

**Minutes**  
 42<sup>nd</sup> Meeting of the  
 Joint Advisory Committee for the Improvement of Air Quality in the  
 Cd. Juárez, Chihuahua / El Paso, Texas / Doña Ana County, New Mexico Air Basin  
 1 Ardovino Drive, Sunland Park, New Mexico  
 Thursday August May 21, 2008

1. Welcome and Introductions

Bill Luthans (BL), EPA Region 6, welcomed all to the 42<sup>nd</sup> meeting of the JAC. Ana Maria Contreras (AMC), SEMARNAT, also welcomed all to the meeting. A quorum was established.

JAC Members Present	
U.S.	México
Bill Luthans – EPA	Ana Maria Contreras V. – SEMARNAT
Carlos Rubinstein – TCEQ	Sergio Zepeda - PROFEPA
Michael Baca – NMED	Araceli Salazar – COESPRIS
Mariana Chew – Sierra Club	Silvia Castro - Edo. de Chih.
Elda Rodriguez-Hefner – City of El Paso	Lic. Hector Sandoval Q. – Cd. Juárez – DNA
*Paul Perez – Western Refining	Ing. Rene Franco – MEM
Elaine Barron, M.D.	Adriana Peña - SADEC
Robert Ardovino – City of Sunland Park	Dra. Alba Corral - UACJ
Bob Currey	Ing. Ives Figueroa - CANACINTRA
Wen-Whai Li, P.E., PhD	**M.en I Alberto Rodriguez – CCSD
* Alternate	** Not Present

2. Presentation and approval of current agenda and minutes.

The Agenda was accepted with minor modifications to the order of presentations. The minutes were approved.

3. Message from the Co-Chairs

BL provided an update on the ASARCO smelter-reopening topic. He indicated Sen. Eliot Shapleigh has indicated interest in being involved in any discussions regarding re-opening of the plant. Mayor John Cook visited EPA-R6, ASARCO reps. Baker & Botts have also visited EPA-R6 to discuss the bankruptcy issue. Carlos Rubinstein (CR) indicated ASARCO has submitted required documents in compliance with the Order. The JAC resolution on ASARCO has indicated people with strong positions were able to work to develop a document which represents a wide range of interests. The JAC has plenty of challenges ahead with the revision of the new O<sub>3</sub> standard.

AMC mentioned the Air Policy Forum meeting in San Diego. She mentioned new objectives to consider greenhouse gases (GHG) in our efforts to reduce air pollution.

#### 4. Public Participation

Bill Guerra Addington stated the JAC calls itself the Joint Advisory Committee. Who(m) does it advise? BL replied the JAC advises the co-chairs of the Air Work Group now called the Air Policy Forum. A document like the JAC ASARCO resolution will circulate up the chain at EPA to include his boss in Dallas and management in Washington. The JAC would like to be more of an advisory committee, but ½ of the members also regulate (at times based on recommendations from the committee). The JAC also puts together projects, brings in funds, helps establish legislation such as the law allowing cross-border transfer of emissions reductions and influences investment in larger projects. Existence of the ASARCO resolution indicates a stated interest in achieving results so his management in Dallas does pay attention to the output of the JAC. Being established by the La Paz Agreement and the State Department of both countries, the JAC does have some stature from a legal perspective.

Bill Currey added that August 13 was the 25<sup>th</sup> anniversary of the La Paz Agreement. People from both sides of the border still commemorate that day. It's important to recognize the JAC is the only formalized group identified by the 2 countries through State Department memos. The rest of the border looks at the JAC as a model of binational cooperation. BL added if one looks at the JAC Strategic Plan there are several recommendations that were made. People like Biol. Alma Leticia Figueroa used this as the leverage needed to develop a vehicle verification program in Juarez. The JAC had oxygenated gasoline distributed in Jz to reduce CO emissions across the city.

AMC commented that the resolution signed in Mexico is very clear. Mexico's congressional resolution stated that the ASARCO issue be discussed at an upcoming JAC meeting. The unanimously supported resolution stated this issue be considered at all 3 levels of government which has been done.

Elaine Barron stated the Clean Air Act Advisory Committee will develop some action items to take to EPA. She invited recommendations and ideas from JAC members.

#### 5. JAC Discussion on Public Comments

Discussions were embedded within the public comments section.

#### 6. Air Quality Report

Victor Valenzuela presented the air quality report. Since January 2008 there were no exceedances or violations of the CO standard in El Paso. Juarez had 1 exceedance at CAMS 662 (20-30 Club). This is the only station that exceeded the Mexican 8-hr CO standard of 11ppm. The area surrounding the 20-30 Club presents a high level of motor vehicle activity. One recommendation the JAC may be willing to submit is improve the flow of traffic in this area. The JAC may recommend installation of a traffic light at Vicente Guerrero & Ave. de las Americas to improve the flow of traffic.

There were 3 exceedances of the 1-hr O<sub>3</sub> standard in Mexico which is 0.110 ppm. All were observed at CAMS 663. The US 1-hr standard is not in effect for El Paso. CAMS 72 and 414 are exhibiting elevated O<sub>3</sub> levels, & there is concern that accelerated growth in El Paso may contribute to violations of the new 8-hr O<sub>3</sub> levels. It is possible that within the next 2 years El Paso may be

designated in non-attainment of the revised 8-hr standard which has been set at 75ppb / 8-hr averaging period.

BL interjected the 8-hr designation seems to be exceeded in EP. CR added the response from the State (indicating an area is in non-attainment of the new standard) is March 12, 2009. EPA's response is due 1 year later. A final designation for El Paso may be made in a couple of years. EPA has developed "Early Action Compacts" where the community voluntarily undertakes initiatives to reduce ozone forming pollutants before they are required to do so by law. In return they will not be designated non-attainment during the 1<sup>st</sup> deadlines for making such designations. BL has been advised the EAC is not a given, but requires cooperation from everyone and at least a promise that what is undertaken is not going to be litigated.

CR invited all to look at the model developed by San Antonio which has done a remarkable job of putting together these EACs. Other communities that put together EACs are Corpus Christi and Austin. Among activities that can be undertaken by the JAC are promoting Stage I vapor recovery in Cd. Juarez gas stations. The infrastructure is currently in place. A formal program needs to be developed, and a US entity can undertake the investment to obtain the emissions reduction credit. A similar program was undertaken by EP Electric several years ago when it constructed environmental brick kilns in Juarez in exchange for NOx emissions reductions at a power plant in NE El Paso.

PM data from local Wedding samplers indicate an upward trend in ambient concentrations, yet the standard has not been violated. There was only 1 day in the past 5 years in which PM<sub>10</sub> exceeded the standard in Cd. Juarez. This is a very good indicator of air quality improvement. TEOMS – Tapered Element Oscillating Microbalance – data from several PM<sub>10</sub> monitoring sites do indicate several exceedances of the PM<sub>10</sub> standard, however all were observed during high-wind events. NMED operates a Partisol sampler which did observe elevated PM<sub>2.5</sub> concentrations.

AMC asked the PM<sub>10</sub> committee if a Contingency Plan for high-wind events has been contemplated. It would be nice to define some contingencies that can be undertaken to report to the public when these events are forecast. VV replied that the City of EP has developed a Natural Events Action Plan (NEAP), and several actions were proposed to the TCEQ which could be undertaken. The TCEQ prepares forecasts to report when high-wind events are forecast. One can also go to EPA-Now to sign-up for those forecasts.

Hector Sandoval Quessney reported that 3 stations have been operated by Cd. Juarez since the early 1990's. Currently the network is being expanded by the Municipal government. Several PM<sub>10</sub> samplers have been deployed across the city.

Daniel Terrazas reported the remote sensor for motor vehicle traffic has been repaired and is planned for deployment. There are currently funds available for operation of the expanded network. 4 CAMS are operating. The newest (4<sup>th</sup>) site is a mobile unit. On 18 February the Municipio began operating a network of PM<sub>10</sub> samplers in Anapra & Sec. Federal #3. On 24 February PM<sub>10</sub> samplers were activated in Escuela Niñez Mexicana and another at the Babicora police station. On 1 March a PM<sub>10</sub> site was activated at ACS. Currently 5 new PM10 sites are operating.

To date the city has 16 exceedance days, 13 of which are due to PM<sub>10</sub>. A 3-year review of data indicates CO has not been a major problem. We have 2 O<sub>3</sub> exceedances to date this year. We've had 4 ozone action advisories made to the community. Juarez consistently has PM<sub>10</sub> issues as indicated by the new PM<sub>10</sub> monitoring network. Problems are primarily observed at Niñez Mexicana. As a result of these measurements COESPRIS will be undertaking a respiratory health

study in this region of the city. Pestalozzi, an older PM<sub>10</sub> site is non-operational at this time given noncompliance with siting criteria due to changes in the surroundings such as trees, emissions sources, etc.

On a separate note, the vehicle verification program is being reinvigorated and will take time to re-establish given the size of the vehicle fleet throughout the community. A wintertime PM study is being prepared to track elevated PM levels during the early evening hours. This study is being undertaken in association with NMED.

## 7. Presentations

### A. Update on JAC Resolution(s)

BL reported the resolution has been moved thru the Air Policy Forum. It is an effort that brought together members with very strong points of view and this notwithstanding we were able to achieve consensus. Now its time to get to work.

### B. Doña Ana County PM<sub>10</sub> dust control programs

Michael Baca, Environmental Analyst NMED Air Quality Bureau presented this report. EPA developed a Natural Events Policy through a memo dated May 30, 1996 and an Updated Final Rule dated May 21, 2007. This policy addresses Natural High Wind Events, applying Best Available Control Measures (BACM) and Reasonably Available Control Measures (RACM).

The development of the Doña Ana County (DAC) NEAP involved community stakeholders: primary stakeholders (County, City, NMDOT, NMSU, & White Sands Missile Range) and secondary stakeholders (BLM, NRCS, Ft. Bliss, & Camino Real Landfill).

The purpose of a NEAP is to protect public health and welfare. It includes the following elements:

#### Public notification & education

Health Effects: Short & Long Term; susceptible populations; natural events which affect air quality.

#### Actions to minimize health impacts

Develop brochures, fact-sheets; develop a NEAP briefing document, etc.; Conduct open houses / formal presentations.

#### Minimize public exposure;

Public Education, Common Sense Approach, Windy Season-Late Winter & Early Spring notifications, ID of Susceptible Populations & Precautionary Measures, Air Quality Index (AQI) & Perception of Dustiness, Press Releases & PSAs, Internet: [air.nmenv.state.nm.us](http://air.nmenv.state.nm.us)

#### Abatement & Mitigation;

##### Common Sources & Activities

Natural - Undisturbed Desert (Highest Winds),

Anthropogenic (Man-Made) - Construction Sites, Vacant Lots / Recreational Areas, Unpaved Roads, Playgrounds, Parking & Equipment Lots, & Military Training Exercises

##### BACM

Revegetation and Organic Mulches, Erosion Control Mats & Geotextiles, Suppressants and Stabilizers, Smart Timing-Planning

##### LOCAL ORDINANCES

Stakeholders and Governments, Best Equipped for Development & Implementation of

Solutions, CLC Ordinance No. 1789 (4/7/00), DAC Ordinance No. 194-2000 (12/15/00), Protect and Maintain Natural Environment & Reduce Negative Health Effects.

STAKEHOLDER AGREEMENTS have been developed with the following stakeholders:

NMSU, NMDOT, Fort Bliss Military Reservation, Others

Periodic review prepared for EPA by NMED and reviewed every five years).

Projects of interest:

Atlas Project: PM Emissions Inventory, Agricultural v. Nonagricultural Erosion-Largest Source Category (#1 BY-FAR), Road Dust-Paved and Unpaved (Second) Cropland Preparation, Construction Activities

ADEQUACY

Overview of Ordinances and Agreements

Successful First Stage, Continued Enforcement Essential. DAC NEAP Used as a Model for other SW Air Pollution Agencies

FUTURE PLANS

Improved Public Outreach & Education (Pro-active), State Wide Regulations, Improved Emissions Inventories

### C. Report on the Montreal Protocol & Climate Change

Ana Maria Contreras reported on strategies INE-SEMARNAT is undertaking to reduce GHG. For Objective 1, INE is undertaking a broad emissions inventory to determine how much emissions can be reduced. Objective 2 addresses strategies to be undertaken to achieve these goals. One of the themes involves EI's and atmospheric monitoring and the 2<sup>nd</sup> involves defining the airsheds, a 3<sup>rd</sup> involves electric power generation, a 4<sup>th</sup> involves mobile sources. Re: GHG, an objective involves developing an inventory of GHG emissions sources and extend voluntary programs between the US & Mexico to reduce GHG emissions.

Programs that have worked include "clean transportation". New rules are being developed to provide as much information across Mexico. The EI w/ a base year of 2005 is being undertaken nationwide. Several Pro-Aire programs are being developed in certain regions considered to have degraded air quality. For the EI's and air monitoring MX needs to develop consistent information across the country. An evaluation needs to be completed to ID cities that need air monitoring networks. Systems need to be developed to have a consistent method of providing data to the country and exchange data between the US & MX.

HCFC Refrigerant Capture Program - Mexico has developed a national program to reduce GHG by capturing refrigerant gases. Several centers are opening across the country with the purpose of capturing HCFCs from vehicles & other refrigeration units. CBETIS 128 will establish a center in Juarez for this purpose.

The relationship between Climate Change and the Kyoto Protocol involves updating Mexico's industrial facilities which emit HCFCs and use HCFCs as a material in production processes. Mexico will also establish emissions limits regarding these pollutants. 100 tons HCFC have a very high global warming index compared to 100 tons of CO<sub>2</sub>. Controlling these types of emissions goes a long way to reducing global warming.

### C. Cd. Juarez Pro-Aire Environmental Trust Fund Proposal

Denisse Varela provided an update of actions completed to develop the Environmental Trust Fund. This project pulls economic resources to accomplish the goals of the PROAIRE which calls for

finding financial resources to accomplish the program goals. The PROAIRE has both short-term and long-term goals. The Trust Fund will be funded thru a small fee added to the price of each liter of gasoline & diesel fuel sold in Juarez. This fee that can be charged on fuel sales has been approved by Reforms established on 14 September 2007 to Federal law which allow fees to be added to final sales of gasoline & diesel and directly benefit the financial conditions of DF & all Mexican states. The Reforms call for 20% of the fee to be directed to Municipios and Locales.

In compliance with a directive from Mexico's Secretaría de Hacienda y Crédito Público (SHCP – Mexico's IRS) dated 31 January 2008, the States and DF all approved the method these fees would be divided. Fees collected by the trust fund would be directed toward road construction, water infrastructure, environmental programs, and urban transit systems.

The trust fund has 3 driving principals: 1) whoever pollutes pays, 2) environmental justice, 3) sustainable development. Projects that can be undertaken by the trust fund include funding the air monitoring network to expand the coverage of the network. Improve the emissions inventory reporting methods, respiratory health studies, road paving projects, street sweeping programs, vehicle inspections and maintenance programs, etc.

Several steps must still be undertaken to accomplish this effort, and more will be reported during upcoming meetings. BC recommended a subcommittee form to develop this topic. AMC requested this topic be covered in more detail during the next JAC meeting.

#### D. Air Pollution / Respiratory Health Study

Elaine Barron discussed the Environmental Dynamics of Chronic Disease. In 2003, Texas reported 11.7 million cases of seven common chronic diseases. Such respiratory health conditions shorten lives, reduce quality of life, and create considerable burden for caregivers. These health conditions also include an enormous human and economic costs such as absenteeism and treatment. Expenditure incurred in 2006 are: Treatment - \$17.2 Billion; Lost productivity - \$75.3 billion; TOTAL COST - \$92.5 billion. Texas in 2006 had a population of 23.5 million with 5.5 million (24.1%) uninsured. This uninsured group exacerbates the social costs associated with health care. Add to this 1.9 million (8.0%) LIVING IN POVERTY, 3.76 MILLION (15.9%) FOREIGN BORN, and 1.7 MILLION (7.0%) w/ DISABILITIES, and the costs continue to skyrocket.

EB mentioned APOPTOSIS: A set of characteristic morphologic and biochemical changes which occur; also known as programmed cell death. Chronic diseases have accelerated apoptosis - diabetes, heart disease, stroke, hypertension, obesity, pulmonary diseases. Ozone elevations cause apoptosis.

Exposure to environmental ozone alters semen quality. Ozone exposure causes eye, nose, throat, and lung irritation in low concentrations. At higher concentrations coughing and breathing problems occur, higher concentrations produce chest pain and pneumonia.

From 1987-1994, New England Journal of Medicine concluded consistent evidence that the levels of fine particulate matter in the air are associated with the risk of death from all causes including cardiovascular and respiratory illnesses. Chronic Obstructive Pulmonary Disease (COPD) topped the 2004 list of causes of death in women. A 27 Nov 2007 National Institutes of Health report reported ozone can affect heavier people more than those whom are of reasonable weight. Ozone exposure coupled with increased BMI yielded greater lung function decline.

EB also reported on the synergy between pollutants and one's physical environment: Topography,

barometric pressure, temperature, meteorology, and multiple pollutants demonstrated a synergy increasing the deleterious human health effects. 70-90% of the major diseases in the USA are caused by reversible behaviors and exposures. Single gene mutations are the major cause of cancers and cardio vascular disease (CVD) in <5% of the cases. A 2005 Fresno, CA study reported nitric oxide is related to traffic patterns and increased incidences of asthma. Cumulative risk assessments are lacking.

What can science and the JAC do? Improve strategies to ID toxicants, exploit comparative biology, and focus on common biological responses. Develop a scientific basis for risk comparisons. Investigate exposure sciences - toxicity, dose-response, and mechanisms of entry of pollutants into the body. Improve intervention strategies, enforce classical regulation strategies, and conduct clinical / population-based intervention strategies, and establish a strong public health reporting system when air quality conditions are degraded.

8. JAC Subcommittee Reports and Discussion - No committee reports were submitted.
9. Observations and Comments from the Public - No comments provided.
10. Highlights and consensus items of the meeting. - No comments provided.
11. Next meeting December 4, 2008 in El Paso, Texas
12. Adjourn