

OIL AND GAS DOCKET NO. 09-0251512

THE APPLICATION OF WEC INC. FOR A COMMERCIAL PERMIT TO DISPOSE OF OIL AND GAS WASTE BY INJECTION INTO A POROUS FORMATION NOT PRODUCTIVE OF OIL OR GAS, GURU SWD LEASE WELL NO. 1, IN THE NEWARK, EAST (BARNETT SHALE) FIELD, BOSQUE COUNTY, TEXAS

APPEARANCES:

REPRESENTING:

Applicant:

Stephen Fenoglio
Kerry Pollard
Richard Wickline II
Joe Gonzales
Harold Ed Vondran, Jr.

WEC Inc.

Protestants (party status):

Glenn Johnson, Attorney
Brenda Clayton, Attorney
Keith Bradley, Attorney
Wayman Gore
Dena Day
Cynda K. North

Dena Day, Dena Day as Trustee,
and/or Cynda K. North

David Christian, Attorney
Honorable Judge Cole Word

Bosque County
Bosque County

Bethan Frailey
Lionel & Dorothy Milberger
Ona Todd
Rose Luyster
Dewey Warner

Self
Self
Self
Self
Self

Individuals Providing Statements Only:

Jim Starnater

Nathan Taylor
Kelly & Susan Sparks
Gerald R. Burns
Donald K. North
Martha J. West
Myrtle Bradshaw
Robert Pekearo
David & Rita Clark

Self & Mustang Valley Water
Supply Corporation
Self
Self
Self
Self
Self
Self
Self
Self

Donald Morris	Self
Scott Beek	Self

Other Individuals in Attendance:

Bettie J. Land	Self
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PROCEDURAL HISTORY

Date of Application:	April 17, 2007
Date of Pre-Hearing Conference:	June 18, 2007
Date of Notice:	July 24, 2007
Dates of Hearing:	August 22-24, 2007 September 19, 2007
Heard by:	Thomas H. Richter, P.E. Mark J. Helmueller
Date of Last Transcript:	September 24, 2007
Hearing Closed:	October 16, 2007
PFD Prepared by:	Donna K. Chandler Mark J. Helmueller
Date PFD Issued:	February 21, 2008
Amended PFD Issued:	February 25, 2008

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

This is the application of WEC Inc. for a permit to operate commercial saltwater disposal facility in Bosque County. The proposed well is the Guru SWD No. 1, which was drilled in April 2007.

Numerous letters of protest were received from residents of Bosque County and numerous individuals attended the hearing. Due to the unusually large number of protest letters and attendees at the hearing who traveled from Bosque County, the examiners provided individuals an opportunity to make statements as part of the argument presented in opposition to the proposed well and facility.

Notice was given to the affected persons, the County Clerk of Bosque County, all surface owners of adjoining tracts and all operators within one-half mile on January 25,

2007. Notice of this application was published in the *Bosque County News*, a newspaper of general circulation in Bosque County, on January 31, 2007.

MATTERS OFFICIALLY NOTICED

The examiners took official notice of Commission RRC Online System computer records from the Drilling Permits - Form W-1 Database for drilling permits issued in 2007 for Bosque County. Additionally, official notice was taken of Commission RRC Online System computer records from the Production Data Query Database for all historical production from wells completed in the Newark, East (Barnett Shale) Field in Bosque County through October 2007.

DISCUSSION OF THE EVIDENCE

APPLICANT'S EVIDENCE

A Commission Form W-14 (Application to Dispose of Oil and Gas Waste by Injection) was filed by applicant for the Guru SWD No. 1 in January 2007 and an amended application was filed in March 2007. Drilling on the well was completed in April 2007. The well is drilled to a total depth of 8,345 feet and is completed as follows:

- Surface casing (9-5/8") set at 1,130 feet with cement from the casing shoe to the ground surface.
- Longstring casing (7") set at 6,816 feet cemented in 2-stages using a DV Tool set at 3,415 feet. The longstring is cemented from the casing shoe up to 3,900 feet based on a cement bond log, and from the DV Tool at 3,415 feet to a calculated depth of $\pm 1,350$ feet.
- Tubing (4-1/2") set on a packer at 6,759 feet.

The top of the Ellenburger Formation, is 6,640 feet. The proposed disposal interval is from 6,816 feet to $\pm 11,000$ feet subsurface depth. WEC requests that the permitted disposal interval extend to 11,000 feet in the event there is a reason to deepen the well further down into the Ellenburger Formation. The top of the Barnett Shale is $\pm 6,500$ feet and the shale is ± 150 feet thick in this area. The proposed disposal interval is about 160 feet below the top of the Ellenburger and WEC feels that this is sufficient separation to prevent communication between the Ellenburger and Barnett Shale.

WEC filed a cement bond log with its application. The cement bond log run on this well was run without pressure on the casing because this is an open-hole completion from the casing shoe to 8,300 feet. WEC agreed to a permit condition requiring a tracer survey be filed with the Commission to demonstrate that there is no channeling in the cement behind the longstring, as suggested by protestants. The survey would be run about 30 days after injection commences. No concerns were noted by the Commission Staff during the administrative review process.

Pursuant to the Texas Commission on Environmental Quality, the interval from the land surface to 20 feet below the base of the Cretaceous-age beds must be protected. In this area, the base of Cretaceous-age beds is estimated to occur at a depth of 1,075 feet (TCEQ Letter dated February 13, 2007). The proposed maximum injection volume is 25,000 barrels per day and a maximum injection pressure is 2,000 psig.

A review was made of all wells within ¼ mile of the proposed disposal well. One well is present in the area and only a "scout ticket" was found for that well. The well is the Telegram, J.W. Burns Well No. 1, drilled in 1922 to a total depth of 4,575 feet. The well was apparently a dry hole and there is no conclusive evidence of plugging. However, the well is over 2,000 feet shallower than the top of the proposed disposal interval. A review was made of all domestic water wells within 1 mile of the proposed well.¹ A total of 22 wells were found and the reported deepest well was 330 feet.

Public Interest - Industry Need

WEC believes that the safe and proper disposal of saltwater serves the interest of the general public. The completion of the subject well and the design of the surface facility protects both surface and subsurface usable quality water.

WEC urges that the economic disposal of produced saltwater serves the public interest as it allows for the recovery of additional reserves from wells in close proximity to the new disposal facility, reserves that otherwise would be uneconomical to produce. WEC asserts there is an industry need for a commercial disposal facility in this area of Bosque County. WEC believes that the Guru SWD facility will primarily service the industry for wells completed within a 20 mile radius (as of the hearing, there were 230 completed wells within the review area). Production from wells within 20 miles was less than 100 MMCF in 2003. In 2006, wells within the 20 mile radius produced over 40 BCF of gas.

Currently, there are 15 injection wells/permits issued for disposal wells within 20 miles of the subject site. All of the wells are permitted for Ellenburger Formation disposal. Only three of the wells are classified as "public" access wells, the remainder being private injection wells. The industry need for economic water disposal is necessary to reduce operating expenses. This is met by reducing water hauling distance and wait times at commercial facilities. The proposed facility location would be ahead of the drilling activity so the infrastructure would be in-place.

A review of drilling permits and completions demonstrates a high density of wells to the north-northeast of the proposed facility in Johnson County. Barnett Shale wells must be fracture stimulated with 30,000 to over 100,000 barrels of water, which must be

¹ State of Texas Well Reports obtained from the Texas Water Well Drillers Board, Texas Water Commission, Texas Department of Water Resources, Texas Water Development Board, Texas Water Well Drillers Advisory Council, Texas Natural Resources Conservation Commission, United States Department of Agriculture Farmers Home Administration Water Facilities Program, United States Department of the Interior Geological Survey Water Resources Branch.

disposed of subsequent to its use in completing the well. Currently there are approximately 6,000 wells in the Barnett Shale trend. In 2002 there were less than 1000 wells. Production increased from 10 BCF/month to 60 BCF/month in just 5 years. Cumulative gas production is 2.8 TCF of gas and 9.2 million barrels of hydrocarbon liquid.

WEC determined the number of drilling permits, producing wells and monthly production for wells completed in the Newark, East (Barnett Shale) Field and, if any, other fields, on a county-by-county basis from Commission Drilling Permit records. WEC contends the development trend shows a progression from Wise and Denton Counties southward into Parker and Johnson Counties. Further, the leading edge of the development has now extended into Hood, Somervell, Hill, Erath and now Bosque Counties.

WEC observed that the number of drilling permits in the counties associated with the Barnett Shale trend continues to increase. For example, in Johnson County, approximately 200 drilling permits were issued between January 2003 and January 2005. Between January 2005 and July 2007, over 2,000 drilling permits were issued in Johnson County. In Bosque County, fewer than 5 drilling permits were issued between January 2003 and January 2005. However, between January 2005 and July 2007, 40 drilling permits have been issued in Bosque County. WEC asserted that the increase in drilling results in increased demand for associated services, such as salt water disposal.

WEC submitted contracts with water haulers as further evidence to support its public interest argument. Legacy Transport, has contracted with WEC for estimated disposal of up to 16,000 BWPD at the proposed facility. Legacy has a saltwater hauling agreement with Range Resources, who will reportedly develop over 6,000 acres in Bosque and Johnson Counties. A second salt water hauler, Chalk Mountain Transport, has a contract with WEC to dispose of a minimum of 16,000 BWPD at the proposed facility. Finally, three other water haulers stated that they would use the proposed facility due to wait times of 2 hours or more at the existing facilities.

WEC believes that the specific location of the facility will have minimal adverse effects on the general public, yet still be beneficial to the industry. The entrance to the facility is on County Road 1191, about ½ mile off State Hwy. 174. Truck traffic already exists on State Hwy 174, with Trinity Materials, a gravel and aggregate company, hauling a minimum of 125 trucks a day.

The Facility

WEC presented a Spill Prevention, Control and Countermeasure Plan ("SPCC") to address any issues concerning daily operation and surface facility spill response. The plan is in accordance the Environmental Protection Agency's 40 CFR Title, Part 112 and is required within 6 months of operation commencement. The plan was prepared and presented in an effort to address concerns of the protestants. The plan was used as a guideline to construct the containment facilities. The plan was sent to the EPA Region VI

for review and comments which were incorporated into the plan.

The primary containment facility has already been constructed by WEC. It is a large above-ground concrete vat (approx. 70'x100' with a capacity of ±4300 bbls) into which trucks will unload. Water unloaded from trucks will flow through various chambers to allow any solid particles to settle. Beneath the vat will be a low density polyethylene liner (not required by EPA or the Commission), topped with sand/crushed road base material and then the steel reinforced concrete vat. The vat will be lined internally with a protective Kevlar coating. Confinement factors are based on the required NOAA-25 year rain event plus a 1.15 safety factor. Surrounding the perimeter of the vat is a sump apron with 6 "dry well" monitors for the inspection of the material below the vat. In addition, the Commission would require that the vat be emptied at least once a year for inspection. The vat will also be covered to keep birds and other animals out. An area approximately 240' x 120' around the unloading area will be surrounded by an earthen berm approximately 26" high, which will be the secondary containment feature of the facility. The entire facility will be surrounded by another earthen berm (5-6 feet in height) for containment purposes in case of a catastrophic event. For security, the entire facility will be enclosed by a fence and will be manned 24 hours a day.

WEC maintains a 5 mph speed limit within its facility. WEC has offered to pave the half mile of County Road 1191 from State Hwy. 174 which will provide the primary access route to the facility. To minimize noise, the injection pump will be electric instead of diesel, and trucks will not be allowed to use engine brakes.

WEC submits that it has the expertise to build and manage the proposed facility. WEC has constructed six commercial disposal well facilities including drilling, completing and building the surface facility. WEC, Inc. has a current approved Form P-5 (Organization Report) and posted a \$25,000.00 financial assurance bond. In addition, WEC maintains general liability insurance.

Richard Wickline, Sr. is an owner in WEC, Inc., with his son Richard Wickline II. Richard Wickline, Sr. was once associated with Majestic Consulting. Wickline admitted that Majestic's Hamilton SWD well in Hamilton County was in violation of Rule 13, having set about 70 feet more surface casing than allowed by Rule 13. Majestic had not obtained a Rule 13 exception from the Commission prior to the setting of the casing. Subsequently an exception was obtained and a \$500 settlement was paid for the violation. There have been no other enforcement actions against Majestic Consulting or WEC Inc.

PROTESTANTS' EVIDENCE

Protestants Dena Day, both individually and as trustee for the Burns Family Trust

and Cynda K. North,(the “Day-North” Protestants), Bosque County, Lionel and Dorothy Milberger, Dewey Warner, Ona Todd, Rose Luyster and Bethan Frailey believe that the application for the proposed commercial disposal well and facility should be denied. Protestants’ evidence fell into several general categories: 1) WEC’s failure to establish a current need for an additional commercial disposal facility in Bosque County; 2) potential of pollution of surface or subsurface waters; 3) potential negative consequences to the development of the Barnett Shale in the vicinity of the proposed well due to the volumes of fluid injected into the underlying Ellenburger Formation; 4) noise, lighting, and odor nuisances which would result from the operation of the facility; and 5) increased heavy truck traffic on Country Road 1191, causing county road deterioration and public safety concerns because the of the trucks. Additionally, several individuals residing in the general vicinity provided statements in opposition to the proposed facility citing similar concerns.

DAY-NORTH'S CASE

The Day-North protestants are adjacent property owners of livestock ranches. There is a small spring fed creek that runs from the disposal facility tract and continues across their property. This creek runs into Plowman Creek and ultimately reaches the Brazos River. There are also stock ponds on the property, which are downhill from the proposed disposal facility. These protestants also have domestic water wells on their property. Aquifers underlying the property are the Paluxy, First Trinity and Second Trinity.

These protestants believe that the site location for the proposed facility is not suitable for a commercial industrial facility. The facility is located on County Road 1191, which is a narrow county road only about 20 feet in width. There are numerous school bus stops on the county road and increased traffic would create a hazard for school children. The facility is about ½ mile off State Hwy. 174. The turn off from State Hwy 174 onto County Road 1191 is not tractor-trailer friendly, as it is difficult in a regular vehicle.

More importantly, these protestants believe there is no need for the well at this time as the Barnett Shale development has not occurred in Bosque County. Protestants believe that WEC acted imprudently by drilling the disposal well and constructing the primary containment facility before a disposal permit was granted for the well.

Barnett Shale Development in Bosque County

The Day-North protestants do not believe that the proposed disposal well will encourage Barnett Shale development in Bosque County. The well is not needed in this area of Bosque County. This belief is substantiated by a review of past and current activity.

A general investigation was performed by mapping the locations of permitted wells and the completions over time, by county for the area within 20 miles of the proposed well. The general investigation confirms that the Barnett Shale development has trended from

north to south. However, recent permits issued in Johnson County, have moved back to the north, away from the Johnson-Bosque County Line.

Protestants observed that Barnett Shale activity in Bosque County has been minimal with few changes in the last 2 - 3 years. In Bosque County, there were 12 permits in 2005; 18 in 2006, and 6 as of this hearing time in 2007. There are less than 10 completions of Barnett Shale wells in Bosque County and only one with reported production. This well tested at only 954 MCFD. The maximum estimated recoverable reserves for this well are 120 MMCF of gas, which is not economical. Protestants therefore argued that there is no evidence to support massive development of the Barnett Shale in Bosque County. Protestants urged that success breeds drilling permits and successful Barnett Shale wells have not been completed in any part of Bosque County.

A reserve study was performed for all the wells within a 10 mile radius of the proposed well. The ultimate reserves for the wells range from 17 MMCF to 1.48 BCF. The average EUR for the wells within the review area is under 400 MMCF. A review was made of the production from Barnett Shale wells in the surrounding five county area. For the single producing well in Bosque County, the EUR is 120 MMCF. For wells in the other four adjacent/nearby counties, average EUR's per well are as follows: Hill = 373 MMCF; Hood = 317 MMCF; Johnson = 1.19 BCF; and Somervell = 386 MMCF.

Existing Disposal Capacity in the Area

The Day-North Protestants asserted the current capacity of the saltwater disposal wells within 20 miles of the subject facility is more than adequate to service industry. There are 15 facilities with a "permitted" capacity of 300,000 BWPD. Three are private or non-commercial facilities. Two are permitted as commercial but are only used for disposal of water generated by Chesapeake.

Applicant identified 810 completed and permitted wells within the 20 mile area of review. A review was made of the permitted capacity of each disposal well and the reported Commission H-10 volumes (an annual form). It was determined that the 300,000 BWPD capacity for existing wells is sufficient to service 1,082 wells, based on estimated average water production of 217 BPD for Barnett Shale wells.²

Interviews were conducted with some of the water haulers and facility operators, and actual site inspections (10 sites visited and 7 phone conversations) were made at some of the water disposal facilities for the purpose of determining wait times. All active facilities had additional capacity and no appreciable wait times. Site visits and phone conversations with facility operators were necessary as a result of WEC's allegations that truckers complained of long wait times.

²The capacity volume of 300,000 barrels assumes that each disposal well is actually capable of disposing of the permitted volume.

Increased Traffic and Public Interest

The Day-North Protestants contended that there is not an industry need for a commercial well at this site or in this general geographical area. These protestants believe that WEC failed to meet its burden of proof to support the proposed permit because it did not investigate how potential increased truck traffic will affect the public interest. Protestants contend this public interest issue must be addressed pursuant to the Texas Water Code Sect 27.051(b)(1).

Adequacy of Cement Bond

The Day-North Protestants also content that the subject well has not been properly completed to assure zonal confinement of injected fluids. Daily reports indicate that surface casing was set on February 24, 2007. During administrative review of the application, Commission staff advised WEC that the proposed 350 sacks of cementing to be used for surface casing was inadequate and that 600 sacks would be required to adequately cement the surface casing to surface. Additionally, the daily reports indicated a saltwater flow of sufficient volume that heavier mud was used to contain the flow from the Ellenburger Formation at about 8,345 feet. The Day-North Protestants opined that a good disposal zone should react in the opposite fashion, with possible lost circulation.

The Day-North Protestants do not believe that the log used to determine the cement height and bond quality is appropriate for evaluating channeling. WEC ran an acoustic log, which uses amplitude to indicate bonding. Lower amplitudes indicate good bonding from formation to pipe; higher amplitudes indicate poor bonding. However, the acoustic log does not provide any information with regard to channeling behind pipe, which may be present even though good bond is indicated by the acoustic log. The Day-North Protestants believe that WEC should have run a radial bond log to evaluate potential channeling.

Protestants believe there should be excellent bonding through the entire cased Ellenburger Formation and into the Barnett Shale. Interpretation of the acoustic log from the casing shoe at about 6,800 feet to the top of the Ellenburger does not establish good bonding, with only a few feet (less than 20 feet) indicated to be 60% bonded, which is the accepted industry standard for good bonding. Good bonding does not occur until 6,500 feet, which is about the depth of the top of the Barnett Shale. The top of the Ellenburger is about 6,640 feet. The top of the cement behind the longstring is found at about 3,900 feet. However, there are very few feet of good bonding (60% or more) between 5,850 feet and 4,050 feet. Typically, the best cementing is found at the base of the casing. Thus, there is no assurance that the injected fluids will be confined only the Ellenburger Formation. The cement bond log was not run above the DV tool set at 3,415 feet.

Additionally, Commission approved Ellenburger disposal permits have required the top of the injection interval to be at least 250 feet below the top of the Ellenburger

Formation. In the subject well, the longstring is set at 6,817' and the remainder of the injection zone is open-hole. The top of the Ellenburger is found at 6,640 feet and therefore, the top of the injection zone should be no higher than 6,890'. Protestants urge that if the subject well is permitted, WEC should be required to perform remedial work such that the top 200 feet of Ellenburger is behind cemented pipe. This remedial work would prevent mitigation of injected fluids into the overlying Barnett Shale.

WEC Compliance History

The Day-North Protestants also submitted evidence regarding WEC's compliance history with the Commission. In 2006, a disposal permit was administratively issued for the Injector SWD No. 1 well. After a complaint was filed regarding failure to give proper notice, the application was withdrawn. Also in 2006, a disposal permit was issued for the Angus SWD No. 1. Again, a complaint was filed regarding failure to give proper notice and the application was set for hearing. The permit was approved after Majestic/WEC obtained waivers and no one appeared at the hearing in protest. On the Hamilton SWD No. 1, Majestic/WEC violated Rule 13(b)(2) and paid a fine. Finally, protestants believe that WEC should not have drilled the Guru No. 1 until a disposal permit was granted and further observed that the well is currently in violation of Rule 16 for failure to timely file completion papers. Based on these issues, protestants do not believe that WEC is a prudent operator capable of following Commission rules.

BOSQUE COUNTY'S CASE

The Bosque County Commissioner's Court asserts that the proposed facility is not in the public interest due to the potential impact on county roads. The county roads, paved or unpaved, were not designed to handle industrial type truck traffic. The County Judge and the entire Commissioners Court of Bosque County attended the entire hearing. The County posted the hearing as a public meeting under the local government code, and remained in session during the hearing.

The speed limit on County Road 1191 that accesses the disposal location is 15 mph and the road is 20-25 feet wide. County Road 1191 is an unpaved road in an area that has developed into a primarily residential area now rather than a rural area. The county contends that County Road 1191 is too narrow for continual 18-wheeler truck traffic, especially when considering the impact on residential vehicular traffic and pedestrians, including children who live in the area.

Further, State Highway 174 is a major artery from Dallas and Ft. Worth areas to Lake Whitney (2.3 million visitors a year according the Corps of Engineers). The speed limit on State Highway 174 is 70 miles per hour. In addition to Trinity Materials, there is another sand and gravel company on Hwy 174. The addition of even more heavy industrial truck traffic will increase not only maintenance expenses for State Highway 174, but will increase accidents and injuries from the mix with automobiles.

The County is not opposed to a disposal facility, but wants to make sure it is in the right area. The county does not believe this facility is in the best interest because it is in the middle of a residential subdivision. The county is specifically concerned that the entrance to the facility is in close proximity to an existing school bus stop.

To address these concerns, the Bosque County Commissioners passed two County Ordinances, Ordinances No. 7 and 8 on March 12, 2007. Ordinance No. 7 makes it unlawful to locate an industrial facility motor vehicle entrance with access to a county road within 500 feet of a school-bus stop if the entrance will be used by more than 25 vehicles during any 24 hour period. Ordinance No. 8 makes it unlawful to locate an industrial facility motor vehicle entrance on a county road if the entrance will be used by more than 50 vehicles during any 24 hour period. Industrial facilities are defined in the ordinance as including waste disposal facilities for petroleum or petroleum bi-product waste.

FRAILEY TESTIMONY

Protestant Bethan Frailey is an adjacent property owner and is concerned that any spill from the facility would run onto her property. She and her husband and daughter live on 100 acres, with their home 3/4 mile from the proposed disposal well. Mrs. Frailey is concerned about the possibility of fumes, the dust, noise and lights from the facility. She is also concerned about the possible adverse effects of the disposal to fresh water resources. She believes that her family's quality of life will be diminished and that her property value will decrease as a result of the disposal well operation.

STATEMENTS IN OPPOSITION

Numerous individuals participated in the hearing either to provide statements, or to ask questions of applicant's witnesses. All are concerned over safety issues resulting from increased truck traffic and the impact that the trucks will have on the road conditions. They believe their quality of life and property values will be diminished as a result of the operation of the proposed well/facility.

Mr. Burns is concerned about an old well, the J.W. Burns Well No. 1, that was drilled on his property back in the 1920's that is only 1100 feet from the proposed facility. Several other individuals expressed concern about air pollution and contamination of both surface and subsurface waters.

EXAMINERS' OPINION

The examiners recommend the application be approved pursuant to §27.051 of the Texas Water Code and Commission Statewide Rule 9. WEC established that:

1. The proposed injection is in the public interest;
2. The proposed injection well will not endanger or injure any oil, gas, or mineral formations, subject to additional permit conditions recommended by the examiners.
3. The water resources (surface and subsurface) are adequately protected from pollution; and
4. Applicant has made a satisfactory showing of financial responsibility as required under Commission statutes and Commission regulatory requirements.

Public Interest - Industry Need

It is not disputed that the safest method for the disposal of water used in the development of Barnett Shale wells is through underground injection. However, the parties hotly contested the question of whether the development trend of the Barnett Shale is increasing in Bosque County. The examiners do not believe that the competing reviews of Commission permits, depositions with water haulers, and investigation of wait times at existing commercial disposal facilities provide an indisputable answer to this question.

Only 10 permits were issued by the Commission in all of 2007 for Barnett Shale wells in Bosque County. Production from Barnett Shale wells in Bosque County has also been limited, with total production reported from January 2006 through October 2007 of only 77,602 MCF. However, evaluation of current development in a single county is not definitive when addressing the Barnett Shale trend. Through the time of the hearing over 230 wells were completed within a 20 mile radius of the proposed facility. This is significant evidence to support the demand for an additional disposal facility in the area. Further, the examiners believe the existence of contracts between salt water haulers and WEC covering the complete permitted capacity for the facility is definitive evidence of a current industry need for an additional facility. Accordingly, the examiners conclude that the proposed facility is in the public interest in order to meet a current industry need for commercial disposal facilities to support the continued development of natural gas resources in the Barnett Shale trend.

Public Interest - Increased Traffic

Bosque County's opposition to the proposed facility was based in its entirety on the

potential impact of increased heavy truck traffic on county maintained roads, and specifically the impact on State Highway 174 and County Road 1191. Concerns regarding traffic within the immediate vicinity of the proposed facility were echoed by the other protestants and individuals providing statements. The County passed two ordinances to address the impact of the facility on county infrastructure and traffic safety.

The Commission action of granting a permit, whether it be for an oil or gas well, commercial disposal well, or other Commission regulated activity, does not prevent local government from taking any action over which it can properly exercise its jurisdiction. For example, if the Commission accepts the examiners' recommendation that WEC's permit be approved, the approval of a permit would not invalidate the ordinances passed by the county. In other words, the fact that a permit is granted by the Commission, does not relieve an operator from complying with any applicable local ordinances. Regardless of any Commission action granting a permit, if WEC seeks to operate its facility in Bosque County at the proposed location, it will have to address any applicable ordinances.

The examiners do not believe that an operator's compliance with applicable county or municipal ordinances needs to be specifically addressed in the form of a permit condition. Compliance with appropriate county or municipal ordinances is an issue within the jurisdiction of the county or municipality. Penalties and other remedies associated with any noncompliance with local ordinances are left to the discretion of local authorities.

The general concerns regarding traffic safety on State Highway 174 and County Road 1191 are obviously important to the local residents. However, the local concerns regarding potential increased traffic in close proximity to the facility are not sufficient to tip the balance against the demonstrated public interest on a statewide basis in providing needed underground disposal of associated fluids necessary for development of the oil and natural gas resources. Further, the concerns with respect to roadway design, traffic studies, traffic safety, and other traffic related infrastructure issues are subject to the jurisdiction of the appropriate federal, state, and local authorities. As previously discussed, Bosque County has already undertaken action in this regard with respect to County Road 1191.

Accordingly, when considering the evidence and statements made in opposition to the proposed disposal facility, the examiners find that applicant has met its burden of proof in establishing that the proposed injection is in the public interest as required by §27.051 of the Texas Water Code.

Protection of Water Resources

The proposed well is completed in such a manner as to prevent the migration of injected fluids to zones other than the intended zone. The usable quality water above and below the ground surface will not be placed at risk of pollution or contamination. The surface casing is set and cemented from 1,130 feet to surface, as confirmed by a cementing affidavit Form W-15.

WEC provided a facility design plan and constructed its primary containment vat in a manner which will minimize the possibility of contamination of surface water from spills or leaks. WEC also presented a Spill Prevention, Control and Countermeasure Plan ("SPCC") in accordance the Environmental Protection Agency's regulations which demonstrated that the daily operation of the facility would protect water resources in the area.

Protection of Oil and Gas Resources

Protestants believe that the cement bond log indicates inadequate cement to prevent channeling behind the longstring casing, and that WEC should be required to perform remedial cementing to assure zonal isolation of injected fluids. The cement bond log indicates less than 20 cumulative feet of good bond in the Ellenburger. However, because the bond log was not run under pressure due to the open hole interval below the casing, good bond is not expected to be shown on the log.

WEC has offered to run a tracer survey 30 days after injection has started. This survey will demonstrate exactly where injected fluids are going and whether there is channeling behind the pipe. The examiners recommend a permit condition be added requiring WEC to run the tracer survey and file the results with the Commission within 30 days after the survey is completed.

Additionally, protestants believe the permit should be denied because the thickness of formation between the base of the Barnett Shale and the top of the proposed disposal interval is only 160 feet. Recent Commission approvals for Ellenburger disposal wells have provided for at least 250 feet of separation. The examiners recommend that WEC be required to cement a liner in the well to accomplish at least 250 feet of separation between the base of the Barnett Shale and the open hole Ellenburger disposal interval.

Based on the record in this docket, the examiners recommend adoption of the following Findings of Fact and Conclusions of Law:

FINDINGS OF FACT

1. Notice of hearing was given to the affected persons, the County Clerk of Bosque County, all surface owners of adjoining tracts and all operators within one-half mile on January 25, 2007. Notice of this application was published in the *Bosque County News*, a newspaper of general circulation in Bosque County, on January 31, 2007.
2. The Guru SWD No. 1 was drilled in April 2007 and is completed in a manner to protect usable quality water.
 - a. The Texas Commission on Environmental Quality recommends that

- usable-quality water be protected to 1,095 feet in the area of the proposed well.
- b. The subject well has 1,130 feet of 9 5/8" surface casing cemented to surface.
3. With a cemented liner set no higher than 6,900 feet, fluids injected into the Guru SWD No. 1 will be confined to the injection interval.
- a. The subject well has 6,816 feet of 7" casing cemented with a DV tool at 3,415 feet. The top of cement behind this casing is approximately 3,900 feet.
 - b. Injection will be through tubing set on a packer no higher than 100 feet above the top of the injection interval.
 - c. There are no wellbores within 1/4 mile which penetrate the disposal interval.
 - d. A tracer survey is necessary to demonstrate that injected fluids are not migrating behind the cemented casing/liner.
4. Use of the Guru SWD No. 1 as a disposal well is in the public interest to promote the active development of the Barnett Shale in Hill County.
- a. Use of the well will provide a safe, economic means of disposal of the fluids associated with production.
 - b. Over 230 wells have been completed in the Newark, East (Barnett Shale) Field within a 20 mile radius of the proposed facility.
 - c. WEC has secured contracts from area haulers who intend to use the facility for its complete permitted capacity.
 - d. Bosque County has ordinances in place regarding the location of motor vehicle entrances to industrial facilities on County Roads.
 - e. WEC has agreed to pave the portion of County Road 1191 between State Highway 174 and the entrance to its facility.
5. With the required liner, the use and installation of the proposed injection well will not endanger or injure any oil, gas, or other mineral formation. There will be at least 250 feet of Ellenburger formation between the disposal interval and the base of the Barnett Shale.

6. With proper safeguards, as provided by terms and conditions in the attached final order which are incorporated herein by reference, both ground and surface fresh water will be adequately protected from pollution.
 - a. The primary containment facility is a large above-ground concrete vat into which trucks will be unloaded. The vat will be lined internally with Kevlar. The vat sits atop a low density polyethylene liner and sand/crushed road base.
 - b. The unloading area will be surrounded by an earthen berm.
 - c. An earthen berm surrounds the entire facility and the entire facility will be fenced for security.
 - d. A Spill Prevention, Control and Countermeasure Plan ("SPCC") has been adopted by WEC in accordance with the Environmental Protection Agency's regulations for the daily operation of the facility.
7. WEC Inc. is an active operator with financial assurance in the amount of \$25,000. WEC also maintains general liability insurance in the amount of \$1,000,000.

CONCLUSIONS OF LAW

1. Proper notice was timely given to all parties entitled to notice pursuant to applicable statutes and rules.
2. All things have occurred and have been accomplished to give the Commission jurisdiction in this case.
3. The use of the proposed disposal well will not endanger oil, gas, or geothermal resources or cause the pollution of surface water or fresh water strata.
4. The applicant has complied with the requirements for approval set forth in Statewide Rule 9 and the provisions of Sec. 27.051 of the Texas Water Code.
5. The use of the proposed disposal well is in the public interest pursuant to Sec 27.051 of the Texas Water Code.

EXAMINERS' RECOMMENDATION

Based on the above findings and conclusions, and subject to the permit conditions

and provisions in the attached Final Order, the examiners recommend that the application of WEC, Inc. to operate a commercial salt water disposal well, the Guru SWD No. 1, be approved.

Respectfully submitted,

Donna K. Chandler
Technical Hearings Examiner

Mark J. Helmueller
Hearings Examiner