

Kansas Administrative Regulations

Kansas Corporation Commission

Article 3.—Production and Conservation of Oil and Gas

82-3-1215. Long-term monitoring, measurement, and testing for reservoir storage facilities and reservoir storage wells.

(a) Each operator shall perform long-term monitoring, measurement, and testing for each reservoir storage facility and reservoir storage well pursuant to a long-term monitoring, measurement, and testing plan signed by a licensed professional engineer and a licensed professional geologist. Each operator shall submit a long-term monitoring, measurement, and testing plan that includes the information required by, and demonstrates compliance with, subsections (b) through (j) and includes the information specified in this subsection.

(1) Each operator shall demonstrate that each reservoir storage well has internal mechanical integrity by using a hydraulic casing test or, if the well is constructed with tubing and packer, a pressure test of the production tubing and production casing annulus.

(2) Each operator shall demonstrate that each reservoir storage well has external mechanical integrity by running gamma ray, neutron, noise, and temperature logs from 50 feet above the point of injection continuously to the surface. A depth lower than 50 feet may be required by the director if the director deems that this requirement is necessary to determine whether the reservoir storage well has external mechanical integrity.

(3) Each operator shall meet the long-term monitoring, measurement, and testing requirements in paragraphs (a)(1) and (a)(2) according to the following:

(A) At least once each five years;

(B) after any workover involving the production casing cemented in the storage reservoir or the innermost casing or liner inside the production casing;

(C) before commencing plugging operations if the most recent tests or logs were not performed within the previous five years; and

(D) whenever required by the director, if the director determines that it is necessary to protect public health, usable water, or soil.

(4) Each operator shall evaluate the production casing or innermost casing or liner that extends the entire length of the production casing with a magnetic flux log if the director determines that it is necessary to protect public safety, usable water, or soil.

(b) Each operator performing a hydraulic casing test shall perform the following:

(1) The operator shall set a retrievable bridge plug or packer in the storage well opposite a cemented interval at a point immediately above the uppermost perforation or open-hole interval.

(2) The operator shall test the storage well at the maximum allowable operating pressure. The operator shall test the well for at least 30 minutes, and the well shall be considered to have internal mechanical integrity if the pressure does not decrease by more than 10 percent.

(c) Any operator may perform a pressure test of the production tubing and production casing annulus if the well is constructed with tubing and a packer. The operator performing a pressure test of the production tubing and production casing annulus shall apply a minimum fluid pressure of 300 psig to the tubing casing annulus at the surface for 30 minutes, and the well shall be considered to have mechanical integrity if the pressure does not decrease by more than 10 percent.

(d) Any operator may use an alternative method for the long-term monitoring, measurement, and testing activity if approved by the director. The alternative method shall be approved by the director if this method will allow the conservation division to verify mechanical integrity according to the following information submitted by the operator:

(1) A description of the alternate method and the theory for its operation;

(2) a description of the reservoir storage well conditions necessary for the use of the alternate method;

(3) specifications for the logging tool, surveys, or tests including the tool dimensions, maximum temperature and pressure rating, recommended logging speed for the tool, approximate image resolution, and casing and hole size range;

(4) the procedure for interpreting the results of the alternate method; and

(5) an interpretation of the results after the alternate method has been used.

(e) No operator shall inject air into or withdraw air from a reservoir storage well that fails to demonstrate mechanical integrity through the performance of any test or log in subsections (a) through (d), until the storage well is repaired, if necessary, and successfully retested.

(f) Each operator shall submit the long-term monitoring, measurement, and testing plan at least 60 days before commencing any long-term monitoring, measurement, and testing activity. Each operator shall ensure that an employee witnesses any activity. The operator shall schedule the activity to facilitate witnessing by a conservation division agent.

(g) Each operator shall submit a summary, including all supporting documents, of the long-term monitoring, measurement, or testing activity to the conservation division within 30 days after completion of the activity.

(h) Each operator shall submit a report to the conservation division, annually on or before April 1 on a form provided by the conservation division, listing any activity in subsection (a) performed on any reservoir storage well during the previous calendar year.

(i) Each operator shall monitor, measure, sample, and report water quality at any shallow monitoring well and deep monitoring well in a manner that allows the director to determine whether groundwater has been affected by any spill or loss of containment.

(j) Each operator shall monitor, measure, and sample at any leak detector in a manner that allows the director to determine that leaks are not occurring.

(Authorized by and implementing K.S.A. 2011 Supp. 66-1274; effective Dec. 21, 2012.)