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Emplacement of Approved Materials into a Cavern

Procedure #: UICLPG-18

Narrative:

Materials approved by the Kansas Department of Health and Environment (KDHE) may be placed into a specified underground hydrocarbon storage cavern for backfilling and stability enhancement purposes. The operator must submit a plan to KDHE for review and approval prior to commencement of field activities.

Procedure:

The following procedure describes the plan criteria and reporting requirements for emplacement of approved materials into a cavern.

1. Provide the facility name, well identification, and well status for the well that will be utilized for the emplacement of the materials.
2. Name the company and/or subcontractors that will provide pumps, hoses and any fittings, and personnel that will supervise the transfer and emplacement of the approved materials into the cavern. Submit a surface schematic showing the dimensions of any steel tanks or lines, length and location of lines, location of valves and well casings, and the location any pumps utilized in the emplacement process.
3. Only materials approved by KDHE may be emplaced into the cavern. Provide route maps for transferring off-site materials.
4. Provide a wellhead surface schematic and a subsurface schematic for the emplacement well. Include the dimensions and casing seats for the well casings, the footage to the top of the salt and cavern and usable cavern volume.
5. Describe the procedure for transferring the approved materials to the emplacement site. Include an estimate of the volume of material to be emplaced, a description of the slurry process, and measures for pressure control during the emplacement process.
6. Describe the procedures to prevent spillage or leakage from pumps, tanks, and lines.
7. Describe the response procedure for any spills that may result from pumps, tanks, or lines used in the transfer process.
8. Describe the pumping pressure. The pumping pressure must be less than the maximum pressure allowed (0.75 X depth in feet to the casing shoe).
9. Describe the process for removing any materials from the well casing after emplacement.
10. Document the number of loads, date of arrival, estimated quantity, and other required information on the transfer form.
11. Provide a final report to KDHE within 30 days after the completion of the emplacement process. Include the transfer forms and total volume of material emplaced into the well.

