

Tucson Diesel Emissions Reduction Workshop: June 29, 2005

Group Discussions on Potential Emission Reduction Projects

Group 1:

Alex Etheridge, Greycycle Arizona (alex@zelenenvironmental.com)

Anne Poulin, Vail School District (poulina@vail.k12.az.us)

David Mack, Granite Construction (David.Mack@gcinc.com)

Brian Beazer, Union Pacific Railroad (BWBeazer@up.com)

Rick Sibley, Hunter Contracting (rsibley@huntercontracting.com)

Steve Hurd, Caterpillar, Inc (Hurd_Stephen_S@cat.com)

Colleen Crowninshield, Pima Association of Governments, Clean Cities Program (ccrowninshield@pagnet.org)

Five potential projects were discussed as follows:

I. Retrofit existing school buses with diesel PM filters and oxidation catalysts

Project Team: Anne Poulin and Colleen Crowninshield

II. Recycle yellow grease for biodiesel production at Vail School District

Project Team: Anne Poulin and Colleen Crowninshield

III. Bring one of Union Pacific Railroad's electric locomotives to the AZ region

Project Team: Brian Beazer, Union Pacific

IV. Retrofit School Buses at Rio Rico School District (existing EPA Clean School Bus Grant) Steve Hurd, CAT and Colleen Crowninshield are working on this.

V. Assist w/Border Project to recycle yellow grease

Project Team: Brian Beazer, Union Pacific Railroad and Colleen Crowninshield,

Group 2:

Tom Badgett, Idleaire Technologies (tbadgett@idleaire.com)

Cotton Burlingame, EcoFuel Solutions (afv@theriver.com)

Hal Burlingame, Handicar (acetech@theriver.com)

Lee Comrie, Pima Association of Governments (Lcomrie@pagnet.org)

Marc Lappitt, Amphitheater Unified School District (mlappitt@amphi.com)

Karen Wilhelmsen, Pima County Department of Environmental Quality (Karen.Wilhelmsen@deq.pima.gov)

Larry Zabel, Raytheon (ldzabel@raytheon.com)

Sue McDowell, US EPA Region 9 (mcdowell.susan@epa.gov)

I. To bring alternative fuels and necessary infrastructure, specifically a CNG slow-fill station to school districts for school buses (Amphitheater USD in particular).

- A) Potential resources and partners include: Clean School Bus USA, Supplemental Environmental Projects (SEPs), DOE SEP, state infrastructure bank, legislative mandates
- B) Cost Estimate: \$750,000

II. Leverage and/or expand Idleaire Technology beyond truck stop electrification

- A) Identify potential local terminals; create alliances; identify funding sources to offset costs; research and understand local funding opportunities (state/local)
- B) Potential sites: rest stops, distribution centers, truck stops

III. Use recycled oil/grease to produce biodiesel

- A) Grease is readily available
- B) Need to eliminate removal charges
- C) Need to increase b100 participation/acceptance
- D) Separation Process will require private/public investment

IV. Greater access to testing facilities

- A) To stimulate small business participation and stimulate innovation, need to make available EPA testing facilities at no or low cost; provide small business assistance to offset costs.

Priority Voting:

I. To bring alternative fuels and necessary infrastructure, specifically a CNG slow-fill station to school districts for school buses (Amphitheater USD in particular).

- A) Potential resources and partners include: Clean School Bus USA, Supplemental Environmental Projects (SEPs), DOE SEP, state infrastructure bank, legislative mandates
- B) Cost Estimate: \$750,000

Project Team:

Marc Lappitt, Amphitheater USD
Hal Burlingame, Handicar

II. Use recycled oil/grease to produce biodiesel

- A) Grease is readily available
- B) Need to eliminate removal charges
- C) Need to increase b100 participation/acceptance
- D) Separation Process will require private/public investment

Project Team: Cotton Burlingame

Group 3

Lee Alter, Western Regional Air Partnership (lalter@westgov.org)

Carolyn Audilet, Rincon (caa@rincon.com)

Diane Austin, University of Arizona (daustin@u.arizona.edu)

Bill Ball, Tucson Unified School District (520-225-4600)

Angela Barclay, Entranco (ABarclay@Entranco.com)

Beth Gorman, Pima County, Department of Environmental Protection
(beth.gorman@deq.pima.gov)

Debra Johnson, Emissions Products International (debra.tj@cox.net)

George Marshall, O'Leary Construction (george@olearyconst.com)

Carmina Reyes, Technical Institute of Nogales (via Diane Austin)

Michelle Roos, U.S. EPA Region 9 (roos.michelle@epa.gov)

I. Sister city (Nogales/Tucson) biodiesel program –This project would help to further the understanding of the emissions benefits and engine efficiency/power implications of using biodiesel on buses and construction equipment by locally producing biodiesel and documenting the results on 4 total pieces of equipment.

Project Team:

Carmina Reyes – student from Nogales

Lee Alter – WRAP - could help research existing information about biodiesel and has a guidance document that we could share with the group

Beth Gorman – PIMA County – offered to serve as the recipient of any grants funds, as PIMA could then distribute these funds to other partners

Diane Austin – University of Arizona – offered to help with translation and technical assistance on the Mexico side

Angela Barclay– engineering – offered to assist with grant writing

George Marshal – O'Leary Construction – offered to perform these tests on a piece of this equipment and measure the impacts

Debra Johnson – EPI – offered to use EPI technology on the equipment to measure its benefits and might even be able to donate a vehicle

Michelle Roos – EPA – offered to provide staff assistance (Dana Warn) and possibly funding from the West Coast Collaborative

II. Spanish Language Documents – This project would identify a suite of potential English documents on diesel that could be translated into Spanish.

Project Team:

Debra Johnson– IPA – has translator contacts

Lee Alter – WRAP – has many kinds of outreach documents

Michelle Roos – EPA – also has many kinds of outreach documents

Diane Austin– U of A- and George – O'Leary Construction – offered to look through a subset of WRAP and EPA documents and decide which documents might be best.

III. Retrofit 101 Education piece – This project would create a website/email that has basic information about retrofits. The information will then be sent to the AZ Workshop participants.

Project Team:

Michelle Roos and Lee Alter

IV. Idle reduction education campaign – This project will enable PIMA County to create materials for truckers on and will motivate the creation of the infrastructure for idle reduction technologies.

Project Team:

Michelle Roos to put Beth Gorman in touch with Bill Warf, LRAPA and ODE