



KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT

PROCEDURE FOR SUBMITTING A REQUEST TO INCREASE THE INJECTION VOLUME FOR A CLASS I UNDERGROUND INJECTION CONTROL (UIC) INDUSTRIAL WASTE INJECTION WELL PERMIT

Procedure #: UICI-15

Narrative:

The UIC permit for a Class I Industrial Waste Injection Well lists the injection volume limit for waste disposal into the well. In order to increase the volume limit, the UIC permit must be modified to include the increased limit. The request for the volume increase must be submitted to KDHE for review and approval. The request must be reasonable and representative of actual disposal needs of the facility. The minimum elements to be included in the request are listed in the guideline section below.

Procedure:

The request to increase the injection volume limit of a Class I UIC permit must be made in writing and include the following:

1. A description of why the modification is needed (change in processes, increased production or demand, insufficient initial estimation, etc.).
2. An evaluation of historical and estimated future volume data to support the request for a volume increase.
3. Calculations of the predicted injection zone pressure build-up within a one (1) mile radius of the well using the increased injection volume. Provide a pressure contour map for the area of review. Include calculations, equations, parameters and sources of information used to arrive at the predicted pressure build-up. The pressure should be calculated for the expected life of the injection well. The effects of other wells injecting into the same injection zone within the vicinity of the well shall also be considered.
4. Calculations of the cone of influence using the increased injection volume. Provide a map. The cone of influence is defined as that area around the well within which increased injection zone pressures caused by injection into the injection well would be sufficient to drive fluids into a source of fresh and usable water. Include calculations, equations, parameters and sources of information used to determine the cone of influence. This should be calculated for the expected life of the well.
5. Calculations of the predicted distance of wastewater flow from the injection well.
6. Appropriate calculations to demonstrate the disposal well will be capable of accepting the increased volume of waste under gravity flow. Provide the calculations, equations, parameters and sources of information used for the demonstration.