SIERRA CLUB
FOUNDED 1892
LONE STAR CHAPTER

To: Jose Torres

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January 31, 2011

Dr. Al Armendariz
Regional Administrator
EPA - Region VI
1445 Ross Avenue, Suite 1200
Dallas, TX 75202

Re: Request in support of Goliad County, Goliad County Ground Water Conservation District, and individually-named citizens' petition to EPA to Deny Exemption to Uranium Energy Corporation

Dear Dr. Armendariz and Water Quality Protection Division staff members:

The Lone Star Chapter of the Sierra Club supports the petition and case made by Goliad County, Goliad County Ground Water Conservation District, and individually-named affected parties and other citizens to deny an exemption to the Safe Drinking Water Act requested by Uranium Energy Corporation (UEC).

URANIUM MINING IMPACTS ON GROUNDWATER

The history of uranium mining in South Texas indicates that Texans should be leery of new uranium activity. New mining operations are being pursued even though aquifers contaminated by earlier mining operations have not been restored. The new Report on Findings Related to the Restoration of Groundwater at In- Situ Uranium Mines in South Texas"documents that failure.
New uranium exploration and mining threatens additional water contamination and potential human health impacts. Texans cannot afford to ruin local water supplies. This is why the flurry of uranium mining corporate activity is being matched by strong citizen opposition in Goliad, Kleberg, and Nueces Counties. Still, a number of mines are presently operating even as companies seek to expand production in those areas.

After Uranium Resources Inc. (URI) mined in their area, citizens of Ricardo in Kleberg County received a letter in October, 2004 signed by Mr. Flores from the EPA Region VI in Dallas stating that their drinking water showed uranium from five to eight times above EPA's current uranium standard. The letter advised the residents to "consult their family doctor…and not use these two wells for drinking water." About two years later, Dr. George Rice, hydrologist concluded in a study for the Kleberg County Citizen Review Board that URI failed to restore water quality after uranium mining.

HEALTH IMPACTS OF URANIUM MINING

According to the EPA, Uranium Mining releases harmful radio-nuclides into surrounding bodies of water, putting people, natural resources, and ecosystems at risk. These include: radon, radium, and uranium.

During both exploration and mining, area groundwater can become contaminated with uranium, arsenic, cadmium, chromium, mercury, lead, zinc and other heavy metals harmful to human health. Dr. Donald A. Molony, a renal specialist in Houston is working with a team of researchers from University of New Mexico and they conclude:

1.Uranium toxicity to the kidneys is principally through its action as a heavy metal resulting in injury to the proximal tubule and chronic scaring with some interstitial disease and is not due to any significant degree to radioactivity per say.
2. The risk to the kidneys is dose dependent and likely time dependent such that lower doses of exposure over long periods of time may be equally injurious to high exposure for a shorter period of time. Our current research is attempting in part to understand the unique contribution of long-term lower dose exposure to kidney disease and kidney failure.
3. The risk is likely substantially increased when other metals are also ingested simultaneously. In situ mining methods have the potential of also increasing other metals such as cadmium, chromium, mercury, lead, zinc etc. This has to be determined with careful testing. The kidney risk from uranium exposure is also substantially increased if other disease states are present in the population in higher percentages and these disease states would include diabetes mellitus. It is also likely that some ethnic groups might be at higher risk than others but the evidence for this last point is still weak at this time.
4. Water contamination will result in human exposure to Uranium directly through ingestion. There is additional exposure that might be also quite important through consumption of meat and other foods where the animals were grazed on land or the food crops grown on land irrigated with the contaminated water etc.
5. Monitoring for radioactivity is not sufficient to protect human health as the uranium is likely essentially "equally" toxic to the kidney as a heavy metal in both its radioactive and non-radioactive forms. It is true that radioactivity is dangerous but the absence of radioactivity does not equal the absence of risk / danger.

Dr. Au, a researcher with the University of Texas Medical Branch at Galveston, used laboratory testing in his study of health impacts from uranium mining in Texas. Dr. Au found that people living near open pit mining in Karnes County had defects in their immune systems, the type that can lead to cancer and he found that similar people who did not live near the mining did not have these defects.

WATER SCARCITY IN TEXAS

We don't have a lot of water in Texas so it is vital that we protect the quality of our drinking water. Water is the lifeblood of our economies. In-situ leach mining has been shown to be a significant

and persistent source of groundwater contamination at many sites around the world including many in south Texas. Furthermore, in situ uranium mining and the aquifer restoration process generates a large volume of contaminated water that must be disposed of in a deep injection well and is lost.

* The Texas State Water Plan establishes in law a state-wide objective to make sure there are adequate water resources available for Texas.
* Texas is a drought-prone region.
* Demands on water are increasing while supplies are expected to decrease. Population is expected to double by 2060.
* We must first and foremost make sure that people have clean and reliable drinking water.
* Obtaining water locally is cost- and energy-efficient and the best solution for the environment.
* It is irresponsible and counter to the Texas State Water Plan to allow uranium mining companies to contaminate drinking water aquifers.

Because of concerns over the recurrence of drought and population growth on the availability of water, the Texas Legislature, in 1997, established an on-going and evolving state-wide water planning and management program known as Senate Bill 1. A principal objective of the program is to develop regional management plans to ensure that sufficient water is available to sustain economic growth and to meet the needs of all of the State's residents over a 50-year planning period.

The Texas State Water Plan , developed and published by the Texas Water Development Board, is based on input from representatives of Water Planning Groups from 16 planning regions. The Water Plan lays out population and water usage statistics for each region and attempts to establish goals and policy objectives to meet the expected water needs of each region. Because a principal objective of the planning process is to work toward sustainability and availability of water, the State must consider the impact of activities such as in-situ leach mining of uranium on ground water.

UPHOLDING THE SAFE DRINKING WATER ACT IN TEXAS

The U.S. Safe Drinking Water Act (SDWA) says no injection well permit may be issued that causes contamination of an underground source of drinking water. Uranium mining by underground injection (e.g., in situ mining) is regulated under the federal Safe Drinking Water Act because it involves the injection of fluids into a well. The SDWA is a federal law that is primarily implemented by the states. Because of the mining industry's track record of contamination and failure to clean up such sites and the failure of the Texas Commission on Environmental Quality to regulate the industry effectively, it is incumbent upon the EPA to protect safe drinking water in Texas by refusing in situ leech uranium mining in our state. Because of the scarcity of this vital resource and the increasing prevalence of inter-basin transfers of water, any aquifer can be consider a drinking water.

The aquifer that UEC wants to mine in is clearly already established as a drinking water aquifer as there are many citizens' active water wells at the site.

Please protect the groundwater in this area under the provisions of the Safe Drinking Water Act and deny any exemption requested by Uranium Energy Corporation.

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Thank you.

Sincerely,

Hal Suter, Chair, Lone Star Chapter of the Sierra Club

Hal Suter

Evelyn Merz, Conservation Committee Chair, Lone Star Chapter of the Sierra Club

Evelyn L. Merz

Ken Kramer, Executive Director, Lone Star Chapter of the Sierra Club

Ken Kramer

cc: Miguel Flores
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