

SUMMARY:
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
NOTICE OF VIOLATION TO POWER RESOURCES, INC.

The State of Wyoming's Department of Environmental Quality issued a Notice of Violation to Power Resources, Inc. (PRI) for violations of state laws at its Highland and Smith Ranch operations. The Notice was issued on March 10, 2008, as a result of an investigation in October and November of 2007.

Power Resources' operations are *in situ* leach (ISL) uranium mines that began producing in 1988. The company is "currently the only significant producer of uranium in Wyoming"¹ and the Notice of Violation covers permits for two mines near Douglas, WY. PRI has applied for a third permit. With the Smith Ranch and Highlands projects, this would "result in a combined mine permit area some 41,000 acres in size."

The report on the investigation into PRI's operation says "There are a number of major long-standing environmental concerns at this operation that demand immediate attention." The violations include "serious deficiencies with both permits," inadequate reclamation, "an inordinate number of spills, leaks and other releases," inadequate bonding, and problems with staffing. Each of these topics is summarized separately.

Mine Permit Inadequacies

The Notice of Violation is based on the report from an investigation prepared by the state's Land Quality Division (LQD). The Report of Investigation says that a company's mine permit, mine plan, and post-mining reclamation plan "should describe in detail how the operation will be conducted so as to comply with all of the major regulatory requirements." The Smith Ranch and Highland mines' permits are described as "out of date and incomplete in several important areas." Problems include:

- "The approved mining and reclamation schedules are not being followed and are not current."
- "Spill detection, reporting, delineation, remediation, follow-up and tracking protocols are not defined in the permit and should be."
- The process for restoring groundwater after mining should be "thoroughly described in the permit."
- "Waste disposal facilities and processes should be clearly defined for all waste streams." One of the current permits says that wastes will be disposed at a facility that closed in 1994.
- Construction details should be thoroughly described. One of the current permits says, "well casing joints are fastened with screws," a practice that the LQD says "was discontinued years ago."
- "Topsoil protection procedures are not adequately defined to insure that disturbance is minimized and that the soil resource is protected."

¹ All quotations are from the DEQ's Notice of Violation and attached documents.

The Report of Investigation notes “PRI’s typical wellfield installation procedures result in the near total disturbance of the native vegetation and soils. This is not consistent with the regulation that allows for ‘minor disturbance’ without topsoil stripping.” A Google satellite photo of the Smith Ranch facility (attached) shows dozens of places where topsoil has been stripped.

Reclamation

The Report of Investigation says, “One of the fundamental requirements for any mining operation is that reclamation be conducted concurrently with mining. Not only is this the most efficient operational strategy but it also insures that the reclamation liability is kept at a reasonable and manageable level. This approach insures the public is protected in the event of a forfeiture.” In other words, if reclamation isn’t done regularly during the mining process, taxpayers are more likely to be left holding the bag for reclamation costs.

The Report said that the Highland mine’s Wellfield C was in production for about ten years, but the mine plan estimated that it would take “*one to three years to recover the leachable uranium...*” [italics in original]. The Wellfield has been in the process of being “reclaimed” for ten years, but the permit says that restoration would take about five years. Even after ten years of “reclamation,” the “ground water quality is similar to ‘*end of mining*’ wellfield conditions.” [italics in original]. So, ten years after mining ended, the water was still highly polluted.

There are similar problems at the Smith Ranch mine. There, the Notice of Violation says, “The permit states that it generally takes ‘three years for uranium production, and three years for aquifer restoration.’ Actual times for wellfield production and restoration are, thus far, 2-3 times longer than permit commitments.”

Spills, Leaks and Excursions

In the language of *in situ* leach mining, an “excursion” is an underground leak of mining chemicals or radioactive material, meaning it has moved outside the immediate mining area. Because ISL is done in water, this means that water has become contaminated.

The LQD’s Report of Investigation reports, “Over the years there have been an inordinate number of spills, leaks and other releases at this operation. Some 80 spills have been reported, in addition to numerous pond leaks, well casing failures and excursions. Unfortunately, it appears that such occurrences have become routine. The LQD currently has two large three-ring binders full of spill reports from the Smith Ranch – Highland operations.” Spills include June 2007 spills that totaled 202,247 gallons of mining fluids. Only 3,500 gallons were recovered.

Reclamation Cost and Bonding

The Report of Investigation slams PRI’s reclamation plan, saying, “Rough calculations based primarily on PRI’s figures reveal an alarming scenario.”

PRI’s cost estimate for mine clean-up assumes that both groundwater and surface reclamation will be completed in 4 years using the existing facilities. In contrast, the LQD estimates that

“reclamation would take 20+ years, assuming groundwater restoration was achieved without any problems...Clearly this is not an acceptable schedule....”

The Report goes on to discuss bonding for the project, which would provide funds if PRI could not afford clean-up or simply went out of business. Without a large enough bond, taxpayers are left paying for clean-up. This has happened regularly throughout the history of uranium activities.

According to the Report, PRI’s calculation of the amount of money that would be needed to cover mine reclamation doesn’t include enough funds for new equipment, maintenance, replacement, repair, or staff. The LQD estimates that “a realistic reclamation cost estimate for this site would likely be in the order of \$150 million, as compared to PRI’s current calculation of \$38,772,800. PRI is presently bonded for a total of only \$38,416,500...Clearly the public is not protected.”

Staffing

The LQD says that PRI’s staff is too small to complete reclamation. “PRI’s bond calculation assumes a staff of only 26 people, with 22 of them on a salary of only \$34,000 per year! ...Retaining competent staff will require that wages and benefits be at least \$50,000 per year.” The Report of Investigation also says “PRI’s environmental efforts have suffered from inadequate staffing, high turnover, lack of institutional memory and a low level of corporate commitment.”

State of Wyoming Enforcement Efforts

The Report of Investigation indicates that the state’s regulators in the Smith Ranch – Highland area may not have been adequate to insure that laws were followed. The Report was prepared by a Supervisor from a different part of the state “with the intention of having a fresh pair of eyes look at the operations.”

The Report also notes that the state’s Land Quality Division “is expecting numerous new ISL mine permit applications within the coming 12-18 months. This increase in workload will be a major challenge for the LQD staff.”

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