

How Are Class II Oil and Gas Disposal Wells Monitored to Ensure That They Are Not Leaking ?

After an oil and gas disposal well is permitted, drilled, or converted from an existing well, the disposal well operator must perform a mechanical integrity test (MIT) to assure that the injection well is mechanically sound. Then the operator must monitor injection rates and volumes and report to the Railroad Commission of Texas (RRC) the total volume injected each month along with the maximum and average wellhead injection pressure – both to ensure that the injection rates and pressures are consistent with amounts specified by the permit and to signal whether a significant pressure change has occurred.

If the disposal well shows a significant pressure change on the well or if other monitoring data indicates the presence of a leak, the operator is required to cease operations immediately, notify the appropriate RRC district office, and perform workover or repair operations necessary to correct the problem. Subsequent to any repair operations, the operator must perform another MIT to demonstrate that the mechanical integrity of the well has been restored.

Additional MITs are required at least once every five years. If a well fails the MIT, the operator must cease operations immediately and repair or plug the well within 90 days. RRC field inspectors routinely inspect RRC permitted disposal wells for compliance.

References:

- For RRC Injection and Disposal Wells Frequently Asked Questions (FAQs), go to <http://www.rrc.texas.gov/about-us/resource-center/faqs/oil-gas-faqs/faq-injection-and-disposal-wells/>.
- The RRC's Injection/Disposal Well Permitting, Testing, and Monitoring Manual can be found at <http://www.rrc.texas.gov/oil-gas/publications-and-notices/manuals/injectiondisposal-well-manual/chapter-iii/>.
- Information regarding the Texas Commission on Environmental Quality (TCEQ) Underground Injection Control Permits and Registrations can be found at https://www.tceq.texas.gov/permitting/waste_permits/uic_permits/uic.html.
- TCEQ's Oil & Gas Facilities: Compliance Resources webpage (<http://www.tceq.texas.gov/assistance/industry/oilgas.html>) covers regulations on air, water, and waste related to the oil and gas industry in Texas. This webpage also includes links to other resources such as TCEQ publication RG-482, *Common Environmental Requirements for Regulated Oil and Gas Operations*, which discusses TCEQ regulations for upstream oil and gas sites, as well as the appropriate regulatory contacts for various oil and gas activities in Texas.
- The U.S. Environmental Protection Agency (EPA) Protecting Underground Sources of Drinking Water from Underground Injection (UIC) website is <https://www.epa.gov/uic>.
- Drawings of the different UIC well types can be found on each of their individual webpages (Class I – VI) at https://www.epa.gov/uic/general-information-about-injection-wells#how_protect.

- The U.S. EPA Safe Drinking Water Act (SDWA) website is <http://www.epa.gov/lawsregs/laws/sdwa.html>.
- The Ground Water Protection Council website providing information and links relating to wells, underground injection practices, and groundwater protection is <http://www.gwpc.org>.
- The Texas Groundwater Protection Committee (TGPC) Oil, Gas, and Mining webpage (<http://tgpc.state.tx.us/oil-gas-mining/>) has additional information and links on this subject.

For additional Frequently Asked Questions (FAQs) related to groundwater quantity, groundwater quality, septic systems, water wells, administrative entities, and publications, visit the TGPC's FAQ webpage at <http://tgpc.state.tx.us/frequently-asked-questions-faqs/>.