Reactivation of the Mt. Taylor Mine – Obstacles and Opportunities

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The Mt Taylor Mine near San Mateo, NM, the largest and deepest uranium mine in the US, was mined in the 1980s but has been on Standby status since 1990. In 2013, Rio Grande Resources Corp. submitted an application to revise its Mine Permit to Active status. The mine has in excess of 100 million pounds of recoverable uranium in the Morrison Formation, Westwater Member at 3200 feet. Good-quality ground water must be removed to access the ore, and this water will be available, after minimal treatment to human health standards, for a number of off-site uses. The mine has overcome a number of obstacles to return to Active status. Several NGOs and local citizens oppose the mine, primarily because of legacy issues concerning environmental and alleged human health impacts from the earlier (1950s-1980s) mining era in the Grants District. Shallow aquifers are being depleted, so many citizens worry that the mine will contaminate or further reduce their water resources. Mt Taylor is sacred to several tribes in the area, prompting its designation as a Traditional Cultural Property, which limits mining on the mountain. The New Mexico Mining Act designates the Mining and Minerals Division as the lead mine regulatory agency but provides the Environment Department with essentially veto authority over mining permits, leading to substantial overlapping and sometimes conflicting authority. The mine is located on private land and patented claims, so the mine is regulated by state agencies; however, a number of federal (e.g., Clean Water Act) permits are also required. In the decades since uranium was mined in the Grants District, essentially all the experienced miners have died, retired or moved away, so an entirely new work force must be recruited and trained. Finally, the mine itself presents obstacles – located very deep in or below three aquifers, temperatures of 140°F, and radon – that require extensive dewatering and ventilation equipment and operating costs. Despite these obstacles, the mine offers a number of opportunities to the community, the state and the nation. If the nation is to reduce carbon emissions, it must have nuclear power to replace coal for base-level generation. Mt Taylor Mine uranium can supply a substantial amount of that fuel source. Water produced by the mine can satisfy the water needs of a number of local users to an extent not possible with presently available resources. The Grants area is economically depressed and needs well-paying jobs that the mine can provide for a long time, and the Severance Tax and payroll taxes paid by the mine will help the statewide economy, as well. Rio Grande Resources has prepared a plan to reactivate the Mt Taylor Mine that satisfies all regulatory requirements. This plan includes collection and single-point isolation of radiologically contaminated materials, upgrades of water management and treatment facilities, and reduction of future waste rock and contaminated sediments. This plan will overcome the obstacles and promote the opportunities associated with the Mt Taylor Mine.