OIL & GAS DOCKET NO. 8A-0262915

THE APPLICATION OF SOUTHWEST DISPOSAL SERVICE, INC. FOR A PERMIT TO OPERATE A COMMERCIAL DISPOSAL PIT, GAINES COUNTY SEMINOLE FACILITY, GAINES COUNTY, TEXAS

HEARD BY: Donna K. Chandler, Technical Examiner
James M. Doherty, Hearings Examiner

PROCEDURAL HISTORY OF CASE:

Application filed:	November 24, 2008
Protest received:	December 8, 2008
Administrative Denial:	April 22. 2009
Notice of Hearing:	September 11, 2009
Hearing Held:	October 9, 2009
Transcript received:	October 26, 2009
PFD Issued:	December 10, 2009

APPEARANCES:	**REPRESENTING:**
APPLICANT:	
Jamie Nielson Bill Anderson Chad Williams Gary Miller Jeff Kindley Greg Farrell	Southwest Disposal Service, Inc.
PROTESTANT:	
Ann Del Llano Froy Salinas	League of United Latin American Citizens (LULAC)
David Cooney Michael Sims	Railroad Commission Staff

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

Southwest Disposal Service, Inc. ("Southwest") requests authority to operate nine commercial disposal pits at its Gaines County Seminole Facility, located approximately 3 miles south of the city of Seminole. The pits will be used to dispose of solid oil and gas wastes, primarily consisting of de-watered drilling fluids and tank bottoms.

The application was administratively denied by Environmental Services. The transmittal memo from the Commission's Technical Permitting Section of the Oil and Gas Division indicates that the application was administratively denied "....because the commercial disposal of waste at this site, even with the use of liners on the pits, offers potential for pollution. The Ogallala Formation outcrops at the surface at the referenced location. The Ogallala is a major aquifer and yields fresh water at depths as shallow as 51 feet below the land surface in this area." Commission staff submitted evidence in support of its position that the application be denied.

The application was also protested by the League of United Latin American Citizens ("LULAC"). LULAC requested standing to protest the application because, according to a statement by LULAC's attorney, some of its members may suffer actual injury or economic damage by approval of the proposed disposal pits. Southwest objected to LULAC's standing in this proceeding.

LULAC'S STANDING

At the hearing, LULAC requested party status through its attorney and a former Texas State Representative. Southwest objected to LULAC's standing to participate as a party in opposition to the application. In reponse to the examiners' inquiries, LULAC's attorney stated that she appeared for LULAC "as an entity" rather than as a representative any particular member having a direct interest in the subject matter of the hearing "because we have people in our membership who suffered or may suffer actual injury or economic damage other than as a member of the general public." When asked at the hearing to identify any such member, LULAC's attorney was unable to do so. The examiners permitted LULAC's attorney to participate in the hearing by questioning applicant's witnesses and a witness presented by Commission staff, subject to the understanding that LULAC would later demonstrate how LULAC, as an organization, had standing to protest. After presentation of applicant's case and testimony presented by Commission staff, counsel for LULAC stated that she had no witness to present to show how LULAC has standing to protest the application.

Statewide Rule 8(a)(22) defines an "affected person" as a "person who, as a result of the activity sought to be permitted, has suffered or may suffer actual injury or economic damage other than as a member of the general public." While an association may have standing without participation in the proceeding by its individual members, the examiners are of the opinion that when LULAC's standing was objected to by Southwest, LULAC had

the burden to present some kind of evidence at the hearing that it, or at least one or more its individual members, would suffer actual injury or economic damage other than as a member of the general public, so that its members would otherwise have standing to participate in their own right, and that the interests which LULAC sought to protect were germane to the association's purpose. See *Texas Ass'n of Bus. v. Texas Air Control Bd.*, 852 S.W.2d 440, 443-45 (Tex. 1993). This is a showing that LULAC did not make at the hearing when given more than one opportunity by the examiners to do so.[1] While LULAC's counsel stated her conclusion that LULAC's members would suffer actual injury or economic damage other than as a member of the general public, this statement cannot be accepted as establishing LULAC's standing in the absence of any evidence that one or more of its members has a particularized, legally protected interest at stake that is distinguished from the environmental concerns of the public generally. Consequently, it is the examiners' ruling that LULAC does not have standing to protest the Southwest application. However, the examiners will consider that LULAC has observer status, and LULAC's attorney will be carried on the service list for receipt of this proposal for decision and future orders of the Commission.

DISCUSSION OF THE EVIDENCE

Applicant's Evidence

The proposed commercial disposal pits will be located on a 51.9 acre tract which is owned by Southwest. The nine proposed disposal pits will be built and operated sequentially as each pit reaches capacity and is closes. Each pit will be approximately 600 feet long and 180 feet wide, with a maximum depth of 15 feet. The capacity of each pit is slightly over 200,000 barrels. Each pit will be artificially lined and equipped with a leak detection system. A plat of the facility layout is found in Applicant's Exhibit No. 11 and is included as Attachment 1 to this Proposal for Decision.

The proposed pits will be located on the same 51.9 acre tract on which Southwest currently has a reclamation facility authorized under Permit No. 8A-0232. The facility operated for approximately 1½ years and is currently not in operation, awaiting Commission authority for the use of the proposed pits. When in operation, the solid waste generated at the facility was hauled by trucks to Southwest's disposal facility in Ector County. During operation of the reclamation facility, the liquid waste was pumped to the C. J. Energy commercial salt water disposal well located adjacent to the Southwest property. If the subject application is approved, Southwest will dispose of liquid waste in the C. J. Energy well, with solid waste being disposed onsite, making the operation economically feasible.

---

[1] With its posthearing brief on the standing issue, LULAC filed an affidavit of a former Texas State Representative purporting to describe LULAC's mission and platform and identify 3 LULAC members allegedly residing over the Ogallala aquifer in Seagraves, Texas, about 15 miles from the proposed Southwest facility. The examiners believe it unnecessary to decide whether the substance of this affidavit, if presented by testimony of a competent witness at the hearing before the record closed, would serve to establish LULAC's standing. The affidavit is plainly hearsay, and cannot be considered by the examiners.

It is estimated that an average of 15,000 barrels of waste per month will be received at the facility. After de-watering, approximately 20% of the material, or approximately 3,000 barrels, will be solid waste which will be placed in the pits.

After excavation of each pit, the entire pit will be lined with a non-woven geo-synthetic 40 mil liner, which will serve as the secondary liner. On top of the 40 mil liner, a 200 mil plastic netting will be installed, which will be overlain by a 60 mil liner of the same material as the lowest liner. This 60 mil liner will be the primary liner.[2] The liners will be anchored in place completely around each pit with an anchor trench filled with soil. Another layer of plastic netting will be placed over the 60 mil liner on the flat bottom portion of the pit. A layer of crushed caliche approximately 1 foot thick will then be placed on top of the netting, which will allow the use of heavy equipment without compromising the liners. Between the 40 mil and 60 mil liners, a trench containing a 4" perforated pipe will be placed along the entire length of each pit. Should any leak occur through the upper liner, any liquids would flow through the layer of netting and into the perforated pipe. This will provide a leak detection system because any liquids collected in the pipe will flow by gravity to one of several monitor wells connected to the 4" pipe. If the water level in any monitor well rises, a float in that well will push up a flag, alerting personnel on the site of a possible leak. Each pit will also be surrounded by a 2 foot berm.

As each pit reaches capacity, any excess moisture will be allowed to evaporate. To close the pit, approximately 2 feet of caliche or compacted soil will be placed on top of the waste. A 40 mil liner will be placed over the soil and welded to the lower liner which will be exposed by removing fill from the anchor trench surrounding each pit. This weld will insure that all waste is fully encapsulated. Another 2 feet of soil will be placed on top of the liner and compacted in a fashion which will shed water away from the closed pit. The leak detection wells will be monitored for six months after the pit is closed to insure that no liquid has accumulated in the netting between the liners, which would indicate a leak in the primary liner. Because the waste will be de-watered before being placed in a pit, Southwest expects very minimal amounts of liquid to accumulate at any time in the pit.

The direction of groundwater flow in this area is to the southeast. The location of the facility does not have any wetlands or water courses and it is not within the 100 year flood plain. The average rainfall in the area is 16.37 inches and the average evaporation loss is 72 inches.

According th the Soil Survey of Gaines County, there are four different soil types found at the 51.9 acre property, but the predominant soil is Kimbrough. The Kimbrough soils are sandy loam and cover approximately 70% of the property. The Arvana Fine Sandy Loam soils cover approximately 15% of the property, the Amarillo Fine Sandy Loam covers approximately 10% of the property and the Stegall Lime covers the remaining 5% of the property. All of these soils are described as having moderate permeability.

---

[2] The product specifications state that the 40 and 60 mil liners are high density polyethylene materials have outstanding chemical resistance, mechanical properties, environmental stress crack resistance, dimensional stability, and thermal aging characteristics. The materials have excellent resistance to UV radiation and is suitable for exposed conditions.

A water well was drilled on the property in May 2007. The total depth of the well was 162 feet, but ground water was encountered at 51 feet. The driller's log of this well indicates caliche to approximately 32 feet, underlain by sand down to 94 feet. The groundwater at 51 feet is the Ogallala aquifer, which is the major aquifer present in Gaines County and many other counties in north and west Texas.

Southwest proposes the installation of eight groundwater monitoring wells around the perimeter of the property. Each well will be completed in the shallowest groundwater zone and water from these wells will be analyzed on a scheduled basis to demonstrate that the proposed disposal is not adversely affecting the groundwater. These eight monitor wells are not the same as the leak detection monitor wells previously discussed.

Southwest presented a *Spill Prevention, Control and Countermeasure Plan*. Such plan is required by federal regulations and outlines procedures for preventing spills, and to address remediation if a spill occurs. This plan will help insure that surface and subsurface waters will not be polluted as a result of operation of the pits.

The estimated closure cost per pit, assuming the worst case condition that the pit has received no waste and will need to be completely filled in, is $397,920. When the first pit is near capacity, construction on the second pit will begin. No waste will be placed in a second pit until the first pit is closed. Southwest will submit an executed restrictive covenant for the property requiring that material excavated for construction of each pit will be stored on the property for later use to close each pit.

Protestants' Position

Environmental Services

The subject application was administratively denied by Environmental Services because the proposed pits overlie a recharge area of the Ogallala aquifer. Publications from the University of Texas Bureau of Economic Geology demonstrate that the Ogallala formation is at or near the surface in the area of the proposed pits.

According to a report from the Texas Water Development Board, the Ogallala aquifer is a major aquifer which provides water to all or parts of 46 counties in Texas. The report further states that many communities use the Ogallala aquifer as their sole source of drinking water and approximately 95% of water used for irrigation is from the Ogallala. Staff studied water well reports for seven wells within a 1 mile radius of the proposed pits. For these seven wells, water was found generally between 50 and 75 feet. The closest well is located on the Southwest facility site and the water level in that well was 51 feet, only 36 feet below the level of the proposed pits. The water well report for this well indicates a layer of top soil, caliche down to 20 feet, then a mixture of caliche and sand down to 51 feet. This means that only 5 feet of caliche would be present between the base of the pit and permeable soils which could connect to the Ogallala. Staff does not believe that the caliche is impermeable because native caliche has fractures, allowing fluids to be transmitted through it.

Thought the design of the pits includes a leak detection system connected to monitor wells, Staff is concerned that this system will only be in place during the life of each pit and for maybe 6-8 months after closure. The waste is expected to be in the pit forever and there will be no means to determine if the primary liner is somehow later compromised. Also, the monitor wells proposed to be drilled around the facility would detect any pollution to the Ogallala, but only after the pollution had occurred in the groundwater.

Staff does not believe that the pit permits should be approved because they would present a threat to pollution of a major aquifer. Staff believes that the design of the proposed pits is such that the chance of pollution is small, but that any potential harm to water resources is unacceptable.

LULAC

LULAC did not present evidence in this case but LULAC's attorney did cross-examine the witnesses. LULAC's position is that it has members which will be adversely affected by approval of this application. No evidence was presented by LULAC to demonstrate that LULAC or any of its members may suffer actual injury or economic damage other than as a member of the general public.

EXAMINERS' OPINION

The examiners recommend that the application be approved because Southwest has demonstrated that the operation of the proposed pits would not harm groundwater resources, as required by Statewide Rule 8. Rule 8 (d) (6) states as follows:

> "A permit to dispose of oil and gas wastes by any method, including disposal into a pit, may only be issued if the Commission determines that the disposal will not result in the waste of oil, gas, or geothermal resources or the pollution of surface or subsurface water."

The design of the pits is unquestionably state of the art. Staff does not disagree. However, Staff believes that the location of the proposed pits directly over a recharge zone of the Ogallala aquifer is unsuitable, regardless of the design of the pits.

The examiners believe that the use of secondary and primary geo-synthetic liners, in conjunction with the leak detection system for each pit, will provide for protection of ground water resources. Additionally, the waste to be disposed of into the pits will be de-watered, solid waste which will accumulate very little liquid anyway. In the unlikely event that the primary liner is somehow compromised, the leak detection system will provide a prompt signal if any liquid accumulates in the netting layer above the secondary liner. If such a leak is detected, the District Office must immediately be notified and operations would have to cease until the liner is inspected and repaired.

To further insure protection of the Ogallala aquifer, the examiners recommend that the monitor wells which are installed around each pit remain open for monitoring for as long as the disposal operations into any pit continues at the facility. Under Southwest's plan, these monitor wells would only be left in place for six months after a pit is closed. If Southwest chooses to operate all nine pits by renewing pits after five years, there will be the opportunity for monitoring of leaks in the primary liner for 20-25 years, assuming that each pit will have a life of 2-3 years. This continuous monitoring over the life of the entire project will provide immediate knowledge that a primary liner in any of the pits has been compromised. If no pit experiences a leak in the primary liner in 20-25 years, the examiners believe that it is highly unlikely that a leak would ever occur to the point of breaching the secondary liner and polluting ground water.

In conjunction with continued monitoring of the leak detection system associated with each pit, Southwest is also required to perform quarterly water sample analyses on each of the eight perimeter groundwater wells. This testing will also be required for the life of the project and will provide information as to whether a breach has occurred to the secondary liner in any pit.

With these additional requirements, the examiners believe that the proposed pits can be operated without adversely affecting the Ogallala aquifer.

FINDINGS OF FACT

1. Notice of this hearing was given to all affected persons at least ten days prior to the date of hearing. Notice of the application was published in the *Seminole Sentinel*, a newspaper of general circulation in Gaines County, on December 7 and December 14, 2008.

2. Southwest Disposal Service, Inc. requests authority pursuant to Statewide Rule 8 to operate nine commercial disposal pits at its Gaines County Seminole Facility, located approximately 3 miles south of the city of Seminole. The pits will be used to dispose of solid oil and gas wastes, primarily consisting of de-watered drilling fluids and tank bottoms.

3. The application was administratively denied by staff of the Commission's Technical Permitting Section because the Ogallala Formation outcrops at the surface at the referenced location.

4. The proposed commercial disposal pits will be located on a 51.9 acre tract which is owned by Southwest. Southwest has a permit to operate a reclamation facility on the tract under Permit No. 8A-0232. The reclamation facility is not currently in use but operations will resume upon approval of the proposed disposal pits.

5. Each pit will be approximately 600 feet long and 180 feet wide, with a maximum depth of 15 feet. The capacity of each pit is slightly over 200,000 barrels.

6. A recent water well drilled on the property encountered ground water at 51 feet. The groundwater at 51 feet is the Ogallala aquifer, which is the major aquifer present in Gaines County and many other counties in north and west Texas.

7. Use of the pits for disposal of solid waste will not endanger usable quality water resources, as each pit will be artificially lined and equipped with a leak detection system.

   a. After excavation of each pit, the entire pit will be lined with a non-woven geo-synthetic 40 mil liner, which will serve as the secondary liner.

   b. On top of the 40 mil liner, a layer of plastic netting will be installed, which will be overlain by a 60 mil liner of the same material as the lowest liner. The liners will be anchored in place completely around each pit with an anchor trench filled with soil.

   c. A second layer of plastic netting will be placed over the 60 mil liner on the flat bottom portion of the pit. A layer of crushed caliche approximately 1 foot thick will then be placed on top of the netting, which will allow the use of heavy equipment without compromising the liners.

   d. Between the 40 mil and 60 mil liners, a trench containing a 4" perforated pipe will be placed along the entire length of each pit. Should any leak occur through the upper liner, any accumulated liquids would flow through the layer of netting and into the perforated pipe. This will provide a leak detection system because any liquids collected in the pipe will flow by gravity to one several monitor wells connected to the 4" pipe. If the water level in any monitor well rises, a float in that well will push up a flag, alerting personnel on the site of a possible leak.

   e. Continuous monitoring of the leak detection system wells associated with each pit over the life of the entire project will provide immediate recognition of a leak in the primary liner of any pit, providing additional protection of the Ogallala aquifer.

8. The installation and monitoring of eight groundwater monitoring wells around the perimeter of the property will provide data necessary to determine if the secondary 40 mil liner in any pit has been breached. These wells will be monitored for life of the project.

9. The location of the facility does not have any wetlands or water courses and it is not within the 100 year flood plain. The average rainfall in the area is 16.37 inches and the average evaporation loss is 72 inches.

10. The estimated closure cost per pit, assuming that the pit has received no waste and will need to be completely filled in, is $397,920. Southwest is required to submit this amount of financial security prior to receiving waste in any pit.

11. Prior to receiving waste, Southwest is required to submit an executed restrictive covenant for the property, requiring that material excavated for construction of each pit would be stored on the property for later use to close each pit.

12. Waste will not be placed into a second or subsequent pit until the previous pit is closed.

13. The term of the permit for the nine pits is 5 years. Use of any pit not utilized during the term of this permit will require a new application.

CONCLUSIONS OF LAW

1. Proper notice was issued as required by all applicable codes and regulatory statutes.

2. All things have occurred and been accomplished to give the Commission jurisdiction to decide this matter.

3. Southwest Disposal Service, Inc.'s application to dispose of solid oil and gas waste in nine pits at the Gaines County Seminole Facility complies with Statewide Rule 8 and will not cause pollution of useable quality water or result in waste of oil, gas or geothermal resources.

EXAMINERS' RECOMMENDATION

The examiners recommend that the application for the eight pits be approved as set out in the attached Final Order and the nine individual pit permits.

Respectfully submitted,

Donna K. Chandler
Technical Examiner

James M. Doherty
Hearings Examiner