{In Archive} re: (EPA) underground injection control (UIC) program

Robin M. Holy to: Ray Leissner 07/21/2008 05:35 PM

History: This message has been replied to.

Archive: This message is being viewed in an archive.

July 21st 2008

Please, Mr. Leissner,

Call me at your earlies convenience.

GOD Bless
Respectfully
Robin M. Holy
Owner/Administration
http://www.VictoriaTexas.org
(361) 582-0702

re:

EPA Region 6 Internet Feedback (http://www.epa.gov/earth1r6)
Original Message: June 23rd 2008 Dearest EPA Texas This is not good, it is down right dangerous. Please do something to stop the pollution in this world. This permit is full of misrepresentation. At least take the stance, to support digging out the uranium, that will provide a made made lake of water, which is safe. The lack of concern should be cause for immediate by our Representatives. Possible contanination to groundwater, should not be considered allowable by lax policy. This kind of thoughtlessness needs more representation. Why would we continue to apply such disregard to safety, it has already proven to lead in to economic inconsistencies, that degrade the environment, and

make it inhabitable and useless. Please inspect the Application for the Permit below, and send someone with an education to end devestation to our consciences. Please educate your staff. Texas Commission on Environmental Quality NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN A NEW UNDERGROUND INJECTION CONTROL PERMIT PERMIT NO. UR03075
Respectfully Robin M. Holy

Response by EPA: Mr. Holy:

My name is Ray Leissner. I work in the Environmental Protection Agency's (EPA) underground injection control (UIC) program. EPA Region 6 oversees the Texas Commission on Environmental Quality's (TCEQ) UIC program. I am in receipt of your email of June 23, 2008 concerning uranium mining practices and would like to respond.

From your email it is clear that you are deeply concerned about a proposed application to mine uranium now under consideration by TCEQ. Your email indicates you would rather have open pit mine as opposed to the in-situ leaching technique proposed in the application. I would like to explain some of the safeguards designed into an in-situ leaching mining operation to protect the surrounding ground water and offer my opinion as to why this technique is superior to an open pit mine.

In situ leaching is the preferred mode of extraction when the ore body to be mined is too deep to be successfully pit mined. Pits, extending below the local water table, are usually unsuccessful in keeping the ground water out to the extent necessary to mine the ore body. Open pit mining is usually more expensive with higher equipment and restoration costs. In situ leaching is less expensive, leaves the surface relatively unchanged and if done correctly, will not disturb the subsurface except in the aquifer to be mined.

To ensure that the mining operation does not disturb the adjacent aquifers the in-situ leaching mining operation is conducted in a "sink" mode. In sink mode the injection and production is conducted in a fashion that extracts more water from the mining zone than is injected. Correctly done in a coordinated fashion, this technique ensures the fluids used in the extraction process will remain in the permitted mining zone. In addition to the sink, the entire mining zone is ringed by ground water monitoring wells that are periodically sampled and analyzed to determine if any mining fluids may have migrated away from the mining zone. If mining fluids are detected in the monitoring wells, that is called an excursion. If an excursion is detected, the operator must immediately report the matter to TCEQ and change his injection / production activities to draw the excursion back into the

permitted mining zone. This activity is conducted until sampling indicates the excursion is fully retracted. Excursions are very rare. If an excursion were to occur it would be well inside the facility boundary and at a distance as to pose no threat to any drinking water well.

To further reduce the risk to human health the applicant must ensure there are no water wells within the vicinity of the proposed mining operation that could be threatened in the event of an excursion. If such wells do exist, the applicant would be required to make safe alternative water sources available to the people and/or their livestock before they receive the necessary approvals from the State and EPA.

Finally I wish to add that TCEQ requires ground water restoration of the mined aquifer once the ore is removed. It is generally recognized that current technology is not sufficient to restore a mined aquifer to background levels. I liken the restoration effort to washing all of the soap out of a soaped sponge. All of the soap is never quite removed but you can get very close. TCEQ's restoration requirements require restoration to as near original background levels as is feasibly and technically possible. In addition to these man-made safety features, there are two naturally occurring safeguards. First, it is reasonable to expect that the current subsurface environment in the surrounding aquifers, responsible for the current concentrations of deposited and free uranium, will provide the same depositional influence on any remaining freed uranium that might migrate out of the mined zone after restoration. This natural safeguard should ensure any migrating free uranium concentrations do not migrate far and remain at or near pre-mining background levels. Second, it is the nature of ground water migration to attenuate contaminant concentrations. Migration through the porous media of surrounding aquifers will cause mixing and further reduce any concentration of contaminant that remains above background levels.

I hope you find this information useful. I have not discussed the EPA / TCEQ authorities and roles in detail, believing rather that your query is more about safety. If you wish to discuss this matter or go into greater detail with the ideas I have provided above I can be reached at (214) 665 - 7183. Thank you.