To: Patulski, Meg[patulski.meg@epa.gov]; Berry, Laura[berry.laura@epa.gov]; Dubey, Susmita[dubey.susmita@epa.gov]
Cc: Odendahl, Steve[Odendahl.Steve@epa.gov]; Denawa, Mai[Denawa.Mai@epa.gov]; Dresser, Chris[Dresser.Chris@epa.gov]; Anderson, Carol[Anderson.Carol@epa.gov]; Schuller, Jennifer[Schuller.Jennifer@epa.gov]; Jackson, Scott[Jackson.Scott@epa.gov]; Rickard, Joshua[Rickard.Joshua@epa.gov]
From: Russ, Timothy
Sent: Wed 11/16/2016 5:41:17 PM
Subject: DRAFT Information for Transmittal to CDOT/FHWA Regarding 10/25/16 Cooperating Agencies Meeting
ISSUE_1-Lack_of_Consultation_and Compressed_Schedule.docx
ISSUE_2-Change_in_Background_Monitor_Location.docx
ISSUE_3-Revised_PM10_Hot-spot-Modeling.docx

Hi Everyone,

Ex. 5 - Deliberative Process

Thanks to all for your review and edits!

Tim

Tim Russ
Environmental Scientist
USEPA Region 8
Air Program
1595 Wynkoop Street (8P-AR)
Denver, CO 80202-1129
Ph. (303) 312-6479
Fax (303) 312-6064

e-mail: russ.tim@epa.gov

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Ex. 5 - Deliberative Process

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La Casa (CASA)
Region: Denver
Monitoring Station
4545 Navajo Street
SAROAD:
AQS ID: 080310026
Latitude: 39.779460
Longitude: -105.005124
Reporting capabilities (hourly)
SLAMS: CO, PM10, PM2.5
NAMS: O3, SO2
SPM: NO, RD, RS, TEMP, WD, WS

EPA's November, 2015 PM Hot-spot modeling guidance ("Transportation Conformity Guidance for Quantitative Hot-spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas") notes the following in section 9.3.4 *24-hour PM_{10} NAAQS*:

Calculating Design Values and Determining Conformity

The 24-hour PM_{10} design value is calculated at each receptor by directly adding the sixth-highest modeled 24-hour concentrations (if using five years of meteorological data) to the appropriate monitor value for the 24-hour background concentration from three years of monitoring data, based on Exhibit 9-6.[153] Exhibit 9-6: Monitor Value Used for Design Value Calculation

Number of Background Concentration Values from the Monitor	Monitor Value Used for Design Value Calculation

< 347	Highest Monitor Value
348 -695	Second Highest Value
696 -1042	Third Highest Value
1043 -1096	Fourth Highest Value

PM_{10} data from the La Casa monitoring site are provided in the table below:

POC 1 1 in 3 Sampler

Year	N	Highest value	2nd highest	3rd highest	4th highest
2015	119	55	48	44	43
2014	127	66	65	62	62
2013	122	81	73	56	45

"N" = the number of days of valid data recovery.

NOTE: There are actually three PM_{10} monitors co-located at the La Casa monitoring location. POC#1 is a "1 in 3" sampler and takes a sample every 3rd day; it is our understanding that this is the primary monitor as so designated by CDPHE. POC#2 is a "1 in 6" sampler and takes a sample every 6th day and POC#3 is a continuous monitor and samples every day.

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"To estimate emissions from the highway segment nearest the neighborhoods where pollution levels are expected to be the worst, COOT omitted half of expected truck emissions by using the region wide truck share (4.9%) of VMT rather than the actual truck counts on 1-70 (9.8%) reported on CDOT's website. Does the EPA rule require that emissions from actual traffic on the interstate be modeled?"

FHWA provided the below response:

"For the ROD modeling, FHWA ran MOVES2010b at the Project scale to develop lookup tables of PM10 emissions rates for every possible combination of speed and grade. Separate tables of emissions rates were developed for "cars" and "trucks," as defined in the DRCOG model. To calculate total emissions for each link, these emissions rates (along with the APCD road dust emissions rates) are applied to the car and truck volumes on each link. Thus, rather than using one project-wide "truck fraction," truck emissions are explicitly calculated for each link using the reported truck volume for that link."

Ex. 5 - Deliberative Process

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Please let us know if there are any questions.

Thanks!

Tim

Tim Russ
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Air Program
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Denver, CO 80202-1129
Ph. (303) 312-6479
Fax (303) 312-6064
e-mail: russ.tim@epa.gov