

## **Advancing US-Mexico Border 2012 Air Policy Forum Priorities**

The co-chairs of the US-Mexico Border 2012 Air Policy Forum (APF) would like to thank the APF participants for taking part in the year-long effort to identify a set of actionable priorities for the APF to support. The results of this ambitious process as well as next steps, which involve linking efforts of the APF with two other air quality related events taking place this fall in El Paso, Texas, are detailed below.

### **Air Policy Forum Prioritization Process**

#### Background

In October 2004, the US-Mexico Border 2012 Air Policy Forum (APF) began a series of binational discussions with local and regional border air and health stakeholders with the purpose of deriving consensus and policy direction on air-quality related priority areas for the APF co-chairs to consider. Using the outcomes from that meeting as well as those from the APF discussion at the National Coordinators meeting in March 2005, other discussion fora, and extended comment periods, the APF co-chairs have been working to elaborate and refine those priority areas. The final comment period recently concluded, and the co-chairs have been working to synthesize and distill those comments. The full exposition of results, which has been organized by issue and color-coded by commenter, is included here as a separate document and is being disseminated to the broad stakeholder group for finalization by mid-October 2005.

#### Prioritization Process Outcomes

The co-chairs organized comments by recommendations grouped into four main categories: (1) Program Management Tools; (2) Clean Efficient Transport (Vehicles and Fuels); (3) Clean, Efficient Energy Transmission, Generation, and Use; and (4) Controlled Area Source Emissions. Within each major category, specific comments were summarized and organized by recommendation according to three thematic areas: (a) training and capacity building; (b) policies and strategies; and (c) communication and outreach.

Per the decision making path outlined at the October 2004 APF meeting in Tijuana, the APF co-chairs were looking for cross-cutting interests in the form of common priorities shared by more than one region, organization, etc. In analyzing the APF participant comments, the co-chairs observed the strongest commonalities with respect to the following challenges/needs:

- (1) The need for improved information exchange and outreach. Several participants identified the lack of real-time, high quality air quality monitoring and health surveillance data availability and compatibility as particular issues that should be addressed. In addition, many comments were in the form of requests for more outreach efforts to educate health officials and the public on existing information resources.
- (2) The need to support a cross-border approach to addressing air quality management in the various transboundary (also referred to as binational or shared) airsheds throughout the US-Mexico border region. The Paso del Norte Joint Advisory Committee's (JAC) *One Basin Resolution* was cited as a model that could be replicated in other shared airsheds.

- (3) The need to reduce particulate matter (PM) emissions through:
- (a) Reducing emissions from diesel sources --- Several projects being implemented in the border region are focused on characterizing PM emissions from trucks and increasing understanding of diesel PM emission impacts. These projects have been identified by the North American Development Bank (NADBank) as having a potential to be expanded border wide.
  - (b) Increasing the availability of ultra low sulfur diesel in the border region --- A stated priority of many border stakeholders throughout various APF discussions, the issue has gained momentum as Mexico is taking concrete steps toward implementing low sulfur fuel including the July 2005 announcement regarding a new regulation and a substantial commitment of funds to PEMEX to start producing low sulfur diesel fuel.
- (4) The request for workshops/training sessions to build capacity related to the following issues. The co-chairs note that while capacity building at the state and local levels was expressed as a need across all regions of the border, many of the issues are area-specific and are more appropriately addressed at the regional workgroup or task force levels.
- a. emission inventories
  - b. inspection and maintenance programs
  - c. financial and market-based mechanisms:
    - i. revolving funds
    - ii. clean air investment fund (CAIF)
    - iii. leveraging NADBank projects and funds
    - iv. supplemental environmental projects (SEPs)
    - v. emissions trading
  - d. best management practices regarding:
    - i. energy efficiency and conservation
    - ii. agricultural practices, including open burning
    - iii. other open burning
    - iv. road dust

#### Next Steps: Identifying Implementation Opportunities

Because the remarks received during the discussions and formal comment period were very broadly focused, they did not, for the most part, contemplate the level of specificity/implementation needed to advance in the priority areas identified by participants. As a result, the co-chairs have agreed to call together an *ad hoc* subgroup under the APF whose function will be to identify and prioritize more specific actions that are needed to progress in each area. The *ad hoc* subgroup will be comprised of a small number of APF participants----an equal number of participants identified by each co-chair----and will be broadly representative of the interests of federal, state, tribal, and local governments, nongovernmental organizations, academic institutions, development and financing institutions, industry, and the private sector. The *ad hoc* subgroup will meet only to help further evaluate the comments that the APF co-chairs received and will be dissolved once that task is complete. It is not intended to replace the full APF, which will continue to meet as part of the Border 2012 National Coordinators Meeting.

The *ad hoc* subgroup will be asked to convene in November 2005 in El Paso, Texas, to begin identifying actions for the APF to consider. In identifying these actions, the *ad hoc* subgroup will be asked to consider potential actions regarding the aforementioned common themes in the context of the following four guiding

principles. These guiding principles were established previously by the APF during the first phase of the prioritization process in late 2004-early-2005:

- relevance to Border 2012 air quality objectives, including understanding of the impact or risk to environmental health and the ability to minimize that impact or risk
- relative investment ---- cost-vs-benefit, including relative size of effected population, timeframe in which benefits would be recognized, etc.
- leveraging potential ---- ability to leverage other collaborative efforts or resources
- achievability ---- potential for progress in the next three to five years

To maximize opportunities for the APF *ad hoc* subgroup to network with border officials and to promote linkages between the US national air quality perspective and the issues faced by experts focused on addressing air quality in a binational context, the APF co-chairs decided to schedule the APF *ad hoc* subgroup meeting to coincide with two other events that are being planned for November 2005: (1) a workshop focused on truck idling reduction strategies, and (2) joint sessions with the Clean Air Act Advisory Committee. By convening the APF *ad hoc* subgroup meeting on the margins of these two events, the co-chairs seek to make the most of near-term opportunities to help advance progress in two areas related directly to priorities 3 and 4c (above) identified by the APF participants. The workshop and joint sessions with the CAAAC are discussed in further detail below.

## **Workshop to Explore Ways to Reduce Truck Emissions at Border Crossings**

### Background

The potential air quality and health impacts resulting from increased border truck traffic are not well understood. Emissions generated by trucks crossing the border in both directions are potentially significant and are just beginning to be quantified. Economic factors also must be considered, since the air quality impacts could place additional demands on the resources allocated to address air pollution and since the increased truck traffic likely will result in increased congestion and wait times at border crossings.

Having a better understanding of the inventory of emissions sources, and the specific emission contribution from transboundary truck traffic now will help federal, state, and local environment officials, transportation officials, customs officials, the freight sector, planning agencies and organizations, and others shape efforts to reduce pollution in a more cost-effective manner.

### Next Steps: Workshop

Prior to the APF *ad hoc* subgroup meeting a half-day workshop will be held in El Paso, Texas, to convene key government, private sector, and NGO actors from both the United States and Mexico to explore truck emission reduction strategies. Participants will explore how idle reduction technologies might benefit air quality at border crossings.

In addition, the workshop will provide an opportunity for information to be presented on a series of pilot projects that are currently being implemented in the border region. Summaries of the pilot projects are provided below. These projects are helping increase understanding of the emission impacts for cross-border commercial truck traffic as well as the capabilities of various tools for estimating in-use emissions. Each project has sought to develop a profile of trucks crossing the border and/or other heavy-duty fleets, though their approaches differ slightly. All have been gathering quantitative data as well, through use of some combination of opacimeters, PEMs, remote sensing technology, and retrofit technologies.

- EPA Region 6 and the Office of Transportation and Air Quality have been working with the Texas Transportation Institute (TTI) at Texas A&M University and the Border Environment Cooperation Commission (BECC) to implement a two-part project to study emissions from medium- and heavy-duty vehicles waiting to cross the border. The first phase of the study, which has been conducted by TTI with support from EPA Region 6, has been focused on quantifying emissions from trucks in the idle and creep drive cycles.
- A second pilot project has been implemented to estimate cross-border heavy duty vehicle emissions using PEMS, opacimeters, and heavy duty remote sensing (HDRS) equipment. This pilot project has focused on assessing the capabilities of a range of technologies and techniques for characterizing in-use emissions and for identifying gross emitters. The goals of this pilot project have included the following:
  - Demonstrating and evaluating the application of heavy duty remote sensing technology on commercial trucks as an emissions screening tool;
  - Corroborating HDRSD emissions measurements with other accepted emission measurement methods, i.e., portable emissions monitors (PEMS) and opacimeters;
  - Providing information on the average in-use emissions levels of the commercial truck fleets crossing the US-Mexico border during the study period;
  - Identifying possible emissions levels for “gross emitter” cut points; and
  - Investigating the feasibility and estimating emission reduction benefits of a gross-emitter identification program for heavy duty vehicles using HDRSD
- EPA Region 9 is providing \$100K (2005) to the California Air Resources Board (ARB) to conduct an analysis of the truck fleet that routinely crosses the California-Baja California border. The objective is to characterize diesel truck activity in the CA-MX border region in order to allow a more accurate assessment of the air quality impact of Mexican trucks. The ARB is working to develop and conduct field surveys to determine fleet composition and activity characteristics, such as country of registration; vehicle model year/odometer reading; engine model year/make/year of last rebuild; type of operation (large fleet/small fleet/independent operator); type of service (long haul/drayage); trip origin and destination; fueling habits, and future plans to increase travel in California and other states. Fuel samples from a subset of trucks are being collected for analysis. Another subset of trucks is being temporarily equipped with global positioning systems to track vehicle activity while in the United States.
- EPA Region 9 also has provided funds to the San Diego Air Pollution District to evaluate the costs and effectiveness of emission control retrofit technologies on Mexican heavy-duty diesel vehicles operating in the San Diego County-Tijuana border region. Upon completion of the scoping study, up to 20 Mexico-domiciled heavy-duty diesel trucks operating in the border region will be retrofitted with appropriate emission controls—such as diesel oxidation catalysts or diesel particulate filters in conjunction with ultra-low sulfur diesel fuel—to demonstrate their viability under operating conditions in Mexico. Demonstrating successful, cost-effective approaches to reducing air pollution from Mexican heavy-duty diesel vehicles will help build a market for cleaner diesel engines in the border region and provide an important tool for Mexico as it begins similar cleaner diesel projects. The first Mexican trucks will be retrofitted in October and November 2005.

## **Joint Session with the Clean Air Act Advisory Committee**

### Background

The Clean Air Act Advisory Committee (CAAAC) is a senior-level policy committee established in 1990 to advise the US EPA on issues related to implementing the Clean Air Act Amendments of 1990. The membership is approximately 60 senior managers and experts representing state and local government, environmental and public interest groups, academic institutions, unions, trade associations, utilities, industry, and other experts. The committee has formed several subcommittees to provide more detailed discussion and advice on many technical issues.

In addition, the CAAAC formed the Air Quality Management Workgroup to advise the Committee on responding to set of 38 scientific and technical recommendations that came out of a 2004 National Research Council report titled *Air Quality Management in the United States*. At least one of those recommendations focuses on the need for a process to identify and pursue emissions reductions from sources that only the federal government has the ability to address, such as federal and international sources.

The CAAAC meets three times a year, normally in Washington, DC, to provide advice and counsel to EPA on a variety of important air quality policy issues. In response to a long-standing request from several members of the CAAAC to hold a meeting in Texas, the next meeting of the CAAAC has now been scheduled for November 16-17, in El Paso, Texas.

### Next Steps: November Meetings

On November 16-17, the APF *ad hoc* subgroup that is called together to address implementation will participate in a series of joint sessions with the CAAAC. A joint session with the CAAAC Innovations Subcommittee will be held, which will be focused on issues related to financing. This topic area has been identified by the co-chairs, not only because these issues represent an intersection of the interest and expertise of the two groups, but more importantly, because financing is one of the areas identified by the APF participants during the prioritization process.

In addition, the APF *ad hoc* subgroup will be invited to participate in the full Committee meeting on November 17. As is the custom for any CAAAC meeting not held in Washington, DC, the agenda will be tailored to the location. In El Paso, participants will hear about some of the health studies, the JAC's work, and other border air quality related work.

## **Summary**

Outlined above are the results of the year-long APF prioritization process as well as a multi-pronged approach to advancing the priorities identified by border air quality stakeholders throughout that process. The approach consists of:

- calling together an APF *ad hoc* subgroup to address implementation
- convening an APF *ad hoc* subgroup meeting in November 2005

- taking advantage of opportunities to link related efforts by scheduling the APF *ad hoc* subgroup meeting in conjunction with two other air quality management related events that will be held in El Paso during the same week in November---- (1) a workshop to explore ways to reduce truck idling at border crossings, and (2) joint sessions with the CAAAC to discuss financing mechanisms as well as local and regional border air quality issues.

The workshop and the CAAAC meeting will highlight two air quality management issues that APF participants have identified as priorities. The APF co-chairs are hopeful that convening the APF *ad hoc* subgroup meeting during the same week will provide an opportunity to “jump start” progress on addressing at least two of the priorities----the need to address PM from diesel sources, and the need to build capacity related to financing and market-based mechanisms. During the first meeting (and subsequent discussions as necessary), however, the APF *ad hoc* subgroup will be considering implementation opportunities and challenges related to all four of the critical areas identified by APF participants during the prioritization process.