Plain-Language Summary

Uranium Energy Corp (UEC) has applied for a Production Area Authorization (PAA) which authorizes production at its permitted project in Bee County, Texas. The Burke Hollow project is in eastern Bee County between Beeville, Refugio and Sinton. It is situated approximately 18 miles southeast of Beeville, 14 miles west of Refugio and approximately 16 miles north of Sinton. The plant and wellfield location are situated approximately 12 miles west of Hwy 77 and is only accessible via private caliche road.

The PAA will consist of a monitor well ring approximately 30-150 acres in size and represents an area that will be developed, produced and restored as a unit. A PAA will be dedicated to only one production zone and the size and location of the PAAs will be defined based on the amount of uranium ore deposited in the sand zone. The specific PAAs will have naturally deposited uranium ore in the aquifer which causes the groundwater to exceed EPA's primary or secondary drinking water standards. The natural uranium recovered from these specific aquifers is transported to an enrichment facility out of state to be enriched into nuclear fuel pellets that power nuclear power plants. In the United States, 20% of electricity comes from nuclear power plants and 50% of the United State's carbon free energy is from nuclear.

The facility will include ion exchange pressure vessel columns, water storage tanks for resin loading, and waste disposal, a filtration system and transfer areas. The facility will also contain an administration building, storage container(s), office trailer(s), operations office trailer, laboratory trailer, chemical storage, CO2 and O2 tank storage, storage yard, temporary byproduct storage area, and employee parking.

In-situ recovery of uranium ore is a non-invasive, cost-effective process that minimizes the environmental impacts of ore extraction. ISR technology was first demonstrated by Atlantic Richfield Company at its Clay West Project near George West, Texas in the 1970s. Since that time, it has been developed into the preferred technology for uranium ore extraction from sandstone-hosted roll-front-type ores. Essentially, the process extracts uranium from porous sandstone aquifers by temporarily reversing the natural processes which deposited the uranium.

Flow rate through the facility can range from 1,000 gpm to 2,000 gpm depending on the number of wellfields in operation and has a license capacity of 1,000,000 lbs./yr. of production. A small percentage of the groundwater, from 1% to 5%, will be removed from circulation and disposed of down a deep disposal well. This disposed fluid is considered Class I non-hazardous liquid waste and is a regulatory requirement to operate. Solid waste associated with wellfield and plant operations is considered byproduct material and is required to be disposed offsite at a licensed facility. Other waste, such as cardboard, plastic, pallets and/or office waste that is not part of the plant or wellfield operations will be sent to a municipal waste facility. There will be no waste disposed of at the facility.

A robust environmental monitoring program will be utilized and defined by the radioactive material license. Air monitoring, groundwater, surface water, soil, vegetation and direct radiation monitoring will occur prior to and during operations. Prior to operations, monitoring is conducted to establish background or natural conditions of the project area. This includes radon, direct

radiation in the air, natural contamination concentrations in the groundwater, surface water, sediment, soil and vegetation. During operations, these same locations and parameters will be monitored on a regular basis to ensure contaminants are not exceeding existing background levels.

Since the ion exchange facility piping and wellfield piping that handle the solution are completely closed systems, potential for exposure to Radon-222 is minimal under normal operating conditions, thus no specific control systems for these operations are required or necessary. Airborne particulate emissions during operations are expected to be limited to fugitive dust from vehicle traffic on non-paved roads in and around the project site. Dust particulates will be minimized by restricting speed, watering roads, and keeping the number of vehicles on site to a minimum.

The waste to be injected down the disposal well includes production bleed, plant washdown water, resin wash, RO concentrate, and restoration fluids. The concentrated waste stream includes concentrations of chlorides, alkalinity, iron, uranium, radium that far exceeds natural background conditions. Injection will be at depths between 3,000 and 6,000 ft below surface as this zone represents the most optimal conditions of porosity, permeability, and thickness to safely accept the projected waste volume. Impermeable strata above the disposal zone will effectively separate the injected wastes from overlying aquifers. The disposal well is monitored continuously to ensure it operates as designed and within permitted conditions.

Migration of fluids to overlying aquifers in the wellfield has also been considered so several controls are in place to prevent this from occurring. UEC will plug all exploration holes to prevent commingling of the aquifers and to isolate the mineralized zone. In addition, prior to placing a well in service, a well mechanical integrity test (MIT) will be performed. Additionally, monitor wells completed in the overlying aquifer(s) and underlying aquifers (if present) will be sampled on a semi-monthly basis for the presence of leach solution.

External gamma radiation surveys will be performed routinely at the Burke Hollow project site. Survey locations will be used to characterize the gamma exposure rates at the facility. The required survey frequency will be quarterly in designated radiation areas and semiannually in all other areas of the plant. Surveys will be performed at worker-occupied stations and areas of potential gamma sources such as tanks.

Airborne uranium particulate levels at the Burke Hollow site are anticipated to be very low because the uranium ore stays in solution and is ionically bound to the resin. Pressure and flow rates are monitored in the wellfield to detect spills, which would be the primary cause of contaminants exceeding background levels. The Texas Commission on Environmental Quality will have direct oversight of the project, receive quarterly and annual environmental reports and conduct facility and records inspections to ensure compliance.