Appendix J:

Compliance Documentation (Geolex NMOCD Order Check List)



Requirements of Order No. R-12809-C Regarding Approval to Inject into Targa's South Eunice SWD Well

Prior to injection

- 1. Drilling of well according to Order SEE APPX. A
 - a. Submit C-101, C-102, C-144 with OCD Hobbs
 - b. TD not specified in excess of 4850 ft
- 2. Open hole logging SEE APPX. F
 - a. Porosity and resistivity
 - b. XRMI to aid in determination of affected area
 - c. Submit C-103 to OCD Hobbs with logging program
 - d. Collect several sidewall core samples for porosity and permeability measurements to aid in determination of affected area
- 3. Completion of well according to Order SEE APPX. A
 - a. Open hole completion from 4250 to 4850 ft
 - b. Submit C-103 to OCD Hobbs with cement program
 - c. Set production casing and cement to surface, no specific requirements regarding cement in order
 - d. Perform cement bond log
 - e. Submit C-103 with cementing program and CBL to OCD Hobbs
 - f. Packer set within 100 feet above casing shoe
 - g. Tubing that is "coated or designed to retard corrosion"
 - h. One-way safety valve in tubing at 250 feet
 - i. Annulus filled with diesel or other inhibited fluid we suggest water or brine since this is a mixed injection
 - j. Meters and gauges installed to monitor annulus pressure, remotely recorded and data stored for review no submission required
 - k. Meters installed to monitor injection volumes of TAG and water and injection pressure,
 data stored although it does not mention it in the order, the data need to be submitted to
 OCD in regular C-115 fillings, the order does stipulate that proof of submission is
 required at re-hearing
- 4. Testing to follow completion, post completion timing stipulated by Order SEE APPX. J
 - a. Collect sample of reservoir fluid if flowing and send to the lab for analysis NA
 - b. MIT and retesting every five years subsequent, notification must be made to Hobbs OCD prior to testing
 - c. Submit C-103 with results of MIT to OCD Hobbs
 - d. File C-103 with OCD Hobbs with description of proposed testing program, including step-rate test
 - e. Tracer and temperature injection survey at representative injection rates, order does not specifically require OCD notification prior to survey
 - f. Pressure transient "falloff" testing, order does not specifically require OCD notification prior to survey
 - g. Step-rate test, Hobbs OCD must be notified prior to testing and approve test design







- h. Submit C-103 with results of Step-rate test to OCD Hobbs
- 5. Cleanup site
 - a. Document site cleanup
 - b. Submit C-103 to OCD Hobbs with cleanup documentation
- 6. Submit C-105 to OCD Hobbs
- 7. H₂S contingency plan must be approved
- 8. Notify OCD prior to start of injection, approval is not specifically required by order

After start of injection

- 1. Injection is limited to 4075 bbl/day of any combination of TAG and water and injection pressure is limited to 1300 psi
- 2. Additional MITs must be performed every five years and whenever packer is reset
- 3. C-115 injection volumes and pressures submitted to OCD, not specifically required by order

Within one year of order and prior to requesting re-hearing

- 1. File C-103 with OCD Hobbs for approval of remedial plan for Langlie Mattix Penrose Sand Unit Well No. 252
- 2. Remedial work must include entering well, drilling out plugs to 4073 feet and then plugging back to 3700 feet using retainer squeeze cementing or verified cement plugs
- 3. File C-103 with OCD Hobbs documenting remedial work
- 4. Analyze data acquired during drilling and testing to evaluate the reservoir quality and to determine a defensible area affected by injection, data will include core descriptions, core measurements, open hole porosity and resistivity logs, XRMI fracture, breakout and resistivity imaging, reservoir fluid geochemistry, reservoir temperature survey, pressure fall off test, and step rate test data
- 5. Prepare end of well report describing drilling and completion of well, testing, reservoir analysis and determination of area affected by injection

Within one year of order

- 1. Injection must commence or extension requested
- 2. Request for re-hearing must be filed
- 3. Prepare for re-hearing

At re-hearing

- 1. Submit end of well report to demonstrate compliance with order and present and explain calculation of time required for acid gas plume to reach ½ mile from well, report will include:
 - a. Proof that well is completed to specifications of order (listed above)
 - b. Proof of approved H₂S contingency plan
 - c. Proof that injection records (C-115 filings) have been submitted and are correct, although it does not specifically say this in the order, they are referring to earlier SWD records
 - d. New injection records (C-115 filings)
 - e. Proof that remedial work on Langlie Mattix Penrose Sand Unit Well No. 252 is completed







- f. Open hole logs and XRMI
- g. Core descriptions and analyses
- h. Reservoir fluid geochemistry
- i. Results of reservoir tests step-rate test, tracer and temperature injection survey, and pressure transient test
- j. Results of MIT
- k. "Operator's calculation of the time it will take for the acid gas plume to reach ½ mile from the disposal well, there is no guidance in the order regarding how the calculation should be performed or how this calculation will be used by the Commission
- 2. May request increase in injection pressure based on results of step-rate test

Within two years of order

- 1. Commission must hold re-hearing
- 2. Commission must issue order addressing time/volume limit of injection

At time limit stipulated by order following re-hearing

1. Well shall be shut in and no further injection allowed

Note: there are no mentions of monitoring or re-calculations of affected area over time

