

Executive Summary
Thirteenth Meeting of the
Joint Advisory Committee on Air Quality Improvement for the
Cd. Juárez, Chihuahua / El Paso, Texas / Doña Ana County, New Mexico Air Basin
El Paso City County Health and Environmental District - WIC Training Center
2 December, 1999

JAC Members Present:

For Mexico:

Ing. Luis Raul Cordova - alternate for Dr. Victor Hugo Paramo - National Institute of Ecology

Quim. Ma.del Pilar Leal - PROFEPA

Dra. Andrea Javalera - Secretariat of Health

Ing. Cesar Nuñez - Alternate for Ing. J. L. Canales - Ecology Dept. - The State of Chihuahua

Biol. Alma Leticia Figueroa Jimenez - Cd Juarez, Dept of Urban Development and Public Safety

Ing. Rene Franco - Mexican Ecological Movement

Ing. Francisco Alfaro - Alternate for Dr. Enrique Suarez-Toreillo - FEMAP

Quim. Adrian Vazquez - UACJ

For the U.S.:

Mr. Bill Luthans - Co-Chair - USEPA Region 6

Mr. Fabian Macias - alternate for Ms. Cecilia Williams - NMED

Mr. Archie Clouse - TNRCC

Mr. Tom Martin - ASARCO

Dr. Carlos Rincon - Environmental Defense Fund

Mr. Jesus Reynoso -El Paso City-County Health and Environmental Dist.(EPCCHED)

Dr. Wen-Whai Li - UT-El Paso

Mr. Bob Currey

Welcome and Introductions

Ing. Luis Raul Cordova (LRC) and Bill Luthans (BL) welcomed all to the 13th meeting of the JAC. BL mentioned there was a meeting of the Air Workgroup (AWG) in MX, DF this past week. LRC mentioned that several activities of the JAC were discussed at the AWG meetings and perhaps we will be discussing these as this meeting progresses.

Presentation and approval of current agenda.

The agenda was accepted. BL indicated that perhaps there would be no discussion on items presented on the consent agenda. LRC stressed that prior to sending out the agendas to JAC members he=d like to see better and more coordination between the administrative liaisons.

Approval of the minutes of the 2 September meeting

The minutes were approved.. Minor typographical adjustments were suggested by Bob Currey.

Announcements

New Members

Mexico's Health Secretariate (SSA) has submitted a notice to the MX part that Dra. Rosalba Rojas will be pursuing Advanced Studies in the Public Health Field in the US. Dra. Andrea Javalera will be the new member representing the Health Secretariate.

Angel Peralta has notified the JAC that he cannot continue as a member on the JAC. As a result the Mexican side will begin the process of nominating and selecting a new member.

Asarco

Tom Martin (TM) stated that **Asarco** was recently purchased by Grupo Mexico 3 weeks ago. The leadership has been changed. Javier Garcia is the new director. The company will continue operating as Asarco Inc.

Air Waste Management Assn.

TM also announced the formation of an Air & Waste Management Association (AWMA) Chapter in El Paso; this would be a chapter of the SW Section of the AWMA. More information and an application for membership is available at the AWMA website - www.AWMA.org.

Ecology Laws for the State of Chihuahua

LRC indicated that public hearings currently are taking place across Chihuahua to reform, sunset or modify the Ecology Law for the State. On 12 November a public hearing was held in Juarez. Modifications to the State Ecology laws are identified as a Priority Project on the JAC Strategic Plan.

Clean Industries Program of Mexico

The 3rd Annual Certification of Clean Industries occurred on 17 Nov. 1999. 12 industries in the State of Chihuahua were certified; 9 of those certifications were presented to industries located in Cd. Juarez.

Consent Agenda

JAC Strategic Plan

Efforts are underway to edit, update, and translate the Strategic Plan to present for publication one document in English and Spanish. A copy of the Strategic Plan (English version) was submitted to the co-chairs

Update on Dedicated Commuter Lane (DCL)

The DCL was dedicated and began operation on 7 September.

Update on Used Tire Initiative for Cd. Juarez

Currently over 4 million tires are located at the Cd. Juarez landfill. Hundreds more are imported into Juarez each month aggravating the situation. A proposal was submitted to and approved by the JAC to draft a letter for submittal to the AWG requesting that the BECC provide financial

assistance to conduct a feasibility study for the purchase of a tire-shredding machine the shreds which could be used for a variety of purposes.

Epidemiological Surveillance Study

An Epidemiological Surveillance Study Associated with Air Pollution is planned for Cd. Juarez by the Health Services for the State of Chihuahua. Dra. Andrea Javalera will be involved with the management and outreach on this project.

Updates

Air Quality Report -

-Air Quality report for the 3rd quarter (Jul-Sept 1999)

Joe Rodriguez (JR), EPCCHED, presented a consolidated report for the 3rd quarter of 1999 (JUL-Sept. No exceedances of the PM10 standards were reported. El Paso exceeded the O3 standard on Oct 1 reaching 126.5 ppb. The exceedance occurred at CAMS 41 (Chamizal) at 11am. Wind conditions at that hour were calm, and a windrose indicated that winds were from the west. Victor Valenzuela added that an isopleth diagram for atmospheric pressure over this region indicated that the ridge of high pressure was in place on 9/30.

-PM2.5 Report for Southern Doña Ana County, NM

Fabian Macias (FM) presented PM2.5 data for Doña Ana County from continuous and non-continuous PM2.5 monitors and samplers in So. Doña Ana County. On September 30 a violation of the PM2.5 NAAQS was observed. Wind rose plots of NMED meteorological data indicate that the predominant wind direction on this day was from the east and southeast of Sunland Park. It had also been observed that data from one of the PM2.5 TEOMs, continuous PM2.5 monitors and PM2.5 non-continuous samplers are in a similar concentration range.

-Cd. Juarez Air Quality Report

Luis Carlos Salmeron presented air quality trend data for Juarez. His findings for Juarez indicate that annually averaged maximum ozone concentrations have not significantly changed during the 1997-1999 time frame. Annually averaged PM10 concentrations have not significantly changed, and the Advanced Transformer site continues to observe the highest concentrations of PM10.

Paso del Norte Clean Cities Coalition

Veronica Carbajal provided an update on the first Ozone Action Days (OZAD) Program in the Paso del Norte Region. Over 30 media sources in both El Paso and Juarez are given media advisories regarding OZADs. Data was presented providing maximum 1-hr O3 concentrations at the TNRCC-El Paso monitoring sites during the May 1- Oct.31 period. We had 1 exceedance (126.5ppb) on Oct. 1. 14 OZADs were called for the season. On one OZAD, O3 concentrations reached 100ppb; the majority of OZADs had max. O3 values in the 60ppb range. We had several days not called as OZADs where max 1-hr O3 concentrations were between 95 & 108 ppb.

The OZAD Program met recently to discuss forecasting methods used for calling an OZAD. TNRCC didn't make use of the cancellation mechanism which made it possible to cancel an

OZAD within a few hours after its announcement. Another suggestion is the Aeyeball forecast@. TNRCC staff and experienced, qualified individuals who have been operating ambient monitoring stations for many years have a high degree of intuition as to O3 concentrations and by looking at the color of the air are able to estimate ozone conditions for the following day.

Cd. Juarez 1999 Vehicle (Emissions) Verification (VV) Program

Cd. Juarez, in July, began enforcement of a VV Program as established under Article 20 of the State of Chihuahua Transit Laws. Biol. Alma Leticia Figueroa (ALF) provided an update on the success of this program. 95,000 vehicles or 25% of the fleet has been inspected to date. For the year 2000, a goal has been set of inspecting 50% (or 200,000) of Juarez vehicles. The Juarez air quality program, known as **Cielito Limpio**, is being promoted and receiving widespread approval. The VV sticker will include this theme.

-Oxygenated Fuels In Juarez

Biol. Guadalupe de la Luz, INE, presented a report on current activity to date. In the month of Oct., PEMEX sent to INE an official notice that oxyfuels are being distributed in Jz. Preliminary lab data indicate the gasoline in Jz has an oxygen content of about 1.2%. El Paso=s wintertime oxygenate fuel program calls for 2.7% oxygen. In this respect the EPCCHED & Jz Ecology office have teamed up to check Cd. Juarez oxygenated gasoline. ALF indicated that EPCCHED was called to analyze gasoline samples collected by DGE from 55 PEMEX stations. Analysis made by EPCCHED verifies these points. ChR indicated that El Paso gasoline distributors began selling oxyfuels thru the pipeline on Oct.1. They=re using MTBE. The majority of samples contain 1.5% & 1.6% oxygen. These concentrations are typical of what happens when an oxygenated fuels program starts up. One can expect anywhere from 2-10% CO reduction per each % oxygen content in gasoline. Given these factors you can expect a CO reduction of 12%. Since vehicles in Jz are much older and don=t have oxygen sensors you may achieve a greater reduction of CO emissions. About 400 barrels (bbl) per day are purchased w/ 2.2% oxygen. Demand is about 800 bbl/day. Thus PEMEX may be mixing 50% O2 and non-O2 gasoline to obtain those concentrations. He=d like the JAC to ask PEMEX to oxygenate w/ more O2 & use ethanol given several published reports on the environmental impacts caused by MTBE. Most people of Jz come to EP to purchase gasoline due to its lower cost giving Jz a defacto O2 gas program.

Haze and localized dust issues.

ChR stated that for many years ASARCO was to blame for the regional haze. But the facility has been closed for 10months. He showed a video indicating that just west of ASARCO there are 2 brickplants (one in New Mexico, one in Juarez) which generate high levels of fugitive particulate emissions. NMED was asked to look into the NM plant. Moving further south into the basin & across both cities the video shows haze covering the airshed. Its obvious that we have a PM problem. We need to reduce open burning of the trash. There also is a rock quarry in the EP side where problems are evident, and he=d like to see this issue addressed. In Jz the trash collection system is old, and people who come from the interior of the country are accustomed to burn their trash. Unfortunately they don=t know that what they are burning such as plastics are

highly toxic. The Sun Metro monitoring site (CAMS 40) has the highest PM concentrations in TX. Going back to 1997, Sun Metro has had highest values for PM & Air Toxics.

-International Supplemental Environmental Projects (ISEPS)

Scottie Aplin, TNRCC SEP Coordinator indicated that 2 items merit discussion: SEPS in Texas with limitations & growth in that area, and ISEPs as part of the TX enforcement process. She prefaced the discussion by stating that a bad settlement is better than a good fight. Resolving problems you not only fix the problem but also lay the framework together to resolve problems in the future. During the settlement process the entity under enforcement can choose to invest in an environmental enhancement program such as recycling, composting, waste water treatment programs, etc. By virtue of doing SEPS those that have violated the law can take steps to resolve the problem. We consider approving the program that goes above & beyond what the law requires in the community where the violation occurred. One factor to consider is that the project be voluntary. Some may choose to work on a SEP, and there are limitations on requiring someone do something they don't want to do. Many facilities in TX are expressing interest in SEPS stating the positive feedback to and from the community where the investment occurs.

Regarding ISEPs, there are strong shared common interests and environmental concerns such as air, water, etc. One issue evaluated is ability to do an ISEP to benefit TX but on the MX side of the border. The TX legislature under the leadership of Sen. Eliot Shapleigh entered a statute to do ISEPS and enabled the TNRCC to do ISEPS on the MX side of the border if those benefits have a positive impact in TX. Criteria have been established to allow the agency to determine if a proposed ISEP does just that. An ISEP was negotiated w/ a local refinery that benefits all 3 communities in the Paso del Norte airshed. The ISEP is a Cash for clunkers program designed to purchase a number of vehicles to reduce mobile source emissions.

Crafting Efficient Policies to Control Emissions From Brickkilns in Cd. Juarez

Resources for the Future researchers are implementing use of ISC-3 (Industrial Source Complex Dispersion Model) to estimate pollutant concentrations from Cd. Juarez brickkilns and propose methods of controlling emissions to improve public health. Dr. Allen Blackman from RFF provided some preliminary results on the Benefits and Costs of Alternative Pollution Control Strategies for Traditional Brick Kilns in Cd. Juarez. Objective of research is to develop efficient emissions control strategies / \$ spent. Strategies were: Switch to cleaner fuels, use lower cost technologies, ban firing, and target key brickmakers for these strategies. A 5-step methodology was developed which included: development of an ISC-3 dispersion model; estimation of the health impact of concentrations; place a dollar value on impacts (costs), benefits, and willingness to pay. Regarding the air dispersion model we look at PM10 for 2 reasons: 1) its thought to have most severe health impacts, & 2) one can develop epidemiological statistics.

Update on Regional Forestry Programs

As indicated in its Strategic Plan, the JAC proposes to strengthen reforestation programs to reduce air pollution by controlling soil erosion and sequestering CO₂.

City of Socorro Tree Program

Delia Ponce, City of Socorro, stated that The City of Socorro is 14 yrs old with a population of 30,000 and is the 3rd fastest growing community in TX.. The City=s first tree planting program developed from a grant from the TX Forestry Service. City of Socorro applied for the grant & was awarded \$20K to plant 50 trees. In 1996, Socorro negotiated with TX A&M University to obtain a 10 acre park. One contingency on transfer of this land was the development of the property into a park w/in 1 year. After the land was received the city planned and promoted planting over 100 trees. In 1998 the City of Socorro was approached by EPIC Components, a subsidiary of ALCOA Fujimora which is involved in a 1,000,000 tree project in 24 countries. This program started w/ 50 trees for the Rio Vista Community Center Complex. In 1999, the most current project under support from EPIC components is for improvement of the Socorro Mission District developed thru an interlocal agreement between the City of Socorro and the diocese. This project also involves TxDOT.

Texas Forest Service / West Texas Urban Forestry Council

Oscar Mestas, TX Forest Service (TFS) and Regional Urban Forester stated the TFS is concerned about trees in cities & improving the urban environment within those cities. Mission of the TFS is to help TX cities develop self-sustaining tree programs. His job is to have a program to keep trees going, replace them & keep the urban forest healthy. Most of the trees in this area are adapted and maybe not indigenous. TFS helps w/ research and can answer questions regarding the sequestration of carbon which depends on size, growth rate, and type of trees. Regarding carbon sequestration, a tree can sequester about 13 lbs - 175 lbs / yr of carbon. Many studies by American Forest Service have identified the benefits of an urban forest.

John White. WTUFC (a non-profit 501c3 corporation made up of community volunteers) indicated that areas of concern for the WTUFC are proper tree care & selection for this community. Many species are not adapted or indigenous to this community, but over time they have adapted to the climate in this Chihuahuan Desert region. The WTUFC developed a tree planning guide and posters are available on indigenous & adapted tree species. The WTUFC has a community trees program going on at Montwood HS. It also recently had a regional trees conferences where 150+ persons attended.

Cd. Juarez Parques y Jardines (Parks and Gardens) Department Tree Program

Epifanio Hernandez from Parques y Jardinez indicated that in Juarez there are 645 Community parks, 300 public parks, the Chamizal and several orchards/nurseries containing over 20,000 trees for future planting. In the Cd. Juarez Central Park and Borunda Park, a rental fee is charged to vendors and the funds are paid to maintain the park. There is also a Municipal Reforestation Committee which formed about 4 yrs ago. This committee has a wide participation from all sectors of the community. The Parks Dept. has developed an inventory of different regions in Jz where tree planting activities are being implemented. Species are developed with regard to water resource availability and drought resistance. Most important is to have an educational program in place before planting trees to learn about climate and soil. Community participation is also essential.

The El Paso Inspection and Maintenance Program

The El Paso I/M program includes enforcement actions and detection of fraudulent stickers and practices. Rose Chavez, Field Supervisor for EP I/M program, provided a presentation on the enforcement program as well as statistics on vehicle passing rates. An I/M program is in force in El Paso and 3 other State of TX Counties which are in nonattainment for one or more ambient air quality standards in which mobile source are a major component of air quality degradation. The program is enforced for vehicles which are registered & primarily operated in those designated counties & between the ages of 2-24 yrs. El Paso has 247 I/M stations w/ approx 700 inspectors. DPS has 4 technicians in the field; this averages to about 62 stations / tech. Analyzers need to be checked on a quarterly basis by the technician to assure that the inspections that are given are within acceptable parameters. DPS also has 1 covert technician who takes 1 of 3 covert vehicles to assure the analyzers are measuring appropriate emissions. DPS has 4 different enforcement actions: station warning, citation, inspector license suspension, license revocation. Enforcement actions can result from a motorist complaint, or fraudulent certification investigation. So far the DPS is pleased w/ EP program. They also go out to different parking lots & check visually to do compliance testing. El Paso has an 80% compliance rate w/ 10% illegal stickers; the other 10% have out of state plates.

Agreements:

ALF would like to have the JAC send a letter to Border 21 Cochairs to send a letter to BECC to work w/ used tires in a fashion within the purview of the BECC.

The Cochairs will send a letter to PEMEX to try to increase the oxygenate concentration to further reduce CO emissions from mobile sources.

Next Meeting: March. No specific date set.

Adjourn.

Draft Minutes
Thirteenth Meeting of the
Joint Advisory Committee on Air Quality Improvement for the
Cd. Juárez, Chihuahua / El Paso, Texas / Doña Ana County, New Mexico Air Basin
El Paso City County Health and Environmental District - WIC Training Center
2 December, 1999

JAC Members Present:

For Mexico:

Ing. Luis Raul Cordova - alternate for Dr. Victor Hugo Paramo - National Institute of Ecology

Quim. Ma.del Pilar Leal - PROFEPA

Dra. Andrea Javalera - Secretariat of Health

Ing. Cesar Nuñez - Alternate for Ing. J. L. Canales - Ecology Dept. - The State of Chihuahua

Biol. Alma Leticia Figueroa Jimenez - Cd Juarez, Dept of Urban Development and Public Safety

Ing. Rene Franco - Mexican Ecological Movement

Ing. Francisco Alfaro - Alternate for Dr. Enrique Suarez-Toreillo - FEMAP

Quim. Adrian Vazquez - UACJ

For the U.S.:

Mr. Bill Luthans - Co-Chair - USEPA Region 6

Mr. Fabian Macias - alternate for Ms. Cecilia Williams - NMED

Mr. Archie Clouse - TNRCC

Mr. Tom Martin - ASARCO

Dr. Carlos Rincon - Environmental Defense Fund

Mr. Jesus Reynoso -El Paso City-County Health and Environmental Dist.(EPCCHED)

Dr. Wen-Whai Li - UT-El Paso

Mr. Bob Currey

Welcome and Introductions

Ing. Luis Raul Cordova (LRC) and Bill Luthans (BL) welcomed all to the 13th meeting of the JAC.

Announcements

BL mentioned there was a meeting of the Air Workgroup (AWG) in MX, DF this past week. LRC mentioned that several activities of the JAC were discussed at the AWG meetings and perhaps we will be discussing these as this meeting progresses.

Presentation and approval of current agenda.

The agenda was accepted. BL indicated that perhaps there would be no discussion on items presented on the consent agenda. LRC stressed that prior to sending out the agendas to JAC members he=d like to see better and more coordination between the administrative liaisons & he=d like to see the adjustments to the Draft Agenda completed to preclude problems in coordinating the agenda & preparing presentation materials.

Carlos Rinconn (CR) indicated that currently there is no quorum and adjustments to the agenda should be made until we reach a quorum. A quorum was established within the half hour.

Approval of the minutes of the 2 September meeting

The minutes were approved.. Minor typographical adjustments were suggested by Bob Currey.

Announcements

New Members

Mexico's Health Secretariate (SSA) has submitted a notice to the MX part that Dra. Rosalba Rojas will be pursuing Advanced Studies in the Public Health field in the US. Dra. Andrea Javalera will be the new member representing the Health Secretariate. Dra. Javalera obtained her Masters Degree from the UACH (Universidad Autonoma de Chihuahua) where her work centered on hygiene. She is the Director of SSA in Chihuahua involved in public health studies throughout the State of Chihuahua.

Angel Peralta has notified the JAC that he cannot continue as a member on the JAC. As a result the Mexican side will begin the process of nominating and selecting a new member.

Asarco

Tom Martin (TM) stated that **Asarco** was purchased by Grupo Mexico 3 weeks ago. The leadership has been changed. Javier Garcia is the new director. The company will continue operating as Asarco Inc.

CR indicated that prior to the purchase there was an issue about the local plant being shut down for 3 yrs. TM responded that Grupo Mexico has not made a final decision as to the work to take place at the El Paso facility or Southern Peru operations.

Air & Waste Management Association (AWMA)

TM also announced the formation of an Air & Waste Management Association (AWMA) Chapter in El Paso; this would be a chapter of the SW Section of the AWMA. AWMA is a professional association with full membership dues of \$110/yr. He'd like to find out if there is sufficient interest in opening a chapter here. He needs a core membership of 10 members. LRC asked if this invitation is open to an international group. TM responded that AWMA is an international group. Matthew Witosky (MW) indicated that the annual conferences have a considerable educational benefit. More information and an application for membership is available at the AWMA website - www.AWMA.org.

Ecology Laws for the State of Chihuahua

LRC indicated that public hearings currently are taking place across Chihuahua to reform, sunset or modify the Ecology Law for the State. On 12 November a public hearing was held in Juarez.

Modifications to the State Ecology laws are identified as a Priority Project on the JAC Strategic Plan.

Clean Industries Program of Mexico

The 3rd Annual Certification of Clean Industries occurred on 17 Nov. 1999. 12 industries in the State of Chihuahua were certified; 9 of those certifications were presented to industries located in Cd. Juarez. 77 cities across Mexico have become involved in this Environmental audit program which covers Federal / State aspects of Mexico's General Law on Ecological Equilibrium (LGEEPA) and is designed to minimize environmental risks and hazardous waste. The majority certifications were for Industrial Programs addressing issues of environmental risk.

Consent Agenda

JAC Strategic Plan

Efforts are underway to edit, update, and translate the Strategic Plan to present for publication one document in English and Spanish. The Strategic Plan Technical Commission will convene to update the time lines for completion of activities. A copy of the Strategic Plan (English version) was submitted to the co-chairs

Update on Dedicated Commuter Lane (DCL)

The DCL was dedicated and began operation on 7 September.

Update on Used Tire Initiative for Cd. Juarez

Currently over 4 million tires are located at the Cd. Juarez landfill. Hundreds more are imported into Juarez each month aggravating the situation. It was agreed to discuss this issue with the Border XXI Solid Waste Workgroup. A proposal was submitted to and approved by the JAC to draft a letter for submittal to the AWG requesting that the BECC provide financial assistance to conduct a feasibility study for the purchase of a tire-shredding machine the shreds which could be used for a variety of purposes such as a fuel source for cement manufacturing plants, for septic system drain fields, and road-fill.

Epidemiological Surveillance Study

An Epidemiological Surveillance Study Associated with Air Pollution is planned for Cd. Juarez by the Health Services for the State of Chihuahua. Dra. Andrea Javalera will be involved with the management and outreach on this project.

Updates

Air Quality Report -

-Air Quality report for the 3rd quarter (Jul-Sept 1999)

Joe Rodriguez (JR), EPCCHED, presented a consolidated report for the 3rd quarter of 1999 (JUL-Sept. No exceedances of the PM10 standards were reported. Jz had a few days over 100 $\mu\text{g}/\text{m}^3$ (micrograms per cubic meter - standard is 150 $\mu\text{g}/\text{m}^3$ for a 24hr period). El Paso exceeded the O3 standard on Oct 1 reaching 126.5 ppb. The exceedance occurred at CAMS 41 (Chamizal) at 11am. Wind conditions at that hour were calm, and a windrose indicated that winds were from the west. Victor Valenzuela added that an isopleth diagram for atmospheric pressure over this region indicated that a high pressure ridge was in place over El Paso on 9/30. Data was obtained from the Atmospheric Resources Laboratory of NOAA; www.arl.noaa.gov.

-PM2.5 Report for Southern Doña Ana County, NM

Fabian Macias (FM) presented PM2.5 data for Doña Ana County from continuous and non-continuous PM2.5 monitors and samplers in So. Doña Ana County. 2 PM2.5 non-continuous samplers operate on a 3 day sampling scheme and 3 PM2.5 monitors operate continuously. On September 30 a violation of the PM2.5 NAAQS was observed. Wind rose plots of NMED meteorological data indicate that the predominant wind direction on this day was from the east and southeast of Sunland Park. It had also been observed that data from one of the PM2.5 TEOMs, continuous PM2.5 monitors and PM2.5 non-continuous samplers are in a similar concentration range. The question was asked if NMED operates official weather stations? FM responded that all NMED weather stations are official when quality assurance project plans and standard operating procedures for obtaining meteorological data are approved by the US EPA for their operation.

-Cd. Juarez Air Quality Report

Luis Carlos Salmeron presented air quality trend data for Juarez. His findings for Juarez indicate that annually averaged maximum ozone concentrations have not significantly changed during the 1997-1999 time frame. Annually averaged PM10 concentrations have not significantly changed, and the Advanced Transformer site continues to observe the highest concentrations of PM10. Also for the 9 month period of 1999 ended in September, the sampling day with the highest PM10 concentrations appeared to be Sunday.

Paso del Norte Clean Cities Coalition

Veronica Carbajal provided an update on the first Ozone Action Days (OZAD) Program in the Paso del Norte Region. Data was presented providing maximum 1-hr ozone concentrations at the TNRCC-El Paso monitoring sites during the May 1- Oct.31 period. We had 1 exceedance (126.5ppb) on Oct. 1. This day was not an official OZAD for El Paso since the OZAD office was not staffed due to funding problems. 14 OZADs were called for the season. On one OZAD, O3 concentrations reached 100ppb; the majority of OZADs had max. O3 values in the 60ppb range. We had several days not called as OZADs where max 1-hr O3 concentrations were between 95 & 108 ppb. The OZAD program was unfunded until after October 2 so an extensive outreach program was difficult to conduct. However, there continues to be a great level of support from the community to include media, NGO=s, and Federal and State Agencies which help announce and promote OZADs.

Participants in the OZAD Program recently met to discuss forecasting methods used for calling an OZAD. With the addition of 2 more monitoring sites (one in Socorro, the other in NE El Paso) the monitoring network will be expanded and the forecasting capability may improve. The National Weather Service (NWS) provides TNRCC data from the NWS stations, but 10 of the 14 forecasted OZADs didn=t meet the weather criteria. This may change in a couple of years when the NWS changes its modeling format. TNRCC didn=t make use of the cancellation mechanism which made it possible to cancel an OZAD within a few hours after its announcement. Another suggestion is the Aeyeball forecast@. TNRCC staff and experienced, qualified individuals who

have been operating ambient monitoring stations for many years have a high degree of intuition as to O₃ concentrations and by looking at the color of the air are able to estimate ozone conditions for the following day. This Aeyeball model@ may be used to assist in improving the forecasting next year.

CR indicated that given the excellent media response to the OZAD Program it would be a good idea to survey the community to assure that it did its share for clean air. VC indicated that the only promotion for the hotline is commercials. Over 30 media sources in both El Paso and Juarez are given media advisories regarding OZADs.

Cd. Juarez 1999 Vehicle (Emissions) Verification (VV) Program

Cd. Juarez, in July, began enforcement of a VV Program as established under Article 20 of the State of Chihuahua Transit Laws. Biol. Alma Leticia Figueroa (ALF) provided an update on the success of this program. 95,000 vehicles or 25% of the City=s vehicular fleet has been inspected to date. For the year 2000, a goal has been set of inspecting 50% (or 200,000) of Juarez vehicles. The Juarez air quality program, known as **Cielito Limpio**, is being promoted and receiving widespread approval. The VV sticker will include this theme. Given 50% of Juarez vehicles are pre-1986, the difficulty is passing the emissions test is present. As a result, vehicle diagnostic fairs continue throughout Jz to assist vehicle owners in tuning their vehicles and doing whatever is possible to reduce vehicular emissions. Also the Municipality of Chihuahua is developing a VV program of its own. In Jz there is increased enforcement of the VV Program, and people are being fined for not having the VV sticker. Several groups are involved in supporting a program to train vehicle mechanics. The goal of this training program is to not only reduce emissions, but also to generate confidence in the community and reduce complaints of unnecessary repairs. Another program is under development to have maquilas operators tune their company vehicles 2x/y (two times per year). Also, there is a certification program in operation of the BAR90 Vehicle Emissions analyzer. Y2K issues regarding the Bar90 Analyzer are a concern. Since few people are involved in the VV program, they do not wish to invest in new analyzers. There is a need to develop a City-operated VV station when the vehicle diagnostic fairs take place. The City would like to obtain 2-Bar 90 Analyzers for use at these events.

Oxygenated Fuels In Juarez

-Summary: The Joint Advisory Committee and the Air Work Group support the development of an oxyfuels program for Cd. Juarez. Various communiques between PEMEX and INE have been exchanged addressing the supply, cost, and source of oxygenate for fuel that could be distributed for retail sale in Juarez. Biol. Guadalupe de la Luz, INE, presented a report on current activity to date. In the month of Oct. PEMEX sent to INE an official notice that oxyfuels are being distributed in Jz. Preliminary lab data indicate the gasoline in Jz has an oxygen content of about 1.2%. While El Paso=s wintertime oxygenate fuel program calls for 2.7% oxygen perhaps the addition of oxygenate to Jz gasoline will improve air quality. It would also be good to assure the data provided by PEMEX is accurate.

In this respect the EPCCHED & Jz Ecology office have teamed up for this effort. ALF indicated that EPCCHED was called to analyze gasoline samples collected by DGE from 55 stations. Analysis made by EPCCHED verifies these points.

ChR stated that oxyfuels have been used in EP since 1992, and results have been dramatic. There were 15-16 CO exceedances per year before the program started. We are down to zero last yr & this year we haven't seen any exceedances. Our data indicate that Oct. is the crucial month for compliance w/ the oxyfuels program. Regarding the Jz oxyfuels program, ChR indicated that El Paso gasoline distributors began selling oxyfuels thru the pipeline on Oct.1. They're using MTBE. The majority of samples are within 1.5% & 1.6% oxygen. These concentrations are typical of what happens when an oxygenated fuels program starts up. One can expect anywhere from 2%-10% CO reduction per each % oxygen content in gasoline. Given these factors you can expect a CO reduction of 3%-16%. Since vehicles in Jz are much older and don't have oxygen sensors you may achieve a greater reduction of CO emissions. About 400 barrels (bbl) per day are purchased by PEMEX w/ 2.2% oxygen. Demand is about 800 bbl/day. Thus PEMEX may be mixing 50% O2 and non-O2 gasoline to obtain those concentrations. He'd like the JAC to ask PEMEX to oxygenate w/ more O2 & use ethanol given several published reports on the environmental impacts caused by MTBE. Most people of Jz come to EP to purchase gasoline due to its lower cost giving Jz a defacto O2 gas program.

Regarding enforcement of the EP oxygenated fuels program typically in October the problems are based on mismanagement of inventories. Now that the program is in full swing we undertake a more complete testing of tankers, facilities & UST=s. Regarding the summertime low-RVP fuels program distributors can distribute low-RVP in May but the full program goes into effect in June.

ChR was asked where the 2.7% oxygenate value for EP fuels comes from. TNRCC established the value & submitted it to EPA as part of the CO SIP. BL indicated that as an initial review of the EP oxygenated fuels program he's like to know how the 2.7% standard was arrived at since apparently EPA is going to Mobile 6, and that value may not be continued.. We should do this prior to sending a letter to PEMEX to achieve a higher oxygen content. ChR added we should look at the CO monitors in Jz since we've seen CO values 3x higher than in EP. If we consider Mobile 6 modeling we may determine that we should reduce the oxygen level to those similar to Phoenix & other cities which have a 2.2% oxygen content. CR added that we should look at a congratulatory position on our letter and continue working toward a goal of increasing the O2 content or at least increasing the CO reductions. We can use the RSD to provide new emissions data to determine if any reductions are achieved.

Haze and localized dust issues.

ChR stated that for many years ASARCO was to blame for the regional haze. But the facility has been closed for 10months. He showed a video indicating that just west of ASARCO there are 2 brickplants (one in New Mexico, one in Juarez) which generate high levels of fugitive particulate emissions. NMED was asked to look into the NM plant. Moving further south into the basin &

across both cities we see the haze covering the airshed. Its obvious that we have a PM problem. We need to reduce open burning of the trash so a request has been made by the PDNCCC (Paso del Norte Clean Cities Coalition) to provide used equipment to Jz for trash collection in western Jz. There also is a rock quarry in the EP side where problems are evident, and he=d like to see this issue addressed. In Jz the trash collection system is old, and people who come from the interior of the country are accustomed to burning their trash. Unfortunately they don=t know that what they are burning are highly toxic such as plastics. The Sun Metro monitoring site (CAMS 40) has the highest PM concentrations in TX. Going back to 1997, Sun Metro has had the highest values for PM & Air Toxics. AC commented that regional haze is transported into a region. What we=re seeing is not regional haze but localized dust.

International Supplemental Environmental Projects (ISEPS)

Scottie Aplin, TNRCC SEP Coordinator indicated that 2 items merit discussion: SEPS in Texas with limitations & growth in that area, and ISEPs as part of the TX enforcement process. She prefaced the discussion by stating that a bad settlement is better than a good fight. Resolving problems you not only fix the problem but also lay the framework together to resolve problems in the future. TNRCC does not focus strictly on enforcement aspect, it looks at the global perspective. The SEP program goes above and beyond this. During the settlement process the entity under enforcement can choose to invest in an environmental enhancement program such as recycling, composting, waste water treatment programs, etc. By virtue of doing SEPs, those that have violated the law can take steps to resolve the problem. We consider approving the program that goes above & beyond what the law requires in the community where the violation occurred. One factor to consider is that the project be voluntary. Some may choose to work on a SEP, and there are limitations on requiring someone do something they don=t want to do. Many facilities in TX are expressing interest in SEPS stating the positive feedback to and from the community where the investment occurs. Entities recognize the benefit of investing in the community where 50% of the penalty benefits the community. Some funds have been used for extension of wastewater treatment services.

Regarding ISEPs, there are strong shared common interests and environmental concerns such as air, water, etc. One issue evaluated is ability to do an ISEP to benefit TX but on the MX side of the border. The TX legislature under the leadership of Sen. Eliot Shapleigh entered a statue to do ISEPS and enabled the TNRCC to do ISEPS on the MX side of the border if those benefits have a positive impact in TX. Criteria have been established to allow the agency to determine if a proposed ISEP does just that. An ISEP was negotiated w/ a local refinery that benefits all 3 communities in the Paso del Norte airshed. The ISEP is a Acash for clunkers@ program designed to purchase a number of vehicles to reduce mobile source emissions.

Crafting Efficient Policies to Control Emissions From Brickkilns in Cd. Juarez

Resources for the Future researchers are implementing use of ISC-3 (Industrial Source Complex Dispersion Model) to estimate pollutant concentrations from Cd. Juarez brickkilns and propose methods of controlling emissions to improve public health. Dr. Allen Blackman from RFF provided some preliminary results on the Benefits and Costs of Alternative Pollution Control

Strategies for Traditional Brick Kilns in Cd. Juarez. In 1996, RFF conducted a survey of brickmakers in Jz.

Objective of research is to develop efficient emissions control strategies / \$ spent. Strategies were: Switch to cleaner fuels, use lower cost technologies, ban firing, and target key brickmakers for these strategies. A 5-step methodology was developed which included: development of an ISC-3 dispersion model; estimation of the health impact of concentrations; place a dollar value on impacts (costs), benefits, and willingness to pay. Regarding the air dispersion model we look at PM10 for 2 reasons: 1) its thought to have most severe health impacts, & 2) one can develop epidemiological statistics.

Update on Regional Forestry Programs

As indicated in its Strategic Plan, the JAC proposes to strengthen reforestation programs to reduce air pollution by controlling soil erosion and sequestering CO2.

City of Socorro Tree Program

Delia Ponce, City of Socorro, stated that The City of Socorro is 14 yrs old with a population of 30,000 and is the 3rd fastest growing community in TX.. The City=s first tree planting program developed from a grant from the TX Forestry Service. The City of Socorro applied for the grant & was awarded \$20K to plant 50 trees. When Socorro was awarded the grant they wanted to have a party to build community involvement in this project. This was a collaborative effort between elected officials & the community at large. The program has succeeded. In 1996, Socorro negotiated with TX A&M University to obtain a 10 acre park. One contingency on transfer of this land was the development of the property into a park w/in 1 year. After the land was received the city planned and promoted planting over 100 trees. The City of Socorro placed an ad in the local paper and asked for tree donations. The response was phenomenal with the highlight being a BYOS (Bring Your Own Shovel) party where in excess of 100 trees were donated. In 1998 the City of Socorro was approached by EPIC Components, a subsidiary of ALCOA Fujimora which is involved in a 1,000,000 tree project in 24 countries. This program started w/ 50 trees for the Rio Vista Community Center Complex. In 1999 the most current project supported from EPIC components is for improvement of the Socorro Mission District developed thru an interlocal agreement between the City of Socorro and the diocese. This project also involves TxDOT.

Texas Forest Service / West Texas Urban Forestry Council

Oscar Mestas, TX Forest Service (TFS) and Regional Urban Forester indicated the TFS is concerned about trees in cities & improving the urban environment within those cities. The Mission of the TFS is to help TX cities develop self-sustaining tree programs. His job is to have a program to keep trees going, replace them & keep the urban forest healthy. Most of the trees in this area are adapted and maybe not indigenous. TFS helps w/ research and can answer questions regarding the sequestration of carbon which depends on size, growth rate, and type of trees. Regarding carbon sequestration, a tree can sequester about 13 lbs - 175 lbs / yr of carbon. Many studies by American Forest Service have identified the benefits of an urban forest.

Austin, TX which has a 34% tree canopy cover has saved millions of dollars in pollution control activities. .

John White. WTUFC (a non-profit 501c3 corporation made up of community volunteers) indicated that areas of concern for the WTUFC are proper tree care & selection for this community. While many species are not adapted or indigenous to this community many species have adapted to the Chihuahuan Desert climate. The WTUFC developed a tree planning guide and posters are available on indigenous & adapted tree species. The document has been translated to spanish and perhaps available thru Jz parks dept. The WTUFC has a community trees program going on at Montwood HS. It also recently had a regional trees conferences where 150+ persons attended.

Cd. Juarez Parques y Jardines (Parks and Gardens) Department Tree Program

Epifanio Hernandez from Parques y Jardinez indicated that in Juarez there are 645 Community parks, 300 public parks, the Chamizal and several orchards/nurseries containing over 20,000 trees for future planting. In the Cd. Juarez Central Park and Borunda Park, a rental fee is charged to vendors and the funds are paid to maintain the park. There is also a Municipal Reforestation Committee which formed about 4 yrs ago. This committee has a wide participation from all sectors of the community. The Parks Dept. has developed an inventory of different regions in Jz where tree planting activities are being implemented. Species are developed with regard to water resource availability and drought resistance. Most important is to have an educational program in place before planting trees to learn about climate and soil. Community participation is also essential.

The El Paso Inspection and Maintenance Program

The El Paso I/M program includes enforcement actions and detection of fraudulent stickers and practices. Rose Chavez, Field Supervisor for EP I/M program provided a presentation on the enforcement program as well as statistics on vehicle passing rates. An I/M program is in force in El Paso and 3 other State of TX Counties which are in nonattainment for one or more ambient air quality standards in which mobile source are a major component of air quality degradation. The program is enforced for vehicles which are registered & primarily operated in those designated counties & between the ages of 2-24 yrs. El Paso has 247 I/M stations w/ approx 700 inspectors. DPS has 4 technicians in the field; this averages to about 62 stations / tech. Analyzers need to be checked on a quarterly basis by the technician to assure that the inspections that are given are within acceptable parameters. DPS also has 1 covert technician who takes 1 of 3 covert vehicles to assure the analyzers are measuring appropriate emissions. DPS has 4 different enforcement actions: station warning, citation, inspector license suspension, license revocation. DPS has an analyzer at its own offices to analyze vehicles that the owner thinks didn't pass the emissions test due to faulty equipment at the testing station. A covert tech may then take a DPS vehicle to that station to determine if the vehicle (which is normally set to not fail) is being inappropriately tested and determine if an enforcement action should be undertaken. A tech will check for failing reading, overcharging for the stickers, and selling bogus stickers). The vehicle is set to pass since a judge will think that setting the vehicle to fail is unfair to station owners. Each

inspector needs to be trained, pass emissions test & be certified to operate emissions analysis equipment. Each month each tech makes a contact of his/her stations for a variety of purposes or to take enforcement action against an inspector or station itself if something is noticed that is in violation with the rules governing the I/M program. Enforcement actions can result from a motorist complaint, or fraudulent certification investigation. So far the DPS is pleased w/ EP program. They also go out to different parking lots & check visually to do compliance testing. El Paso has an 80% compliance rate w/ 10% illegal stickers; the other 10% have out of state plates.

EPCCHED has developed a program to implement / regulate car lots. Problem is that car lots are popping up everywhere w/o regulation of what they sell. Some of the stickers are being placed on a vehicle w/o the vehicle being inspected. A falsified sticker is a Class B Misdemeanor . Selling fraudulent stickers is a Felony. EP program is on top of the State in compliance w/ 10% fraudulent, 10% w/o sticker. El Paso has about a 22% failure rate. Not too many waivers have been issued (22 to date). Of the 247 stations, the following statistics are for the time period 9-98-9-99: suspended-17 stations; 19 inspectors; cited 21 stations, 54 inspectors; warned 65 insp. 47 stations.. After cited twice for something illegal they are suspended. Vehicle needs to have required emissions components installed, but inspection sticker does not to be in place in used car lots.

New Initiatives:

ALF would like to have the JAC send a letter to Border 21 Cochairs to send a letter to BECC to work w/ used tires in a fashion within the purview of the BECC.

The Cochairs will send a congratulatory letter to PEMEX to try to increase the oxygenate concentration to further reduce CO emissions from mobile sources in Juarez.

Next Meeting: March. No specific date set.

Adjourn.