

Minutes

34th 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
Cibeles Convention Center, Cd. Juarez, Chihuahua
Thursday 25 May, 2006

1. Welcome and Introductions

Ana Maria Contreras (AMC) welcomed all to the 34th meeting of the JAC and recognized SEMARNAT Secretary Jose Luis Luege Tamargo. Bill Luthans (BL) welcomed all to the 34th JAC meeting and thanked everyone for attending. BL mentioned the JAC's 10th anniversary celebration which occurred earlier this day. The first JAC meeting was held in November 1996, but the JAC was formally recognized by both countries in May by the signing of Appendix I to Annex V of the La Paz Agreement.

AMC presented Ing. Jose Luis Luege Tamargo (JLLT), Secretary of the Environment for SEMARNAT. JLLT thanked the JAC for the invitation to speak. He indicated the importance of addressing elevated particulate air pollutants primarily from fuel combustion sources. Recently there was modification to NOM 086 which addresses fuels. PEMEX looks forward to complying with the new NOM by 2007 and by 2008 meet levels recommended by EPA. Powerplants, which operate under NOM 148, generate high levels of particulate pollution especially in the Samalayuca area south of Juarez & Tula.

We also plan to modify NOM 085 which addresses sulfur levels. In summary, the highest pollutant source are combustion fuels, vehicle motors which are not well maintained, and above all, transportation systems. If Mexico would initiate a system of electrically driven transport this would help reduce the high air pollutant levels. Radically modifying the public transit system in all aspects will be a foundation and a alternative to individual transportation systems.

JAC members Present:

Mexico	United States
Ing. Ana Ma. Contreras, SEMARNAT	Bill Luthans, EPA, Co-chair
Nicolas Lopez, IMIP	Arch Clouse, TCEQ
Rene Franco Ruiz, MEM	Jim Norton, NMED
Enrique Suarez, FEMAP-SADEC	Jim Parks, Ph.D., UTEP- representing W-W Li
Araceli Salazar, COESPRIS, Juarez	Bob Currey
Alba Corral, PhD.	Mariana Chew, Sierra Club
Jose Mario Sanchez, PROFEPA	Elaine Barron
	Henry Del Rio, EPCCHED

2. Presentation and approval of current agenda.

The agenda was approved with minor adjustment to the order of presentations. Minutes were not available at the start of the meeting and will be submitted during the next JAC meeting.

3. Message from the Co-Chairs

Bill Luthans (BL) stated that we need to address the issue of high wind PM events and not primarily on the particulate matter in the general terms. BL commented he was reviewing a technical document developed by Dr. Wen-Whai Li (WWL) regarding a report presented by New Mexico in 2002 which mentions that little attention has been given to particulate pollution generated by combustion sources.

BL continued that 2 vacancies are available on the JAC-US side and a decision will be made soon to fill those positions.

Arch Clouse (AC) congratulated those who made presentations at the earlier meeting where the JAC was recognized for 10 years in operation. He appreciated the emphasis on the JAC accomplishments made over the past years.

Ana Maria Contreras (AMC) appreciated the support provided by everyone who worked on the *Pro-Aire* document which is the air quality improvement plan for Cd. Juarez. The *Pro-Aire* indicates much work needs to be done especially in the area of particulate air pollution. Much research needs to be conducted on the Mexican side, modifications to the NOMs and conduct emissions inventories to be more precise. In regards particulate matter, several proposals were submitted by UACJ to coordinate operation of the Wedding PM10 samplers in Juarez with the TCEQ monitoring network. Currently, the UACJ has been coordinating efforts w/ the Juarez. Ecology Office.

Biol. Alma Leticia Figueroa (ALF) congratulated all for development of the *Pro-Aire* document. ALF also stated there is much that needs to be done especially in the transportation sector.

AMC stated there is a workshop under development w/ EPA which will look at the SMARTWAY & Transport Retrofit programs. This technology will help transporters learn about methods to reduce pollution and obtain an economic return on their investment through reduced operating costs upon retrofit of cost-saving devices to their vehicles. A workshop is planned for the 1st week of October. All that's left is to identify a venue, etc. We are focusing on strengthening institutions at all 3 levels of government on using this technology. After these workshops we need to develop a strategy to inform the public to assure this technology. We are also developing a manual where we consider methods to finance public transit systems.

ALF asked about possible restrictions to the importation of used vehicles into Mexico. AMC stated she has found a document related to vehicle importation. The document indicates the

vehicle must meet Mexican regulations prior to importation.

5. JAC Discussion on Public Comments - No comments were submitted.

6. REGULAR PROGRAM

6A. Air Quality Report

Victor Valenzuela presented the air quality report. There have been no violations of the air quality standards during the previous 6 months. Bob Currey indicated he wanted data from NMED included alongside the TCEQ data not in a separate slide. VV stated that we have tried to obtain data in format similar to TCEQ but it has been difficult to put manpower into this type of request especially since it takes 4 days of number crunching to prepare a 5-minute presentation. Jim Norton stated he will look into this issue to see if anything can be done.

Bill Luthans offered the services of staff at EPA to prepare a Macro that can format NMED data to fit the TCEQ datasets. AMC indicated that in Tijuana air quality data is uploaded to the EPA AIRS site for public viewing.

VHV indicated that in Juarez 8 PM10 samplers have been deployed by the City. He added these new samplers should be integrated into the entire regional monitoring network and measures taken to provide AIRS numbers and include operation and maintenance by the EPCCHED to assure their continued operation & maintenance.

Some of the continuous PM monitoring data indicated exceedances. VHV explained that exceedances incurred during hi-wind events are not used in consideration of violations of the NAAQS due to these being natural events which are identified by wind gusts exceeding 30 MPH.

AMC stated there were earlier discussions on modifications to the PM10 standard & Mexico would like to participate in the development of this issue.

6B) NMED Presentation on Sunland Park (SLP) Air Quality Issues

Jim Norton, Division Director at NMED, JN applauds the JAC in its initiatives toward air quality improvement in the Paso del Norte region. He reported that in SLP high wind events are not included in the determination of violation of the PM10 standards even though exceedances are observed during these events.

JN stated the following Low-wind exceedances have been observed:

- 6 days in Jul-Dec 2003

- 5 days in 2004

- 3 days in 2005

- Particulate matter spikes during evening inversions

- i. Only at S.P. City Yards, not at Desert View

- ii. First noticed in 2001

NMED has initiated the following control strategies to reduce PM concentrations:

- Open burning: new statewide restrictions (2003)
- Ban on trash burning
- New Smoke Management Rule includes agricultural burners
- PM emissions inventory for Doña Ana County (2003)
- Public information: to SLP city officials, NM public health agencies and committees

Recommendations include:

- Form subcommittee of JAC PM committee to study this issue and develop solutions
- Additional monitoring
- Atmospheric modeling of airflow during inversions
- Develop a proposal for PM controls, for presentation to the Border Environment Cooperation Commission (BECC) for their endorsement and submission to the North American Development Bank (NADBank) for funding NMED:
- Increased public outreach to the Sunland Park community

Jim Parks stated that the area covered in these studies extend further than SLP. Other research he has conducted considers morbidity and mortality. Prof. Mohammed asked what occurs after this information is collected. Does it see the light of day? Is anyone aware of study results? He has data from Columbus, NM on which NMED has not conducted any follow-up. No one at NMED has looked at the data to see what can be done to improve the health and welfare of the citizens of that part of NM. When is this data coordinated to school absentee data or hospital admissions.

AMC indicated that this type of air quality data is beginning to be integrated to epidemiological data. She recommended we begin integrating air quality data with hospital admissions data on a more consistent basis. Bob Currey stated that many issues need to be defined before this type of epidemiological assessment can begin. Is the rise in respiratory health problems caused by air pollutant gases, high winds, transportation emissions, etc.

AMC didn't agree with this suggestion since there is sufficient evidence to indicate there is a relationship between degraded air quality and the increased incidence of respiratory health effects. Multiple studies have already indicated this relationship. Even Harvard University has multiple and varied studies identifying this relationship, epidemiological analysis of the relationship between air quality conditions and respiratory and cardiovascular health are very precise on this issue.

Francisco Nuñez from IMIP commented we need to start making direct comparisons locally between air quality data and hospital admissions and work and school absenteeism. We need to consider relationships that exist that may not be examined. Data exists everywhere in this area; we are just not conducting the appropriate research on a consistent basis. There are studies on respiratory health and air quality that have been done which prove this relationship. Studies have been done by the IMSS (Mexico's Institute of Social Security - or Public Medical Health System) coordinated with the SSA (Secretariate of Health). But once again, where does the data reside? No one knows. Its like a black hold of data which never

sees the light of day.

6C) Paso del Norte Road Paving Initiatives.

6Ci) Henry del Rio reported that in El Paso a small percentage of streets remain to be paved. El Paso is required to pave roadways to be in compliance with the PM10 State Implementation Plan. The City of El Paso developed a document published May 17, 2006 indicating all efforts undertaken to comply with the SIP.

6Cii) Nicolas Lopez, from IMIP, was asked how road paving projects are financed in Juarez. There is a program called SUMA where citizens fund part of a paving project in their streets. Participation is difficult to achieve due to the economically disadvantaged nature of the population in under developed areas so those streets will continue to be unpaved. However, regardless of how many funds are available, it would be very difficult to pave all the roads in Juarez which remain unpaved.

NL showed a map of Juarez from 5 years ago and a current map which indicated the advances achieved in paving roads in Juarez. 5 years ago roughly 50% of roads were unpaved. Currently at least 45% of roads remain unpaved. Most investment in infrastructure is going toward the parts of the city that are growing toward the East and South. Previously people would occupy a region as squatters then infrastructure development would follow. Currently, the infrastructure is developed then families move in. Therefore there is more control in development of the community.

AMC commented that the IMIP needs to be in contact w/ her staff at SEMARNAT to see how the federal government can help on this issue. BL asked if there is a street sweeping program in effect. NL stated that there is a street sweeping program in effect, but it is small and the fleet of street sweeping trucks is small so only the primary streets are swept. We will get a better idea of this program for the next meeting.

6Ciii) Dr. Alberto Ramirez from BECC commented on road paving projects conducted by this organization in urban regions. Since the change in the BECC mandate road paving projects have been on the rise, and one of the early projects was done in Juarez. Several projects are under consideration for certification by BECC. Under the new BECC General Director there has been an initiative to improve communicating data and information to the public. There are new initiatives with the Pan American Health Organization to conduct epidemiological research.

6D) El Paso Electric Brick-Kiln PM emissions reduction initiative. Luis Ito (LI), Environmental Director at EPE, stated that in 1997 the State of Texas implemented a law to reduce NOx emissions from grandfathered electric power plants in the State. While emissions reductions were achieved at the Newman Plant in NE El Paso other emissions reductions were sought throughout the region. Some initiatives were underway to reduce air pollution emissions at the Cd. Juarez brickkilns and EPE joined this effort. After several years of research on the brickkiln emissions, a new kiln design was developed. Each new kiln reduces 3.3 tons per year of emissions. EPE is applying emissions reductions from 5 kilns toward the emissions

reductions required at the Newman plant. However, to date EPE continues constructing and improving kilns in Juarez. Up to 60 kilns may be constructed in Juarez by EPE.

Ing. Mariana Chew added that alongside the importance of analyzing financing mechanisms for these projects, rules and regulations, and the multiple variables required to achieve these projects, efforts to communicate these project to the community must be undertaken. If not, these demonstrations of pollution reductions may not have wide-spread use. LI stated one of the shortcomings on this project was a method of funding the continued maintenance of these kilns. Given the kilns are constructed of adobe block, occasional rain storms tend to erode the exterior walls while problems in the interior structure tend to be chronic. Of 31 kilns constructed by EPE, only 8 continue operating since the kiln owners are very self-starters and maintain their own kilns.

Dr. Alba Corral, UACJ, added there have been several evaluations of the kilns EPE constructed. While some of the kilns are underutilized there are different methods displayed by kiln owners. Basically the brick makers are divided into 2 groups. Those who support this project and discuss its advantages and those who do not accept the kiln and discuss all its faults. These evaluations are conducted every year and regardless, the kiln presents many advantages regarding reduced fuel consumption, firing time, and emissions. There are discussions among the brick making community regarding the possibility of the owners of the kilns who don't like their kiln and are not working it to sell it, but due to certain social issues no one does anything since they view the land on which the kiln was built as their inheritance; their own piece of land. There are also efforts to build brickkiln communities specifically for the purpose of brick making. Currently, brick makers homes' are located just feet from their kiln. This is a health hazard to their families.

AMC commented there is a need to extend this technology and methodology to other parts of the community.

7) Subcommittee reports

7A) - PM Committee - Alba Corral reported there will be meetings to continue discussing brickkiln initiatives and future efforts to reduce PM emissions.

Victor Valenzuela reported that an initiative is underway to reduce PM levels in the Anapra region by planting at least 1000 trees. This initiative will help create a dust barrier between Anapra and Sunland Park and perhaps reduce PM emissions in that area. Participants that have been requested to participate are the Texas Forest Service, New Mexico Environment Department, and Grupo Cementos de Chih. which operates a nursery at the Samalayuca plant. Reforestation is an initiative within the JAC strategic plan.

7B) Data Committee - Mariana Chew stated it took a while before she accepted taking charge of this committee. What she needs to do is take a look at what kind of data is available, what infrastructure methods are available for storing and also reporting this data, and her first efforts will be to assess what there is. So, to begin, she will start to compile air quality and local meteorological data and place in a format which can become available to the public. As such, a single comprehensive historical air quality database will be established.

This will be done because one of the central points of discussion continues to be the relationship between air quality and public health. Once the groups on the JAC who conduct public health research compile their data we can begin the process of establishing a nexus between the two. We will require a high level of technical support to compile and present this type of data.

Arch Clouse commented that there already exists a document which identifies the criteria and methodology to follow for collecting and interpreting data. Bob Currey added that three groups: air, water, and waste, no one has been able to obtain any type of data.

AMC commented the shortcomings of those groups justify the need to pull as much data as possible and incorporate processes and regulations. We primarily need patience given the upcoming elections and the pace may slow for the short term and some activities may stop altogether. What is important is that we continue meeting to give continuity to all the initiatives already undertaken.

BL reviewed the meetings agreements:

- Improve the air quality presentation to try to include NMED data in the TCEQ & Juarez datasets.
- Identify and name an industry representative on the US side.
- Improve the exchange of information regarding methodology and post-generation use of such data.

8) Next meeting date: August 24, 2006 in El Paso.

9) Adjourn.