

# Memorandum



DATE July 27, 2007

TO Honorable Mayor and Members of the City Council

SUBJECT Texas Clean Air Cities Coalition (TCACC) Update

The attached materials will be presented at the August 1, 2007, City Council meeting. This briefing provides an update of activities by the Texas Clean Air Cities Coalition (TCACC) surrounding the permitting of Coal Power Plants.

Please contact me if you have any concerns or questions.

  
Jill A. Jordan, P.E.  
Assistant City Manager

Attachment

C: Mary K. Suhm, City Manager  
Deborah A. Watkins, City Secretary  
Thomas P. Perkins, Jr., City Attorney  
Craig D. Kinton, City Auditor  
Judge Jay E. Robinson  
Ryan S. Evans, First Assistant City Manager  
Charles W. Daniels, Assistant City Manager  
Ramon F. Miguez, P.E., Assistant City Manager  
Jill A. Jordan, P.E., Assistant City Manager  
A. C. Gonzalez, Assistant City Manager  
Dave K. Cook, Chief Financial Officer  
Chandra Marshall-Henson, Assistant to the City Manager

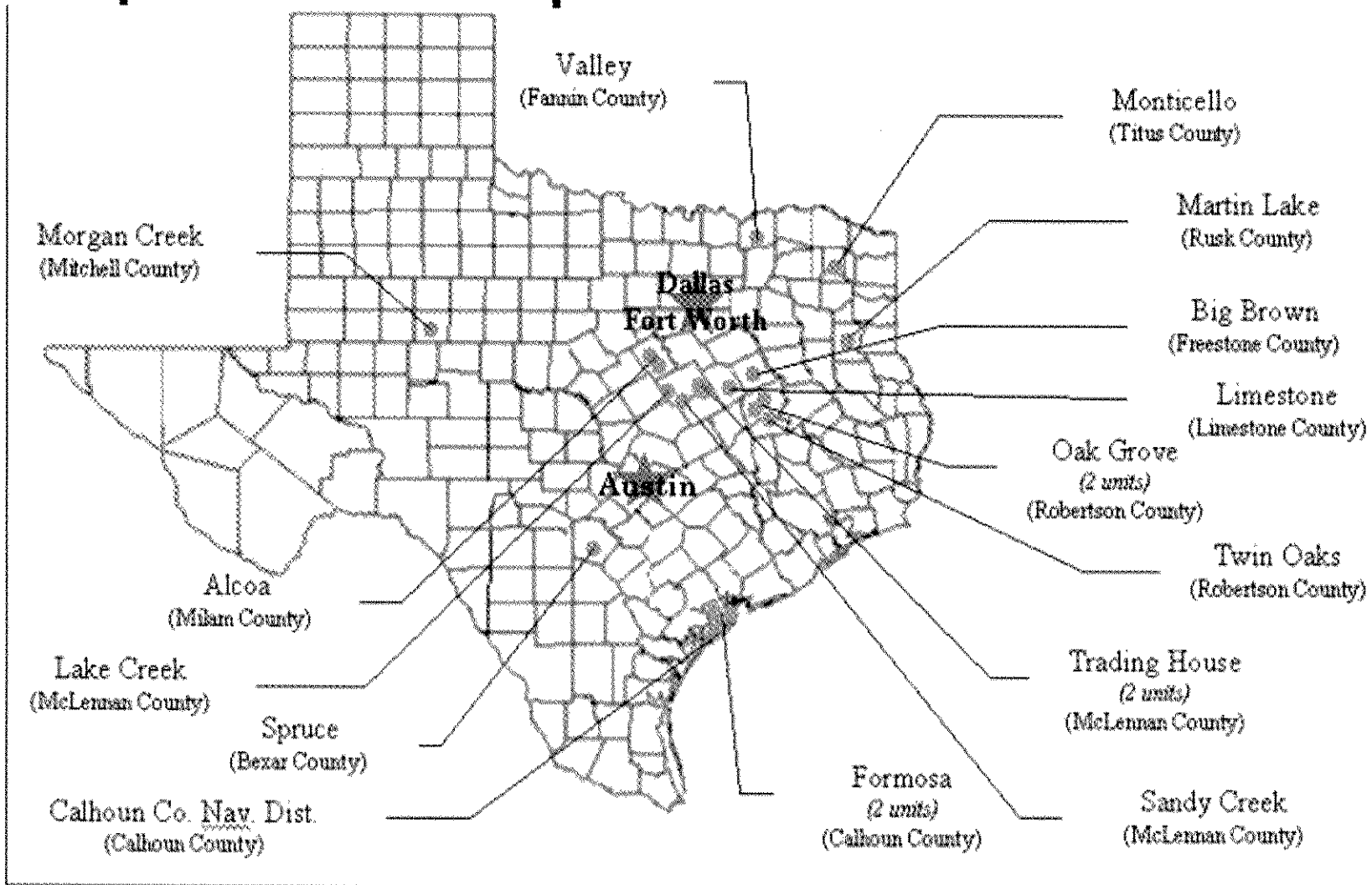
# Texas Clean Air Cities Coalition (TCACC) Update

August 1, 2007

# Background

- October 2005 - Citing the State's need for power, Governor Rick Perry issued an Executive Order which expedited the permitting process of power plants to six months. Previously this process took one year to 18 months.
- February 2006 - TXU begins permit process on the Oak Grove plant for two units.
- April 2006 - TXU filed permit applications for eight units bringing the total number of proposed power plants in Texas to 18.
- Summer 2006 - Mayors of Dallas and Houston formed a coalition of 36 Texas cities, counties and school districts (Texas Clean Air Cities Coalition) concerned about the air quality impacts associated with these plants.

# Map of 18 Proposed Power Plants



# Air Quality Pollutants of Concern

- **Ozone** – Ozone, or smog, is formed when emissions of Nitrogen Oxide (NO<sub>x</sub>) and Volatile Organic Compounds (VOC) are combined in the presence of sunlight. Ozone causes breathing complications especially in young children and the elderly and it exacerbates asthma.
- **Particulate Matter** – Particulate matter are small particles regulated in two sizes (2.5 and 10 microns). Particulate matter causes respiratory illnesses and as been designated as a carcinogen in California.

# Air Quality Pollutants

- **Mercury** – Mercury can cause neurological and developmental damage. Most East Texas Lakes have fish consumption restrictions due to elevated mercury concentrations in fish tissue. Seventy percent of the state's manmade mercury comes from its power plants.
- **Carbon Dioxide** – CO<sub>2</sub>, a greenhouse gas, contributes to global climate change and is emitted from a variety of sources including cars, construction equipment, and power plants.
- **Sulfur Dioxide** – Sulfur Dioxide emissions are linked to acid rain and can cause respiratory illness.

# Federal Requirements

- The Environmental Protection Agency (EPA) sets National Ambient Air Quality Standards for criteria pollutants such as ozone, particulate matter, and carbon monoxide.
- If a region does not meet one of these standards, it is designated as a “**non-attainment area.**”
- The state environmental agency (Texas Commission on Environmental Quality) must develop and submit a plan to the EPA demonstrating how the region will come into compliance with the federal standards (**State Implementation Plan or SIP**).
- The SIP contains a variety of control measures to reduce emissions from mobile and stationary sources operating in the region.

# Economic Consequences

- If a region does not have an approved SIP, or does not come into compliance with the National Ambient Air Quality Standards, the federal government can choose to impose financial consequences.
  - Restrictions on federal highway funding and Community Development Block Grants (CDBG).
  - Stricter permit limits.
    - Toyota chose San Antonio over Dallas for its new Tundra plant citing Dallas' poor air quality as a reason for not locating in the DFW area.
  - Federal permits could be significantly delayed.



# Texas Ozone Non-Attainment Areas

- The DFW area currently exceeds the EPA's eight hour ozone standard (non-attainment) of 85 ppb.
  - Texas has two other areas in non-attainment for ozone: Beaumont/Port Arthur and Houston/Galveston
- Austin, San Antonio, Corpus Christi, Victoria, and the Tyler/Longview/Marshall area are designated as near non-attainment areas for ozone.
  - The Tyler/Longview/Marshall and Austin region's three year ozone average is currently 85 ppb
- Waco did not have air quality monitors until this ozone season

# Achieving Attainment in DFW

- DFW's ozone three year average across all air quality monitors is currently at 96 ppb, which exceeds the 85 ppb EPA standard.
- TCEQ submitted a proposed SIP for EPA approval in June of 2007 with a compliance date of June 2010.
- The currently proposed SIP includes regulatory measures related to the following: emission reductions from power plants operating in DFW non-attainment area, requirements for reduction from cement kilns, reductions from engines operating in East Texas, and other local control measures for on-road and off-road engines.

# *Draft* DFW Plan for Attainment

- The proposed SIP was expected to lower ozone levels in the region to 87.7 ppb.
- DFW was projected to meet the EPA ozone standard of 85 ppb by 2010, due to:

- Truncating (Rounding Down)= 87.0

- Weight of Evidence (2 ppb) = 85.0

Note: Weight of evidence allows the TCEQ to take credit for those measures that cannot be quantified or regulated (i.e. energy efficiency measures)

# Things Have Changed

- Two of the air quality monitors in DFW are now predicted to be over 88 ppb in June 2010.
- Weight of evidence will not be as clear compared to the previous draft SIP proposal (monitors were below 88).
- EPA Regional Administrator issued a letter to the TCEQ Commission raising concerns over ability to approve the currently proposed SIP.
- EPA has 18 months to review and approve/reject the proposed SIP.

# EPA is Proposing to Lower the Ozone Standard

- EPA has requested public comments on lowering the ozone standard.
  - EPA is considering a new standard between 70 to 75 ppb.
  - A public hearing will be held in Houston in September.
  - A final rule is expected in March 2008.

# Texas Clean Air Cities Coalition (TCACC)

- Summer 2006—Concerned about the impacts of the proposed plants on their communities, the Mayors of Dallas and Houston formed a coalition of 36 other Texas cities, counties and school districts to participate in the permitting of the proposed units.
- September 13, 2006—The Dallas City Council voted to officially become a member of the TCACC in order to show the City of Dallas' commitment to air quality and support the Mayor with the formation of the TCACC.
  - This is the first time that Texas cities organized around an issue that will have a major impact on air quality, health and economic development in the State of Texas.

# TCACC Members

- Arlington
- Athens
- Axtell ISD
- Bells
- Bells ISD
- Bogata
- Central Texas Clean Air Coalition (CAPCOG)
- CLEAN AIR Force of Central Texas
- Coppell
- Dallas
- DeSoto
- El Paso
- Fort Worth
- Frisco
- Hallsburg
- Hallsburg ISD
- Haltom City
- Hillsboro
- Houston
- Irving
- Lancaster
- McKinney
- McLennan County
- Mount Vernon
- North Texas Clean Air Steering Committee (NCTCOG)
- Plano
- Reno
- Richardson
- Streetman
- Tom Bean
- Travis County
- Trenton
- Uncertain
- Waco
- Whitewright
- Wiley

# Power Plant Permitting Process

- Applications are filed with the Texas Commission on Environmental Quality (TCEQ).
- TCEQ reviews the application and the TCEQ Executive Director determines whether to issue a draft permit.
- Once a draft permit is issued, if there are parties opposed to the permit, proceedings begin to determine “affected parties” to participate in the case.
- Permit hearings are held in front of administrative law judges from the State Office of Administrative Hearings (SOAH).
- The SOAH judges make a recommendation to the TCEQ Commissioners as to whether a final permit should be granted.
- Decision to issue final permit is made by the three member TCEQ Commission.



# Permit Hearings

- December 2006—TCACC proves itself as an “affected party” and is granted party status. TCACC officially intervenes in the permit hearings of seven TXU units.
  - TCACC hires experts to conduct a variety of environmental and economic impact studies of the proposed TXU power plants.
  - The studies included a cumulative air quality ozone impact study of the proposed plants. This is the first time comprehensive air modeling has been conducted looking at cumulative impacts on the State.

# Permit Hearings

- February 20, 2007—State District Judge rules Governor Perry's fast track Executive Order is unconstitutional, and directs the administrative law judges hearing the case to reconsider the hearing schedule.
- February 21, 2007—Permit hearings are set to begin in Austin on the seven TXU units.
  - The administrative law judges delay the hearings until June 27, 2007.
  - SOAH judges make the decision to allow carbon dioxide and climate change to be considered during proceedings
- February 26, 2007—TXU announces it has entered into an agreement to be purchased by investors Kohlberg Kravis Roberts & Co (KKR) and Texas Pacific Group (TPG)

# TXU Purchase

- Buyers announce new name for company: Texas Energy Future Holdings (TEF).
- TEF commitments if the purchase is approved :
  - Cease permitting process on eight of the 11 proposed coal-fired units. The three remaining are as follows: two units at Oak Grove and one at Sandow.
  - 20% reduction in emissions for existing plants.
  - Reduce carbon emissions to 1990 levels by 2020.
  - Endorse the platform of the U.S. Climate Action Partnership (USCAP) coalition including federal legislation for a mandatory cap-and-trade system for greenhouse gas emissions.
  - Pursue more wind power and double the company's spending on energy efficiency.
  - Establish a Sustainable Energy Advisory Committee to help the company implement a business model that includes leadership on climate change.

# TCACC and Texas Energy Future (TEF)

- Shortly after the announcement of the purchase, members of the TCACC Steering Committee met with the new buyers and their representatives both in person and by phone.
- Several requests were made by the TCACC regarding environmental considerations of the potential purchase.

# Requests By TCACC To TEF

- Consider building Morgan Creek near Abilene instead of Oak Grove.
- Install selective catalytic reduction (SCR) on all existing TXU plants. The TCACC also requested TEF consider installing additional mercury controls being testing on one of the existing TXU plants.
- Retire existing permits for the three TXU natural gas plants.
- Consider building Oak Grove as an integrated gasification combined cycle (IGCC) plant or consider burning Powder River Basin coal instead of Texas lignite (or a blend of the two coals). Powder River Basin coal significantly reduces emissions from a pulverized coal plant.
- Officially withdraw the eight permits still pending at TCEQ.

# Sadow (One Unit)

- Permit was originally issued for construction of pulverized coal power plant in 2002.
- Permit expired before construction completed. Permit renewal was held up by legal challenges from environmental groups and Federal Department of Justice.
- Settlement offer approved by U.S. District Judge in March 2007.
  - Old permit was reinstated with additional emission controls for mercury and nitrogen oxides.

# Oak Grove (Two Units)

- In February 2006, a draft permit was issued to TXU to construct two pulverized coal fired units at Oak Grove.
- Oak Grove will emit 16.5 million tons of carbon dioxide per year. This will place Oak Grove number 20 in the U.S. for existing coal plants in terms of tons of carbon dioxide emissions per year.
- According to TCACC modeling studies:
  - The DFW area would experience up to an additional 0.39 ppb of ozone from Oak Grove on certain days.
  - Oak Grove would add 1.5 ppb of ozone to Austin,

Note: TCACC was not a party in Oak Grove case because TCACC did not exist when the Oak Grove draft permit was issued. (The only party to the case was a community group in Robertson County.)

# Oak Grove

- In August 2006, the SOAH judges recommended the TCEQ Commission deny the Oak Grove permit as they did not believe TXU proved the proposed emission control technology would achieve the proposed permit limits.
- In May 2007, many elected officials, including the TCACC, requested TCEQ remand the permit back to SOAH for further proceedings citing several concerns including:
  - Governor's Executive Order deemed unconstitutional
  - Results of modeling studies by TCACC
  - Elevation in climate change concerns



# Oak Grove

- In June 2007, despite SOAH judges' recommendation for denial and requests for remand, the TCEQ Commissioners voted 2-1 to issue the Oak Grove permit.
  - TCACC immediately filed a Motion for Rehearing for the Oak Grove permit with the TCEQ Commission. This is the first step in the appeals process, as mandated by the State.
- In July 2007, in order to protect appellate rights, the TCACC filed suit in State District Court against the TCEQ if the motion for rehearing is denied.
  - If the TCEQ grants the Motion for Rehearing, the TCACC will withdraw its suit.

# TCACC Successes

- Formation of state's first united coalition of local governmental entities and elected officials concerned with state's air quality issues.
- National attention brought to environmental and health effects of pulverized coal fired power plants.
- First large scale cumulative ozone air modeling effort in Texas.
- Climate change and carbon dioxide allowed to be considered in permitting process.

# TCACC's Next Steps

- The TCACC will participate in the State District Court proceedings.
  - First step will be to secure standing in the case.
- The TCACC will intervene in the next two pulverized coal fired plant permit cases expected this fall:
  - Twin Oaks (Robertson County)
  - NRG's Limestone 3 (Limestone County)

Note: Neither of these are TXU plants, and both are of concern to the air quality of DFW, Austin and Waco.
- The TCACC will be studying renewable power and other collaborative air quality initiatives.

# Appendix

## Emissions of Recently Permitted and Proposed Coal Burning Power Plants (Source: Emissions Data from TCEQ Permits and Applications and EPA Report on Environmental Footprints)

| Power Plant   | Status   | Megawatts | CO2 Tons/Yr | SO2 (tons/yr) | NOx (Tons/Yr) | Particulate Matter (Tons/Year) | Mercury (lb/yr) |
|---|--|-----------|-------------|---------------|---------------|--------------------------------|-----------------|
| TXU's Sandow 5 at Alcoa (Rockdale, Milam County)              | Permit Granted   | 581       | 5.4         | 5,186         | 2,593         | 1,037                          | 192             |
| TXU's Oak Grove 1 and 2 (2 Units) (Bremond, Robertson County) | 8/2006: SOAH Judges recommended denial of permit; 7/2007: TCEQ Commission issued permit by vote of 2-1 | 1,600     | 16.6 mil    | 15,086        | 6,286         | 3,144                          | 1,440           |
| Twin Oaks Power 3 (Bremond, Robertson County)                 | Pending: Hearing Requested   | 680       | 6.1 mil     | 5,818         | 2,037         | 1,018                          | 860             |
| NRG's Limestone 3 (Jewett, Limestone County)                  | Pending: Application Filed   | 745       | 7.4 mil     | 2,103         | 1,752         | 1,402                          | 140             |