

CAWP Diesel Retrofit Project

Constructing Partnerships for Clean Diesel

Mid-Atlantic Diesel Collaborative
Conference Call:
Reducing Diesel Emissions in the Construction Sector
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CAWP - Constructors
Association of
Western
Pennsylvania

- Represents contractor members in the 33 counties of western PA
- Over 70 contractor members
- Chapter of the Associated General Contractors of America (AGC)



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Types of work performed

- Heavy, Highway, Railroad, Utility, Site Development, etc.



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Background on CAWP's Clean Diesel Efforts

- Leadership at CAWP pushed for proactive efforts on environmental issues
- Obtained knowledge from AGC, Diesel Technology Forum, and the Mid-Atlantic Diesel Collaborative
- Took every opportunity to research other projects
- Joined local workgroup regarding CMAQ funding

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Background on CAWP's Clean Diesel Efforts

- Submitted applications for CMAQ funding in 2007
- Also submitted for EPA DERA funding in 2008
- CAWP was not successful in either application, but we learned enough to keep the momentum going!



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EPA National Clean Diesel Funding Agreement (ARRA) - 2009

- CAWP applied through Allegheny County Health Department along with four other partners
- Total award to ACHD was \$3.5 million - CAWP portion was \$929,000
- Establishing a fleet list
- RFP process – identifying 3 project partners
- Selection of contractors & equipment

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Summary Of CAWP's Project

- 30 pieces of off-road diesel equipment owned and operated by CAWP contractors
 - ✓ Dozers, excavators, graders, wheel loaders, off-road trucks, and paving equipment
- Retrofits consist of repowers, engine upgrades, and diesel particulate filters



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Repowers

- Replace existing engine with new engine system
- 10 dozers, 1 grader, 1 front loader, 1 excavator, 5 pavers
- Work performed by Cleveland Brothers and Penn Detroit Diesel



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Scrapping Of Old Engines



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Engine Upgrades

- Engine overhaul – new cylinders, turbocharger, fuel pumps, etc
- Achieves Tier 1 emissions
- 1 motor grader
- Work performed by Cleveland Brothers



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Diesel Particulate Filters (DPFs)

- Significantly reduces Particulate Matter (PM)
- Datalogged 16 machines
- Installed DPFs on 11 excavators
- Work performed by Ward Clean Air Products



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Old vs New DPF Filter



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DPF Installation

- Must data-log machine 4 days
- Supply of products can take 4-8 weeks
- Maintenance of DPF may impact production



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As of Today

- 30 machines are completed and 97% of original funds have been allocated
- Recently, ACHD allocated \$300,000 in additional funds to CAWP to retrofit additional machines
- CAWP has advertised a 2nd round of funding opportunities to its members

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Projected Machines for 2nd Round of Applications

- 11 machines
- 8 repowers – 3 dozers, 1 compactor, 2 graders, 1 excavator, 1 paver
- 3 DPFs – 3 excavators
- CAWP anticipates completing retrofits by August 2011

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SUMMARY OF PROJECT BY MACHINE TYPE AND RETROFIT

	Repower	Upgrade	DPF	Totals
Dozer	13			13
Compactor	1			1
Motor Grader	3	1		4
Excavator	2		14	16
Paver	6			6
Loader	1			1
Totals	26	1	14	41

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Looking Ahead

- Keep momentum going
- Engage partners for their expertise
- Educate industry
- Be prepared for future funding opportunities

Contact Information



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