

Minutes

39th 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
Ardivino's Desert Crossing – Sunland Park, New Mexico
Thursday November 8, 2007

1. Welcome and Introductions

Bill Luthans (BL), EPA Region 6, welcomed all to the 39th meeting of the JAC. Ana Maria Contreras (AMC), SEMARNAT, also welcomed all to the meeting.

| JAC Members Present | |
|------------------------------------|---|
| U.S. | México |
| Bill Luthans - EPA | Ana Maria Contreras V. - SEMARNAT |
| Arch Clouse - TCEQ | **Dr. Enrique Suarez – SADEC |
| Elaine Barron, MD | *Biol. Brenda Arciniega - Edo. de Chih. |
| Tom Ruiz - NMED | Ing. Baltazar Granillo - CANACINTRA |
| Wen-Whai Li, P.E., PhD | Alba Y. Corral A., PhD. – UACJ |
| Bob Currey | Ing. Rene Franco - MEM |
| Luis Ito - EP Electric | **Araceli Salazar – COESPRIS |
| Mariana Chew – Sierra Club | C. Martin Bermudez M.- Delegado PROFEPA |
| Jesús Reynoso - EPCCHED | **Ramon Corral, PhD – CCSD |
| Robert Ardivino – Sunland Park, NM | Daniel Terrazas – Cd. Juarez – DNA |
| * Alternate | ** Not Present |

2. Presentation and approval of current agenda

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

3. Message from the Co-Chairs

Bill Luthans mentioned several funding opportunities that have developed. One grant was awarded to TTI focusing on light-duty vehicles, checking emissions, drive patterns, and developing recommendations on techniques to reduce emissions. UTEP was awarded a grant to look at carbon monoxide and indoor air quality in an effort to reduce CO fatalities in Juarez due to improper space heating practices. Another grant was awarded to Dave Eaton from UT to look at used oil management in the EP-Jz region. The JAC will be informed of when the next RFP is submitted.

4. Public Participation

Chuy Reynoso, EPCCHED, mentioned reorganization at the EPCCHED where different departments were subdivided between the City and County. The Health Dept will be transferred to the City of EP. The environmental programs will transfer to the city's Environmental Services Dept. EPCCHED was informed that EP is now in attainment for PM₁₀. EP is now in attainment for all 3 pollutants for which it violated the NAAQS. At the oxyfuels hearing held in October, EPCCHED & EPMPO read statements against removal of the oxyfuels program. Removing the oxyfuels program from the SIP would require a rules change. The City also has an ordinance requiring oxyfuels. Open burning continues to be a problem along the border.

Finally, Chuy thanked everyone for all their support after almost 40 years of public service. He's retiring in December and looks forward to enjoying his retirement. Felicidades, Chuy!!

Elaine Barron commented on the unfortunate relationship that is developing at the EP County Health Board regarding disagreements about who pays for what services offered by the local Health Dept. EB also mentioned effects of the oxyfuels program in Denver, CO where the local health district voted to continue the oxyfuels program.

BL indicated the tightening of the 8-hr O₃ standard may cause some issues given current O₃ concentrations are inching upward.

5. JAC Discussion on Public Comments

No Comments were provided.

6. Air Quality Report

Victor Valenzuela presented the air quality report. There were no exceedances or violations of the CO standard in either El Paso or Juarez between January and today's meeting. There were no violations in EP of the 8-hr O₃ standard to date in 2007. Juarez had 1 exceedance of the 1-hr O₃ standard at CAMS 662. The proposed new 8-hr O₃ standard, which is not final, may bring EP into nonattainment requiring new controls. 8-hr O₃ concentrations in EP seem to be inching upward. There have been high PM₁₀ concentration days, but no exceedances as reported by the 6-day Wedding samplers. The high PM₁₀ days involved high wind events. Frequency distribution of PM₁₀ indicates EP had 15 PM₁₀ sampling days with an AQI (air quality index) in the "Good" range. Juarez had 13 sampling days with IMECA in the Moderate range. PM_{2.5} TEOMS reported several high particulate days. There have been no exceedances of the PM_{2.5} standard in Doña Ana County, and 3-year running averages indicated a downward trend in PM_{2.5} concentrations. There continue to be many days where the 30-minute average H₂S standard is exceeded. However, the number of exceedances is dropping compared to previous years.

EB asked to what can reductions in H₂S concentration at CAMS 36 be attributed. Chuy Reynoso stated there have been modifications to the facility initiated by JMAS.

7. Presentations

A) JAC Discussion on Sunland Park PM Issues

Suzanne Michaels presented an update on activities at Camino Real Landfill (CRLF). 3 landfills handle trash for about 1 million residents in Doña Ana County. CRLF receives waste from 3 sources, Southern Doña Ana County, EP County commercial refuse, & US companies doing business in Mexico required to return their waste to the U.S. The CRLF Waste-to-Energy Project flares off the waste bio-gas and produces minimal emissions based on EPA's rules on

emissions rates. Electricity will soon be produced from the flare. EP Electric will purchase the electricity generated by this process. Landfills may soon be considered "Energy Parks". CRLF also plans to develop an algae project to produce biodiesel from some of the landfill emissions. CRLF also offers a scholarship program to Doña Ana Branch Community College Students and will soon develop a recycling program. CRLF maintains a working face of about ½ acre to reduce PM emissions. Permit requests are being submitted to work another section of the landfill. This was the 1st Title V facility in New Mexico

Mariana Chew mentioned that medical waste has been discovered at this facility, and if this could impact the groundwater in the region. SM responded that some medical waste was intercepted at the international POE which later turned out to be food coloring. There were several news reports on this issue in regards the initial story and follow-ups. The CRLF has a medical waste screening program and any waste that was screened was removed from the landfill and the waste generator was informed their medical waste would no longer be accepted. Regarding groundwater protection, the geo-membrane synthetic liners currently used at CRLF exceed EPA standards for landfill liners. CRLF also operates a leachate collection system plus continuous groundwater monitoring activities. The lowest distance between the liner and groundwater is 150 ft.; the rule is 100 ft.

BL recommended the Border 2012 Waste Forum may also be a good group to present this project. BL asked if there has been a study on the net benefit comparing flaring biogas to the combustion process for the waste-to-energy facility. There are no major differences in emissions. The net benefit is on utilizing the combustion emission to produce electricity.

Dr. Wen-Whai Li (WWL) asked what modeling was conducted to determine total PM emissions at the CRLF. A total 57 tons of PM with 15.5 tons of PM₁₀ is generated at this site. The CRLF has an active dust suppression system in place which includes application of stable waste from the nearby racetrack. The access roads are also watered by trucks. Dust suppression activities are intensified as a face is worked. Air monitoring and meteorological stations have been operated at this site.

Tom Ruiz commented NMED has been successful at developing dust ordinances in several NM counties & towns. NMED has also developed Natural Events Action Plans for several communities. Since the CRLF is in the city limits, any ordinance to control dust will require compliance at the landfill, and the CRLF will enter into an agreement to assure PM emissions are controlled.

B) Welcome the New Cd. Juarez Ecology Department.

Ana Maria Contreras Vigil welcomed the new Cd. Juarez environmental department (DGE) director and staff to their 1st JAC meeting. Bernardo Escudero is the new director of this office. Hector Sandoval is representing Cd. Juarez at today's meeting. HS presented a summary of the upcoming workplan, challenges, and expectations.

1) DGE will continue with agreements and activities established between previous administrations and Federal and State entities. Agreements with Chihuahua State include continuing the public transit vehicle inspection program.

2) A mobile air monitoring station provided by the State of Chihuahua will be activated as funds become available. This station was previously located at the Bridge of the Americas (BOTA – or Puente Libre).

3) An objective of the DGE is to require the vehicle verification sticker and vehicle inspection program for personal vehicles. The program will be mandatory and require collaboration with other municipal departments to enforce. Preparations will take a few months to establish an

effective program.

4) Another activity involves removing junk and highly-polluting vehicles from Cd. Juarez roadways. This includes providing the owners with financial incentives to purchase new vehicles. Efforts will be made to apply carbon credits under the Kyoto Protocol for vehicles that are destroyed.

5) 4 CAMS will be installed with help from US agencies. Working with the UACJ for technical support and other parties, the CAMS will provide air quality data coverage over a greater extent of the City.

6) The RSD-3000 vehicle monitoring stations to measure vehicle emissions will be activated. This project has institutional support.

7) Cd. Juarez will work to develop HOV (high occupancy vehicle) lanes at the BOTA. Carlos Rincon – EPA El Paso Border Office - stated the HOV lane will be established at the BOTA by December 2007.

8) DGE is developing an update to the regulatory framework. A review of rules & regs is being undertaken to determine which are obsolete and what is needed to move forward.

9) An environmental inspection program is also underway to inspect minor industrial and commercial facilities in Cd. Juarez. Facilities include paint body shops, metal working, woodworking, etc.

10) Other inspections are underway to address nuisances. This includes open burning, noise, and migration of pollution from personal property. This program will involve a campaign to inform the community of rules that are in effect.

11) An environmental education program will be undertaken. Cd. Juarez participates in the environmental education committee which includes professors and students from local schools and universities.

12) An institutional directive involves reducing the time to obtain small business permits and other public information.

AMC indicated she's please with the initial Workplan and looks forward to seeing it evolve. One program she's concerned with is the Vehicle Verification program which has had only 30% compliance through the past years. She believes the program can reach 100% compliance. This program will also help move unusable and old vehicles off the road.

Another item AMC considers important is the regulation of industry and offers all means available from the Federal government for developing industrial statements of operations (COA) to obtain operating information from small businesses. Juarez could be one of the 1st communities in Mexico which implements the COA. In regards regional mobility studies that have been reported for Cd. Juarez, it is important that Juarez develop an urban transportation program to improve the flow of vehicular traffic throughout the city as well as promote public transportation. This wasn't in the plan just described but perhaps it can be added as the new administration evolves.

C) Status of the brick kiln project between State of Chihuahua and City of Juarez
Alba Corral, Ph.D. (DrC) presented an update. The UACJ has been presenting a series of discussions on development of a brickmaking industrial zone outside of the urban region. The purpose of this project is to relocate the brickmakers out of the Cd. Juarez urban area. Several locations have been identified, and the environmental brick kiln is still promoted as a replacement kiln for everyone. The EBK reduces emissions by over 80% vs. traditional kilns.

Several meetings have taken place with the brickmakers to see if they like the proposed locations most of which are south of Juarez on the Casas Grandes Highway. None of the proposed sites were acceptable to the brickmakers. The brickmakers suggested an alternate

site which is inside the city's urban zone. Efforts were undertaken to identify multiple locations to prevent overloading the brick kiln neighborhoods as well as reduce any political tensions that may exist among competing brickmakers.

Several organizations are involved in planning the relocation of the brickmakers communities including the EPA-EP Border office, the IMIP of Juarez, and several industrial chambers organizations. Financing instruments are being sought to fund construction of the new brickmaking neighborhoods including grants and loans.

The ecological brick kiln has been promoted in other parts of Mexico including Cuauhtémoc, Chih., which has over 60 kilns. Other kilns have been built in Tecate, B.C. and Queretaro, Gto. In Tecate, the kiln is built at the same time it is loaded. There are several neighborhoods in Juarez where the modified kiln has been operated with mixed results, but for the most part the kilns are producing quality brick.

El Paso Electric constructed 37 kilns and there are 330 traditional kilns throughout Juárez. Bill Luthans asked why this project is not taking off on its own. Dr.C indicated the brickmakers mainly want the kiln built at no cost to them. Carlos Rincon added that since the brickmakers are being considered for relocation they are postponing construction of new kilns. However, there are brickmakers who are not moving at all so why are they not building the kilns given they reduce emissions and operating costs thereby saving money? Dr.C added that the current kiln is small compared to the traditional kiln. The new kiln holds about 7,000 bricks compared to 10,000 bricks in the traditional kiln.

WWL asked if there is any type of modeling assessment to determine what could be the impact to neighborhoods in which the kilns are located. Dr.C stated modeling is contemplated, but such research has not been undertaken. EB added that there should be some epidemiological assessment done on children who live next to kilns. Dr.C reported some epi studies were conducted of children living in neighborhoods near the brickkilns. High blood lead levels were found in those children compared to children living farther away. Respiratory health studies, however, have not been conducted.

D) Report up to Oct-2007 on the Cd. Juarez I/M program

Ing. Daniel Terrazas (DT) reported this program has been continuing but at minimal strength as the new administration evolves. The program needs to be assessed prior to moving forward during this administration given some issues that developed at the current vehicle verification centers.

DT commented that there was a recent program directed toward the Juarez auto paint body shops. 47 paint body shop owners were trained on using the high-volume low pressure (HVLP) paint guns. Their low-volume high-pressure (LVHP) paint guns were replaced by the HVLP guns. What was surprising is at 15 body shop owners whom participatee at the "Great Spray Paint Gun Trade-out" workshops already use the HVLP guns. As has been reported there are efforts to help convert all body shops to use these guns and improve the painting rooms operated by body shop owners. Most complaints come from people impacted by painters who paint in the open air.

In 2007 about 55,000 vehicles were tested in the Juarez Vehicle Verification Program.

E) NMED PM₁₀ EBAM Project Proposal

Tom Ruiz reported NMED is developing a proposal to deploy 12 continuous PM₁₀ monitors in

the Anapra / Sunland Park region to track the movement of localized PM₁₀ ambient conditions primarily during winter months. Such PM events may impact respiratory health along this section of the U.S.-Mexico Border. Up to 6 monitors will be deployed in Anapra, Chihuahua after which the Juarez DGE will be the permanent recipient of these monitors. It is hoped DGE will include this equipment as part of the network of air monitoring equipment operated by the city. The purpose of this continuous PM₁₀ monitoring equipment is to track the spatial and temporal movement of particulate matter in the Sunland Park, NM region. During winter months there are elevated PM₁₀ concentrations which seem to track from Anapra to Sunland Park following the gradient of the land. PM spikes usually occur between 4PM – 11 PM which correlates with increased traffic into Anapra, home heating, possible open burning, and finally the settling of the dust created during the evening's activities. This system will help determine if elevated PM₁₀ concentrations during stable air condition are causing exceedances which may in time become violations. Such violations would not occur *but for* emissions generated outside the U.S.

F) Discussion on PM issues in SLP, possible dust control strategies, future initiatives
Victor Valenzuela presented a series of topics raised as part of current discussions regarding elevated PM₁₀ conditions in Sunland Park, NM. There is concern the CRLF, mentioned earlier, may be one cause of elevated PM₁₀ conditions in the area. Some possible PM mitigating activities include the following:

- 1) Installing a "Purple Pipe" project at the Sunland Park, NM wastewater treatment plant. Treated wastewater could be pumped from the Mesilla Bolson for dust suppression at the CRLF. This would extend the life of the aquifer and reduce the amount of water pumped for dust control which competes as a source of water for the Sunland Park community.
- 2) Spraying the roadways traversed by the Border Patrol. The BP currently drags tires throughout the desert as part of their intelligence gathering procedures. A watered road would harden the sand improving the impression of the shoe on the smoothed surface.
- 3) Tree planting: increasing the number of trees would eventually help stabilize the soil given the pine needles will drop to the ground should afghan pines be planted.

8. JAC Subcommittee Reports and Discussion

PM - Alba Corral, Ph. D., Chair

- The UACJ is meeting w/ representatives from Cd. Juarez regarding operation of the PM₁₀ monitoring network. A proposal is being developed for the UACJ to operate the samplers. Nothing has been finalized given the recent change in municipal administration.

Mobile Sources - Ing. Daniel Terrazas, Chair

Given Ing. Terrazas was new no new information was provided.

-Data - Mariana Chew, MPA, Chair

No comments provided

-Emerging Issues - Bob Currey, Chair

Bob

Ways and Means – MVC Silvia Castro, Chair

Biol. Brenda Arciniega, State of Chihuahua, reported this committee is assessing methods of increasing the JAC membership by 2 new representatives on each side. Nothing else was reported.

9. Observations and Comments from the Public

-AC stated greater effort needs to be made to make sure all the members are present. AMC commented the JAC has not had participation from PROFEPA for several meetings; she will follow-up with them to assure they participate more often. On several occasions the state government has also failed to attend.

Bob Currey commented that unfortunately the same topics are being covered and it's like the old jailhouse joke. All we need to say a number and we'll know what the topic is. Bob's comment was #2.

-Bill Addington, Sierra Club, stated re: the NEAP, the city & county should require that land scraped and graded for future construction should be re-vegetated if it is going to not be developed soon after it is disturbed. The City planning department currently allows land to remain unmaintained after being disturbed, and this allows dust to be kicked up during wind events. 2nd what Robert Ardivino mentioned is correct re: what the Border Patrol does to drag tires which causes dust to get kicked up in the air. Also, re: the Wedding samplers, there is a 35% underreporting of PM₁₀ concentrations using these samplers and perhaps a better sampler should be deployed. While he is glad that the Anapra plant will include secondary treatment, he is concerned the 2 plants in Juarez are only primary treatment plants. This impacts water quality in the Rio Grande downstream into Hudspeth County.

-Heather McMurray, Sierra Club, stated that in 2006, Sierra Club released a document with information that had been considered secret by EPA and the U.S. Justice Dept. since 1998. In the report EPA stated to the Justice Dept that ASARCO had handled and incinerated toxic waste at the El Paso Plant for 9 years or more. Since the 2005 air hearing, ASARCO reports it only measures for the emissions from materials used in the smelting process and does not include the toxic waste it was incinerating earlier. She feels that the bankruptcy proceeding currently taking place is a fraud given not all the information is provided to the hearing judge. It is likely the toxic materials were entrained in the air and deposited at locations that could possibly impact the local drinking water supply. BL responded it has been difficult to obtain information regarding the materials which were incinerated and are part of the consent decree.

10. Highlights and consensus items of the meeting.

-NMED will establish contact w/ the new Cd. Juarez administration to deploy 6 EBAM PM10 monitors in Anapra

-Cd. Juarez will initiate the process to add a 4th CAMS.

-The Brickkiln project will continue working with interested parties to find a new location for a brickmaking industrial park outside the urban area.

-EB would like to see epidemiological research conducted at the brickmaking communities.

-The PM committee will look at methods to help reduce PM emissions in Sunland Park.

-El Paso is now in attainment for PM10 according the Chuy Reynoso bringing EP into attainment for all 3 pollutants for which it has violated the NAAQS.

11. Next meeting February 28, 2008 in El Paso, TX.

12. Adjourn