September 11, 2013

Veronica Larson, Oil and Gas Division, Railroad Commission of Texas Austin, Texas 78701

RE: Public comments on the second "Draft for Informal Comment" released by the Railroad Commission of Texas on August 12, 2013 to better regulate—and notice—the process for approval of various kinds of wells, including disposal and injection wells into various underground formations.

Dear Ms. Larson:

It is our intention to endorse the contents of the letter submitted by Cyrus Reed on behalf of the Sierra Club. As the Sierra Club letter notes, "there has been substantial concern about locations of commercial injection wells related to the potential for contamination of underground water sources, surface spills, increased truck fatalities." They also mention "other issues of concern". It is some of these "other issues of concern" that we propose to address in this letter.

## We address the following issues:

- 1. The number of clustered disposal wells that are being permitted in some locations and
- 2. The potential for toxic emissions, particularly hydrogen sulfide from these sites in the Eagle Ford Shale, thus endangering human and livestock health.
- 1. **RE:** The number of clustered wells. Within the last two years, the unusual number of disposal wells clustered in an Oklahoma county were pinpointed as the cause of several earthquakes rating 4-5 on the Richter Scale in close sequence of each other. These wells were all shut down as a result. In the Eagle Ford Shale, a recent study demonstrated that disposal wells, located in conjunction with operating drilling operations and their following production activities have caused the recent earthquakes as well as subsidence issues to develop.

We ask that further consultation with \*third-party scientists conducting these studies be done by the TRC and that their recommendations with regard to limiting the number of wells clustered in a given location as well as their distance from production activities be taken into consideration. We also ask that after this consultation, regulations be issued that would

- a. disallow both excessive clustering in a given defined location beyond \*third party scientific recommendations and
- b. **prevent the location of disposal wells within a specific setback** to be determined by the recommendation of \*third-party scientists who have studied the extended geological area around the site(s) being considered for permitting.
- c. consult local authorities, including County Commissioners Courts, County Judges, municipal authorities and Groundwater Management Districts for their judgment with regard to both the locations and the number of wells within their jurisdictions or areas of concern and corresponding impact on the public water supply and public health.
- d. increase the number of seismographic stations to cover more areas in direct proportion to the number and locations of permitted and operating disposal wells, so that early events may be noted and serve as a cautionary note to permitting more wells in the area where more events are recorded

- e. set and require certification standards for disposal well operators to a level of professional competence. At present, virtually anyone can obtain a permit if they can fill out an application properly. Standards should require also annual completion of inservice hours and updating of information Re TRC standards and regulations. Any grandfathering of standards should include a time limit for operator training to bring them up to standard, at risk of loss of permit if they fail to complete any necessary training or retraining.
- f. pad siting criteria should protect wetlands and wildlife habitat in addition to those elements cited in the Sierra Club letter (streams, creeks, rivers as well as aquifers, private and commercial water well resources)
- g. increase in standards Re the materials used and construction designs to protect areas around disposal well site storage tanks sites from spillages or in event of tank failure or accidents.
- 2. The potential for toxic emission emanating from these sites. We acknowledge that air quality is the enforcement concern of the Texas Commission on Environmental Quality. However, it is well known that toxic emissions can escape from disposal well sites. At the same time, it is known and healthy common practice for the TRC often to collaborate with the TCEQ in addressing air quality issues that develop in storage operations. Therefore, it is our view that when issuing permits, the TRC should take into consideration the potential for toxic contamination of the air or endangerment of human and livestock health when approving or denying these permits. This would impact especially the location of disposal well or wells.

Toxic emissions, especially hydrogen sulfide known to be present in the condensate being produced in the Eagle Ford Shale, is of particular concern since it threatens public and livestock health. Some persons (workers and nearby residents) have been either fatally impacted or made seriously ill requiring hospitalization by these emissions in separate incidents involving hydrogen sulfide at sites not even directly related to drilling, fracking or storage.

In addition, sufficient studies have not been done to rule out negative impact on human health by long-term, consistent daily exposure to even lower amounts of hydrogen sulfide. The existing exposure limitations were determined when considering the safety of workers at plant sites whose exposure is intermittent and dependent on their work hours on site.

On the other hand, toxicologists have expressed serious concerns for workers' and the public's health when exposed to both the chemicals involved in fracking and also those involved in the products or their by-products, such as hydrogen sulfide, benzene, and toluene.

This is especially true where disposal sites include open pits, some lined and some unlined. Toxic chemicals in amounts large enough to cause scientists concerns for public health have been documented at these sites. The threat to human health is also implied if any livestock intended for human consumption are effected by toxic emissions in the air they breathe, and these toxic chemicals remain in their flesh. Studies have not ruled out that the potential for harm to human health in this way is possible, and even probable.

At this time, the small rural community of Nordheim in southwestern Dewitt County is under threat of just such emissions from a commercial oilfield waste disposal site that is to include an open pit holding highly toxic chemicals only 100-150 feet from their city limits and the local public high school. This has been permitted in spite of the objections of the local Mayor and population. This strikes us as nothing but outrageous and irresponsible behavior on the part of the operator-applicant and the Texas Railroad Commission.

We agree with the Sierra Club that best practice would be for the TRC to consult with the TCEQ if permitting disposal wells and/or pits but within a distance of 5,000 feet from a human or animal populated area, including private homes and barns, but especially schools, hospitals, nursing homes, apartments, subdivisions outside city limits, and public housing authority projects, etc.

## ADDITIONAL COMMENTS SPECIFIC TO/FROM FRIO COUNTY:

- 1. That each permit application require a 1.5 cent contribution per barrel of waste disposed of in a given county, to be returned to that county.
- 2. That each permit application be required to receive prior approval of the pertinent county commissioners court. This will allow each court to a) allow the county inspector to perform a facility plan evaluation b) update and coordinate their emergency management plan and allow effected counties to impose a fee for inspection on an optional basis.

We will appreciate the serious consideration of these comments by the Texas Railroad Commission.

Sincerely,

Sister Elizabeth Riebschlaeger, ccvi
For Sisters of Charity of the Incarnate Word
Incarnate Word General Administration Offices
4503 Broadway
San Antonio, Texas 78209
elizabeth.riebschlaeger@amormeus.org
361-676-2921

Teresa A. Carrillo Coastal Bend Sierra Club, Corpus Christi, Texas 730 Harrison St. Corpus Christi, Texas 78404

Carlos Garcia, County Judge Frio County, Texas

\*"third party scientists" refers to qualified scientists not associated with <u>environmental organizations</u>, <u>political entities</u> or research institutes associated with universities known to be the <u>beneficiaries of related industries or other stakeholders.</u> These limitations will help preserve the scientific integrity of any research from outside influences or pressure.