

Kansas Administrative Regulations

Kansas Corporation Commission

Article 3.—Production and Conservation of Oil and Gas

82-3-1005. Testing and inspection requirements for underground porosity gas storage facilities and underground porosity gas storage wells; penalty.

(a) Mechanical integrity testing requirements; existing wells. Each operator of a gas storage injection and withdrawal well or a gas storage withdrawal well completed before July 1, 2002 shall demonstrate the mechanical integrity of each such well according to this regulation before July 1, 2004. Each operator of an existing gas storage observation well shall demonstrate the mechanical integrity of each gas storage observation well according to this regulation on or before July 1, 2007. Each operator of a gas storage well shall subsequently retest each well at least once every five years following the initial mechanical integrity test performed on the well. The operator and a representative of the conservation division shall mutually agree to a date for the mechanical integrity test. Test results shall be verified by the operator's representative. An extension of time to complete or conduct mechanical integrity testing may be granted upon a showing of good cause or as part of an approved alternate testing program. Approved testing procedures for gas storage wells shall include the following:

(1) Pressure tests.

(A) Gas storage wells equipped with a tubing and packer completion shall be pressure tested at no less than 300 psig or 100 percent of the maximum authorized injection pressure for the underground porosity gas storage facility, whichever is less. The pressure shall be applied to the tubing casing annulus at the surface for a period of 30 minutes and shall have no decrease in pressure greater than 10 percent of the required minimum test pressure. For tubing completions, the packer shall be set at a depth at which the packer will be opposite a cemented interval of the long string casing and shall be set no more than 50 feet above the uppermost perforation or open hole for the gas storage reservoir.

(B) Gas storage wells not completed with a tubing and packer completion shall be pressure tested at 100 percent of the maximum authorized injection pressure for the underground porosity gas storage facility. The pressure shall be applied to the long string casing at the surface after running a retrievable plug, which shall be set no more than 50 feet above the uppermost perforation or open hole of the gas storage reservoir. The test pressure shall be applied for at least 30 minutes and shall have no decrease in pressure greater than 10 percent of the required minimum test pressure.

(2) Alternate tests. An alternative test method, including a tracer survey, temperature survey, gamma ray log, neutron log, noise log, casing inspection log, or a combination of two or more of these surveys and logs, may be used to demonstrate mechanical integrity if approved in advance by the conservation division.

(b) Mechanical integrity testing requirements; newly constructed wells. Each operator of a gas storage well completed after July 1, 2002 shall demonstrate the mechanical integrity of each well according to the testing procedures established in subsection (a) of this regulation before placing the well into service as an active gas storage well. Each operator of a gas storage well shall subsequently retest each well at least once every five years following the initial mechanical integrity test performed on the well. The date for this mechanical integrity test shall be mutually agreed upon by the operator and a representative of the conservation division. Test results shall be verified by the operator's representative. An extension of time to complete or conduct mechanical integrity testing may be granted upon a showing of good cause or as part of an approved alternate testing program.

(c) Supervision of mechanical integrity testing. Conservation division representatives shall be responsible for witnessing a minimum of 25 percent of all mechanical integrity tests conducted by each storage facility operator. However, the conservation division's inability to witness a minimum of 25 percent of all mechanical integrity tests shall not result in any penalty to the operator of the underground porosity gas storage facility if the operator has complied with subsections (a) and (b) of this regulation.

(d) Requirements upon test failure. If a gas storage well fails to demonstrate mechanical integrity by an approved method, the operator of the well shall immediately isolate the leak or leaks in a manner that contains natural gas and associated fluids in

the well or storage reservoir and demonstrates that the well does not pose a threat to fresh and usable water resources or to public safety. The operator shall, within 90 days, perform one of the following:

- (1) Repair and retest the well to demonstrate mechanical integrity;
- (2) plug the well; or
- (3) file an application with the conservation division for temporary abandonment according to K.A.R. 82-3-1011.

(e) Leak detector inspections and testing. Each leak detector required under K.A.R. 82-3-1003 shall be tested once each calendar year and, if defective, shall be repaired or replaced within 10 days. Each repaired or replaced detector shall be retested if required by the conservation division. An extension of time for repair or replacement of a leak detector may be granted upon a showing of good cause by the operator of the underground porosity gas storage facility. A record of each inspection, which shall include the inspection results, shall be maintained by the operator for at least five years and shall be made available to the conservation division upon request.

(f) Penalties.

(1) The failure to perform a mechanical integrity test on a gas storage well as required under subsection (a) or (b) of this regulation shall be punishable by a \$1,000 penalty.

(2) The failure to comply with the requirements of subsection (d) of this regulation shall be punishable by a \$1,000 penalty.

(3) The failure to comply with the requirements of subsection (e) of this regulation shall be punishable by a \$500 penalty per occurrence.

(4) Each day that a violation of this regulation continues may be considered a separate violation. The penalties specified in this subsection may be increased by the commission if it finds that aggravating factors exist.

(Authorized by and implementing K.S.A. 55-152, K.S.A. 2003 Supp. 55-162, K.S.A. 2003 Supp. 55-164, and K.S.A. 2003 Supp. 55-1,115; effective, T-82-6-27-02, July 1, 2002; effective Oct. 29, 2002; amended Jan. 14, 2005.)