_25_25_Task104_Final_Report.pdf

CDOT *Maintenance Area Conformity End Dates and FAQs*, July 2019 –
<https://www.codot.gov/programs/environmental/air-quality/air-quality-regulations-and-guidance>

Near Road Pooled Fund *Modeled and Measured Near-Road PM_{2.5} Concentrations: Indianapolis and Providence Cases*, November 2020 –
<https://www.sciencedirect.com/science/article/abs/pii/S1352231020305070>

New Noise Resources

FHWA *Traffic Noise Model 3.0* (software download) –
https://www.fhwa.dot.gov/environment/noise/traffic-noise-model/tnm_v30/

FHWA *Traffic Noise Model 3.0 Help Menu – User's Guide*, December 2019 –
https://www.fhwa.dot.gov/environment/noise/traffic-noise-model/tnm_v30/tnm3_user_guide.pdf

FHWA *Traffic Noise Model 3.0 Technical Manual*, December 2019 –

FHWA NOISE REGULATION UPDATE: FHWA is in process of revising 23 CFR 772 and anticipates publishing a Notice of Proposed Rulemaking, at which time the public may submit comments.

https://www.fhwa.dot.gov/environment/noise/traffic_noise_model/tnm_v30/tnm3_tech_manual.pdf

FHWA TNM REVISION: FHWA released Version 3.0 in February 2020 and called it “optional.” Timeline for when TNM 3.0 will be required has not been established. CDOT will likely use TNM 2.5 until it is required by FHWA. Associated guidance available; see right column for titles and links. FHWA plans a minor update to TNM 3.0 for early 2021. FHWA plans to publish a screening tool by the end of 2020.

Program Update (Previous update: April 2019)

CDOT is in the process of hiring a GHG Climate Action Specialist. The position is not part of Air Quality Program and will report to David Singer. Watch for potential changes to GHG requirements in 2021.

Noise Analysis and Abatement Guidelines Discussion

(also see summary memo dated 10/9/20 on website)

1. Applicability for non-Federal projects narrowed (1.3)
2. Type I defined by 23 CFR 772; clarification includes: a through lane less than 2,500 feet is considered an auxiliary lane (3.1.1)
3. Noise Study Zone boundary either at 500 feet (freeways/expressways) or 300 feet (all other road types) (3.3)
4. Noise Abatement Criteria are to 10ths place; do not round model results to determine impacts (3.4)
5. Revisions to Activity Categories in Table 1, including addition of Government managed land (Activity Category F) (3.4)
6. Number of receptors at some Activity Category C and E facilities have changed; mostly by increasing; will increase likelihood of barriers (3.5)
7. Field work more defined, including how long to measure noise and number of measurements (3.7)
8. Wall optimization more defined, including that it will benefit as many receptors as possible, as long as it meets Cost Benefit Index (4.2.1)
9. Feasibility has 2 criteria (noise reduction & fatal flaw) (4.3)
10. Feasibility threshold changed from 1->3 impacted receptors; reduces evaluations (4.3.1)
11. Reasonableness threshold changed from 1->2 benefitted receptors (4.4.1)
12. Reasonableness Cost Benefit Index units dropped dB & is \$34,000/receptor (4.4.2)
13. How to document noise for NEPA: email, memo, or report? (7)
14. Post-NEPA analysis and reevaluations (9)
15. Revised noise report template
16. Revised Form 1209, including it is now fillable

Acronyms

AASHTO	American Association of State Highway and Transportation Officials
AQCC	Air Quality Control Commission
AQ-PLAG	<i>Air Quality Project-Level Analysis Guidelines</i>
CARB	California Air Resources Board
CDOT	Colorado Department of Transportation
CFR	Code of Federal Regulation
CO	carbon monoxide
CO ₂	carbon dioxide
DOT	Department of Transportation
EPA	Environmental Protection Agency
FAQ	Frequently Asked Question
FHWA	Federal Highway Administration
GHG	greenhouse gas
LEV	Low Emission Vehicle
MOVES	Motor Vehicle Emissions Simulator
MPO	Metropolitan Planning Organization
MSAT	mobile source air toxic
NAAG	<i>Noise Analysis and Abatement Guidelines</i>
NCHRP	National Cooperative Highway Research Program
NEPA	National Environmental Policy Act
PM ₁₀	particulate matter of 10 microns in diameter or smaller
TNM	Traffic Noise Model
ZEV	Zero Emission Vehicle