



## PROCEDURE FOR DEVELOPING A CHEMICAL TREATMENT PLAN (INCLUDING ACIDIZING) FOR A CLASS V INJECTION WELL

### Procedure #: UICV-14

(4/02/13)

#### Narrative:

The purpose of chemical treatment of a Class V well is to improve the ability of the well to accept waste fluid. These treatments are often needed to dissolve chemical precipitates or other solid deposits blocking the waste receiving formation pores and voids in order to improve flow characteristics of the formation. As required by the Class V UIC permit a plan for the treatment shall be submitted to KDHE for review and approval prior to conducting the treatment. Plan approval shall be obtained from KDHE prior to commencing the treatment. The plan shall include a prognosis and schedule for the treatment. The schedule must be mutually agreed upon so that KDHE can witness the treatment work if desired. When developing the treatment procedure, the well configuration, hydrogeology, wastestream characteristics and operating conditions must be taken into consideration. Below is guidance for developing a treatment plan:

#### Procedure:

1. Describe the well problem for which chemical(s) will be used for treatment. Describe the frequency required to treat the problem. If the well must be treated fairly frequently, there may be a compatibility problem between the formation, formation fluids and the injectate. If there is a compatibility problem, KDHE will require submittal of a report describing, in detail, how the problem will be alleviated.
2. Provide information on the type and strength of chemical(s) to be used. Include information for any additives, including inhibitors. If the chemical is to be added into the waste stream, advise of the concentration. Provide an MSDS of the chemical(s) to be used and any other additives which may be added to the treatment chemical(s).
3. Describe the procedure for injecting the chemical(s) into the well. Provide the amount of chemical(s) to be used and provide information on how the volume needed is determined. Provide the estimated injection rate of the chemical treatment fluid. Advise if the need for pressure is anticipated and of the potential range of pressure which may be used.
4. Any chemicals, such as acid, which can attack the injection tubing, must be flushed from the tubing to prevent damage from exposure to the chemical. Describe the type and the amount of flush fluid to be used. Demonstrate by appropriate calculations the volume of flush fluid is sufficient to remove the chemical from the tubing.
5. As required by the Class V UIC permit provide a written report describing the procedures followed for the treatment. Include information on the actual volumes of chemical(s) and flush fluid used, injection rate of the chemical(s), the pressure needed to inject the chemical(s) into the formation, results of the treatment and copies of work reports and pressure charts. Submit the report to KDHE within 30 days of treatment completion.