

AMPO Air Quality Work Group Meeting: Updates for MPOs

September 22-23, 2011

Chicago, Illinois

Sarah J. Siwek & Associates

Updates on Three Items

- FHWA Conformity Training
 - FHWA has provided training through contract with Sarah Siwek in SC, MO, WVA, FL, and NV
 - Working to prepare potential new nonattainment areas under expected tightening of ozone NAAQS
 - Can continue to provide training if demand exists and minimum 20 persons
- Examples of transportation conformity practices on FHWA website
 - Recommendations for new examples
- Clean Construction Act of 2011

Seven Categories of Examples of Transportation Conformity on FHWA website

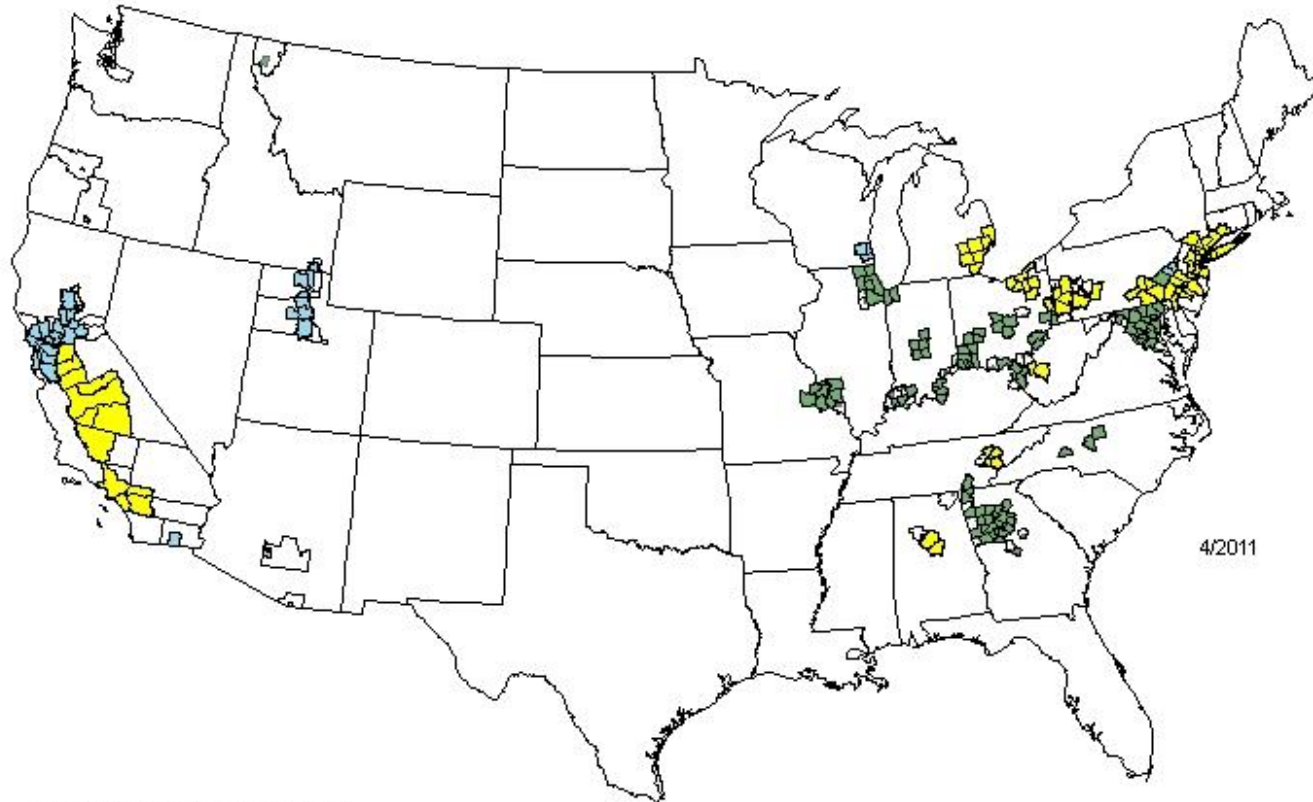
- Carbon Monoxide Screening protocols
 - CA/MN/NY/Wash, DC
- Conformity determination reports
 - ARC/GTC/Rocky Mt./NCTCOG
- Interagency consultation
 - OKI/Rocky Mt/Triangle Air Partnership/SCAG/ARC
- State and Local Procedures for determining whether projects require hot-spot analysis
 - SCAQ/ARC/KY/NC
- PM2.5 and PM10 Qualitative Analysis
 - AL/DC/IL/KY/MD/NY/VA)
- On-road mobile source measures in SIPs
- Statewide information sharing and conformity work groups
CA/TX

Clean Construction

Washington, D.C.

- S.972 – Clean Construction Act of 2011 Senator Carper introduced 5/12/11.
 - Senate Environment & Public Works Committee held hearings
 - 6 co-sponsors (NY, NJ (2), RI, VT, MD)
 - 21 states have PM2.5 nonattainment areas
 - Intent is to include in Transportation Reauthorization bill
 - Bill supported by Association of General Contractors (AGC) and the Clean Air Task Force
 - Would allow use of all major program category funds to pay for retrofit costs (e.g. NHS/IM/STP/CMAQ, FTA funds, etc.)

Counties Designated Nonattainment for PM-2.5 (1997 Standard) and/or PM-2.5 (2006 Standard)



Designated Nonattainment

- 1997 PM-2.5
- Both 1997 and 2006 PM-2.5
- 2006 PM-2.5

Nonattainment areas are indicated by color. When only a portion of a county is shown in color, it indicates that only that part of the county is within a nonattainment area boundary.

Clean Construction Act of 2011

Overview

- Would apply in PM2.5 nonattainment and maintenance areas
- Applies to any off-road and on-road diesel equipment operated on highway or public transportation projects
 - Operate over 80 hours during life of project
 - Excludes:
 - 1) equipment that meets standards for new diesel engines;
 - 2) equipment that has already been upgraded;
 - 3) lift cranes that could be adversely impacted by emission control technology; and
 - 4) equipment brought onto a construction site for emergency situations.

What Would Clean Construction Cost?

- CATF and Emission Control Technology Association (ECTA) commissioned Sarah Siwek & Associates to estimate costs
- Eleven case studies were conducted on road and transit projects where retrofitted construction equipment was/is being used
- Three key findings
 - A retrofit requirement that mandates BACT would cost less than one percent of contract costs; in most cases less than one-half of one percent
 - Newer control technologies cost more but are more effective
 - Installation of retrofit equipment will not impact project schedules

**Table 1: Summary Table of Projects that Used Diesel Retrofits
on Off-Road Construction Equipment
Shaded rows indicate use of DPFs only.**

| | State | Project | Construction Start/End | Total Project Cost | Contract Cost (where applicable) | Cost of Retrofits | Type of Retrofit | Retrofit as a % of Project or Contract Cost |
|----|-------|------------------------------------|------------------------|----------------------------|----------------------------------|-------------------|------------------|---|
| 1 | CT | I-95 New Haven | 2002/14 | \$1 billion | \$98.5 million | \$141,107 | DOC | 0.14% |
| 2 | MA | Central Artery Tunnel | 1991/07 | \$14 billion | All included | \$1 million | DOC | 0.01% |
| 3 | NY | Lower Manhattan Revitalization | 2007/15 | \$7.7 billion | \$188 million | \$113,750 | DPF | 0.06% |
| 4 | CA | Alameda Corridor East | 2004/14 | \$1.4 billion | \$55 million | \$250,000 | DPF | 0.45% |
| 5 | CT | 2009-2010 DERA Contract | 2009/10 | N/A | Not contract specific | \$510,000 | DPF/DOC | N/A |
| 6 | NJ | New Jersey Turnpike | 2009/14 | \$2.5 billion | Not contract specific | \$187,175 | DPF/DOC | .0075% to-date |
| 7 | NJ | Access to the Region's Core | 2009/18 | \$8.7 billion | \$13.6 million | \$25,000 | DOC/DPF | 0.18% |
| 8 | WI | DERA Non-Road Clean Diesel Program | 2009/10 | N/A | Not contract specific | \$750,000 | Repowers | 0.01% |
| 9 | MA | Mass DOT (six projects) | 2009/13 | \$1.1 million-\$26 million | | \$7,200-\$32,800 | DOC | 0.12%-0.71% |
| 10 | NY | Second Avenue Subway | 2010/16 | \$4.4 billion | \$34 million \$325 million | \$192,273 | DPF | 0.22%-0.57% |
| 1 | MD | Intercounty Connector (ICC) | 2007/2012 | \$2.56 billion | | TBD | TBD | TBD |

Questions?

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