

**White Paper on Class I Non-Hazardous Injection Wells
Montgomery County, Texas
CROW - Citizen Residents Opposed to Wells
and Lee M. Miller, Sam Houston State University**

As the Texas Commission for Environmental Quality undergoes the 2010 Sunset Review process, concerned citizens of Montgomery County have met to discuss their recommendations for changes to TCEQ's organizational structure, regulations and processes. The suggested changes are the direct result of five years of interaction that this area has had with the agency. (Please refer to attached timeline for a description of major events shaping the recommendations made here.)

TCEQ Organizational Structure

I. TCEQ Commissioners are not held accountable.

Recommendation I: One Commissioner who is elected. As a public official, the Commissioner's picture, name and public contact information should be publicized to encourage accountability and communication. A yearly performance evaluation should be conducted and made public.

II. No other agency has sufficient review or veto power over TCEQ decisions. Some form of checks and balances should be put in place.

Recommendation II: EPA annual reviews are insufficient. In water issues, as in air, EPA (or some state authority) should have case-by-case intervention

Class I Non-Hazardous Commercial Injection Well Permitting Process

III. The TCEQ does not have an effective mechanism for public input

Recommendation III: Public input about the local need for a commercial injection well and its desirability should be a required part of the permit application process. This could be in the form of letters of support from two levels of local government. If a permit is contested, the public should be encouraged by the agency to take part in proceedings. This would mean that hearings would take place locally.

IV. Currently, the burden of proof is on citizens to provide evidence that an injection well will have negative impacts on a community.

Recommendation IV: The burden of proof should be shifted from citizen Protestants to company Applicants. Companies requesting permits should bear the burden of proof that injection well location will not have negative consequences in terms of traffic safety, noise pollution, air pollution, declining property values, etc. Failure to study these impacts, or uncertainty of facilities' impacts, should result in refusal to permit.

V. The definition of public interest is equated exclusively with job creation. Economic growth is only one factor of public interest and is itself not without a cost to the public interest.

Recommendation V: Explicitly enlarge the definition of "public interest" to include not only the possible positive economic impacts of new jobs, but also the potential environmental (pollution/contamination issues, traffic and safety impacts) and the social costs (declining quality of life, decline in property values) to a community if the permit is issued.

VI. When additional testing is ordered by TCEQ in contested case hearings, applicants are not currently required to meet all mandated parameters of the tests and suffer no consequences if they do not fulfill the requirements despite the unnecessary delays and expenses incurred by all parties.

Recommendation VI: Any additional testing that is ordered by the TCEQ in a contested case hearing must be conducted by a third party (an independent contractor with no ownership or operational relationship to the injection well Applicant, owner or operator of the injection well facility). In addition, a TCEQ representative with appropriate technical expertise should be in attendance at such testing to insure compliance with TCEQ requirements. If additional testing requested by TCEQ is not done correctly, the permit should be denied.

VII. Unlike the Texas Railroad Commission, that includes one "technical" examiner and one "legal" examiner, in a State Office of Administration Hearing (SOAH) hearing on behalf of TCEQ, SOAH examiners are not currently required to include at least one person with specific technical background in the field of the permit application under review.

Recommendation VII: TCEQ contested case hearings on permit applications conducted by SOAH on the behalf of the TCEQ should include at least one examiner with appropriate technical background in the field of the permit application under review (eg., air quality, water, geology, etc.)

VIII. The TCEQ permit application does not currently require an Applicant to provide documentary proof of ownership of property and property rights upon which permit is requested.

Recommendation VIII: Copies of deeds, leases or other forms of documentary evidence should be attached to all permit applications.

IX. TCEQ permits for which the Applicant must secure prior approval of the RRC do not require sufficient documentation from the RRC as a prerequisite for consideration by the TCEQ.

Recommendation IX: The Railroad Commission should be required to provide the following to TCEQ regarding UIC Class I application approvals: 1) a letter of approval or acknowledgement from the mineral owner(s); 2) a letter of approval from the mineral lease holder(s); 3) a letter of approval from the mineral producer(s); 4) a RRC departmental letter certifying that the Class I application has been reviewed in regard to protection of mineral interest including a summary statement of its findings; and 5) a letter from the Commissioner of the RRC certifying that the proposed Class I injection well(s) are either approved or disapproved. The Commissioners letter shall include as attachments the letters mentioned in one through four above.

X. The current process of review of permit applications by the TCEQ project manager is inadequate and no accountability exists. TCEQ places too much confidence in documents that are stamped by professional engineers working for the interest of the applicant.

Recommendation X: TCEQ project managers should be required to affix their engineering seal to the application signifying their agreement with all calculations and confirming that all requirements of the application have been met. They should be held accountable by their profession for approving applications.

XI. At present, TCEQ notifications are insufficient as they do not include the notification of mineral lease holder(s) and the minerals producer(s).

Recommendation XI. Expand required notifications as follows:

- a copy of the permit application must be provided to the mineral lease holder(s) and
- a copy of the permit application must be provided to the minerals producer(s)
- permit applications should be sent concurrent with notifications to the affected County.

XII: TCEQ operates on two sides during a contested case hearing: the Executive Director is considered one party (on the side of the permit Applicant) and the TCEQ Counsel for the Public Interest is another party (nominally on the side of the Protestants). Furthermore, fielding lawyers on two sides of each hearing is an ineffective use of tax dollars.

Recommendation XII: TCEQ should be dedicated to protecting the environment thereby representing the public interest of ALL Texans. All of TCEQ's resources, at all phases of the

September 2010

process, should be as an impartial party with no standing. TCEQ should have no position during a contested case, except as an information resource for both litigants.

XII. TCEQ does not respond appropriately to citizen concerns. Attempts to communicate with TCEQ officials are regularly met with general form letter responses and dismissive statements that discourage public input.

Recommendation XII: Direct communication between Texas residents and TCEQ staff should be encouraged. Receiving, reviewing and responding to citizen concerns in a thorough and timely manner should be a priority, particularly since it is through citizen input that most environmental threats come to light.

Class I Non-Hazardous Commercial Injection Well Regulations

XIV. No regulations expressly address the design, operation and use of the surface facilities that offload, process and temporarily store waste material received at Class I commercial injection wells.

Recommendation XIV: Class I injection well surface facilities should be regulated. It is impossible to cover all proposed design and operating requirements in this White Paper; however, the following should be included as a minimum. See Appendix I for detailed regulations:

- Minimum distance requirements from private residences, private water wells, and other wells should be established and enforced;
- Hours of operation should be limited so as not to pose a public nuisance;
- A sample which outlines the complete chemical composition (*not just pH*) and dilution rate of every load received and processed by the injection well facility must be evaluated by an independent contractor with no ownership or operational relationship to the injection well owner or operator. Written reports of such samples must be maintained by the injection well operator as well as the contractor conducting the sampling and such reports shall be available for periodic monitoring and review by regulators (i.e., TCEQ/EPA/RRC, etc., as appropriate).
- Injection pressures should be monitored and reported to regulators (i.e., TCEQ/EPA/RRC, etc., as appropriate).
- Surface facility design specifications should generally follow the same API requirements used for design of hydrocarbon tank farms and truck loading/unloading facilities (see Appendix I).

XV. Commercial Class I nonhazardous injection wells are fundamentally different from private Class I nonhazardous injection wells. As the primary business, operators' income stream is

linked to willingness to accept as much wastewater as possible. This results in an unacceptable temptation to take and inject wastewater that may not correspond to regulatory limits. With few or no controls on wastewater contents or degree of dilution this creates an unacceptable risk for pollution and/or contamination.

Recommendation XV: Commercial Class I nonhazardous injection wells should be categorized separately from other Class I wells. Stricter regulations should apply to commercial wells.

XVI. Environmental Compliance History/Certification standards for the operation of Class I injection wells are currently not given sufficient weight in TCEQ evaluation of permit applications. Applicants with no prior experience may be granted the “average by default” classification. Once the permit application has been submitted, the Applicant company may acquire new partners or majority shareholders whose Environmental Compliance History/Certification is not verified by the TCEQ.

Recommendation XVI: The environmental compliance history and /or certification of the technical expertise of the Applicant, majority shareholders of the Applicant and proposed operators of Class I injection wells must be rated "satisfactory" by the EPA. If at any time during the permitting process the Applicant or the Applicant’s partners or shareholders change, the environmental compliance history for the parties should be verified. If the compliance history of any of the interested parties is “less than satisfactory,” the permit should be denied. In the absence of compliance history, there should be specific standards for the technical training, certification, etc. for all Class I Commercial Injection Well operators.

Appendix I – Class I Commercial Injection Well Surface Facility Regulations

In reference to **Recommendation XIII**, Class I injection well surface facility regulations. It is impossible to cover all proposed design and operating requirements in this White Paper; however, the following should be included as a minimum:

1. Minimum distance requirements from private residences, private water wells, and other wells should be established and enforced;
2. Hours of operation should be limited so as not to pose a public nuisance;
3. A sample which outlines the complete chemical composition (*not just pH*) and dilution rate of every load received and processed by the injection well facility must be evaluated by an independent contractor with no ownership or operational relationship to the injection well owner or operator. Written reports of such samples must be maintained by the injection well operator as well as the contractor conducting the sampling and such reports shall be available for periodic monitoring and review by regulators (i.e., TCEQ/EPA/RRC, etc., as appropriate).
4. Injection pressures should be monitored and reported to regulators (i.e., TCEQ/EPA/RRC, etc., as appropriate).
5. Surface facility design specifications should generally follow the same API requirements used for design of hydrocarbon tank farms and truck loading/unloading facilities.
6. Storage tanks should have double bottoms with leak detection alarms. Leaking tanks must be reported to TCEQ and taken out of service until repairs can be made and inspected by TCEQ.
7. Storage tanks should have two sets of high liquid level alarms: 1) a high level alarm to warn operators of a potential problem and, 2) a high-high level alarm with automatic shut-in of the tank receiving line.
8. Install vapor recovery or odor abatement equipment on all tanks for any facility that receives materials that a normal person would consider to have an obnoxious odor.
9. Install pressure control valves to limit injection pressure to the maximum as specified in the permit.
10. Install injection pressure recording equipment that provides a continuous pressure record that cannot be manually manipulated.
11. Install flow control valves to limit waste injection volume to the maximum specified in the permit.

- 12.** Install flow recording equipment that provides a continuous record that cannot be manually manipulated.
- 13.** Provide for automatic shut-in upon failure of pressure recording or flow recording equipment.
- 14.** Provide for automatic shut-in if injection pressure or flow rate limits are exceeded.
- 15.** Install all facility piping above ground with sufficient ground clearance for detection of leaks and for routine maintenance.
- 16.** All facility tanks, pumps, and piping must be installed over a reinforced concrete pad. All concrete construction joints must be sealed with an elastomer compatible with the waste material received at the facility. The facility concrete pad must be curbed and have a containment capacity greater than the largest tank plus freeboard.
- 17.** Tanks must be hydrostatically tested after installation, but prior to service.
- 18.** Piping must be pressure tested after installation, but prior to service.

Montgomery County Injection Well Timeline

Year	Events
1995	<ul style="list-style-type: none"> • 1st injection well receives permit. (Crossroads Environmental Corp)
	<ul style="list-style-type: none"> • First company (Crossroads) went bankrupt
2001	<ul style="list-style-type: none"> • Lonestar Groundwater Conservation District founded
2004	<ul style="list-style-type: none"> • EarthCare Co took ownership of existing well site
2005	<ul style="list-style-type: none"> • TexCom Gulf Disposal purchased existing well • TexCom receives RRC approval on same day as their request (9/16/05) • TexCom submits permit application to TCEQ for existing well, 3 additional wells, and surface facility
2007	<ul style="list-style-type: none"> • (Feb) Formal request filed with TCEQ for a Contested Case Hearing • Contested Case Hearing granted • Numerous meetings of residents in area • (July) Pre-trial hearing – SOAH. Affected parties (protestants) established • (Aug) Citizens Residents Oppose Wells (CROW) organization formed • (Nov) Public meeting at school – hundreds of citizens attended • (Dec) SOAH Contested Case Hearing Conroe/Austin
2008	<ul style="list-style-type: none"> • (March) SOAH rules against CROW • (March) First meeting with residents in The Woodlands • (May) buses to Austin to protest TCEQ • (Nov) TCEQ hearing – remanded 6 months until July 2009
2009	<ul style="list-style-type: none"> • (Jan) Natural Resources Committee – Austin. Proposed legislation – 6 bills to regulate injection wells (3 in Senate and 3 in House) • (May) Only 2 of 6 proposed bills (HB 179 & SB 275) placed on General State Calendar • (June) 81st Legislative session ended – Proposed bills did not make it to floor vote • (May) TCEQ Case abated by agreement for new fall-off (or draw down) test • (Nov) EPA Region VI meeting at Conroe Public Library
2010	<ul style="list-style-type: none"> • Lonestar Groundwater Conservation District board meeting, rumored to pull out of case, board declares that it will stay in the case • (End of March) Denbury Onshore declared affected party after purchase of Conroe Oil Field • (April) pre-hearing conference • (June) SOAH hearing remanded from April • (August) RRC hearing re: injection well impact to mineral interests • (Fall) TCEQ hearing

Cecelia Hartley

From: Chloe Lieberknecht
Sent: Tuesday, November 30, 2010 4:58 PM
To: Cecelia Hartley
Subject: FW: TCEQ Sunset Review Recommendations - Citizens/Residents Oppose Wells
Attachments: TCEQ Sunset Review Recommendations - Citizens/Residents Oppose Wells

From: Edankar@aol.com [<mailto:Edankar@aol.com>]
Sent: Tuesday, November 30, 2010 4:55 PM
To: Chloe Lieberknecht
Subject: Fwd: TCEQ Sunset Review Recommendations - Citizens/Residents Oppose Wells

Ms Lieberknecht

Attached please find a copy of the White Paper regarding our organization's dealings with the TCEQ over the past three years. Please provide this report to the Sunset Review Committee for the TCEQ as our entry for the public hearing.

Comments on Sunset Advisory Commission Staff Report Texas
Commission on Environmental Quality On-site Wastewater Treatment
Research Council November 2010.

CROW - Citizen Residents Opposed to Wells
and Lee M. Miller, Sam Houston State University

General comments

1. Applaud the Sunset Advisory Commission and the review process, particularly the consideration of public input.
2. Many of the recommendations are seen as improvements to TCEQ's operational functions.

However,

1. As stated in the report summary (p. 2) "Criticisms of TCEQ's approach to regulation, including permitting and enforcement, often lie with the Commission's implementation of these tools, since in many cases the Commission has ample statutory leeway." However, implementation is then seen as beyond the scope of the Sunset Advisory Commission. Question: what is the appropriate venue to assess implementation?
2. This is linked to a second general question of accountability. If the Sunset Advisory Commission does not look at issues of regulation (permitting and enforcement), it is unclear that the TCEQ and its Commissioners are held accountable for implementation. Question: how is TCEQ and its Commissioners evaluated and held accountable to the citizens of Texas?
3. Of special importance to residents of Montgomery County is the statement on page 102: "EPA also noted significant concerns with TCEQ's processing of a permit application from four non-hazardous waste wells in Montgomery County." Question: what impact do EPA's annual reviews of Underground Injection Control (UIC) Program have on TCEQ operations?
4. What will ensure that permitting and enforcement will occur in ways that:
 - a. Protect the environment
 - b. Consider the public's interests
 - c. Allow the state economy to grow in sustainable directions

[The comments above link to the following Recommendations of the **White Paper on Class I Non-Hazardous Injection Wells, Montgomery County, Texas** under I and II.]

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accountability and communication. A yearly performance evaluation should be conducted and made public.

Recommendation II: EPA annual reviews are insufficient. In water issues, as in air, EPA (or some state authority) should have case-by-case intervention

Issue 2 TCEQ's Public Assistance Efforts lack Coordination and Focus (p. 4)
[Addresses in part issues IV, V, XII and XIII of the **White Paper on Class I Non-Hazardous Injection Wells, Montgomery County, Texas**]

If "TCEQ's mission is to protect Texas' human and natural resources consistent with sustainable economic development, and its goals are clean air, clean water, and safe management of waste." (p.11) it is still not clear why there is a need for a separate Office of Public Interest Counsel. It seems that the mission statement tasks all of TCEQ to consider the public interest as it protects Texas' resources as it supports economic development.

The portion of the report that specifically addresses TCEQ's public assistance efforts includes language that seems to support the strengthening of these functions. The refocusing of OPIC's resources is particularly important. However, three issues need to be addressed explicitly: funding for public assistance efforts; clear definition of what public interest should include; and clear performance measures for OPIC.

- a. "TCEQ also lacks specific statutory direction that makes public assistance a priority within the agency" (p. 31). Without significant investment in public interest operations, OPIC and OPA will continue to be ineffective. In fiscal year 2009, OPIC and OPA combined had resources (p. 29) equivalent to less than 1% of the overall TCEQ budget (p. 19). Furthermore, OPIC and OPA combined had staff equivalent to less than 1% of the overall TCEQ staff.
- b. "Lack of guidance on the Public Interest. OPIC's duty to represent the public interest in cases before the Commission is largely undefined. Neither the TCEQ nor OPIC have developed any formal guidance on what the public is" (p. 32).
- c. "OPIC has no performance measures" (p. 33).

[Recommendations are cited from White Paper on Class I Non-Hazardous Injection Wells, Montgomery County, Texas]

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Recommendation XIII: Direct communication between Texas residents and TCEQ staff should be encouraged. Receiving, reviewing and responding to citizen concerns in a thorough and timely manner should be a priority, particularly since it is through citizen input that most environmental threats come to light.

Issue 3 – TCEQ’s Approach to compliance History Fails to Accurately Measure Entities’ Performance, Negating Its Use as an Effective Regulatory Tool.

[Recommendations are cited from **White Paper on Class I Non-Hazardous Injection Wells, Montgomery County, Texas**]

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