# Permitting and Licensing New Uranium Recovery Facilities

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## ABSTRACT

With the nuclear renaissance, the uranium mining industry has undergone a dramatic renaissance, as well. This was evidenced with the 2006 National Mining Association (NMA)/Nuclear Regulatory Commission (NRC) workshop drawing its largest attendance ever, with more than 180 attendees representing both established, as well as many new junior firms. And the meeting focused, not on site closure – but on the growing industry and plans for permitting new uranium recovery facilities. With this, the program provided overviews of the programs for permitting and licensing new uranium mines, from both the State and Federal perspectives. A subsequent one-day licensing workshop presented in February 2007 by NRC at its headquarters in Rockville, Maryland drew a crowd of experienced and first-time license applicants.

Modern uranium mining is both safer and more environmentally protective than past practices - due largely to the industry's maturing and continuous efforts to improve. This paper will look at the new generation of uranium mining and recovery facilities that are developing in the US, and focus primarily on US permitting and licensing requirements and trends. Understanding these trends is essential to ensuring a vibrant US uranium recovery industry; assured supplies of this important fuel for our energy and the US economy; and environmental protection.

## INTRODUCTION

In a statement entered into the record before the Senate Environment and Public Works Committee, Dr. Patrick Moore said: "Nuclear energy is clean, safe, affordable and reliable—and needs to be part of the climate change solution. This is something that all Americans should embrace on a bipartisan basis." [1] Moore's statement is echoed by many segments of society that recognize the need for US energy security, coupled with protection of human health and the environment.

The uranium recovery industry has responded dramatically to increasing demands for uranium in the past two years – according to some estimates, more than 300 junior operators have entered the market within this time period. The NRC estimates that it will receive upwards of a dozen major licensing requests to bring new recovery facilities on line, or to re-open existing facilities. In States with "agreement state" status, still more license applications are expected. In light of the growing demands for Agency reviews and approvals, applicants and their investors want to know – how long will it take for us to be up and running? And more importantly, what can we do to expedite the process?

## PERMIT PROCESS RECOMMENDATIONS

The following sections list major environmental laws related to uranium mining. These laws are followed by discussion of the NRC licensing process for uranium recovery facilities and strategies for effective license applications. Finally, the provided case histories present how problems can arise despite an applicant's best efforts as well as key current issues that may pose potential roadblocks to license or permit completion.

### Federal Environmental Laws

The modern uranium industry is subject to a wide array of federal laws – indeed, more than three dozen federal environmental laws and regulations cover all aspects of uranium mining. The following list includes some of the major laws governing uranium mining. In addition, each state has laws and regulations that applicant companies must follow as well. Following the lists of these laws and regulations are brief descriptions of three critical laws relating to site reclamation; air quality; and water quality.

- **National Environmental Policy Act**--requires interdisciplinary approach to environmental decisionmaking.
- **Federal Land Policy and Management Act (FLPMA)** --prevents undue and unnecessary degradation of federal lands.
- **Clean Air Act**--sets air quality standards.
- **Federal Water Pollution Control Act (Clean Water Act)**--directs standards to be set for surface water quality and for controlling discharges to surface water.
- **Safe Drinking Water Act**--directs standards to be set for quality of drinking water supplied to the public (states are primary authorities) and regulating underground injection operations.
- **Solid Waste Disposal Act**--to regulate generation, storage and disposal of hazardous waste and manage solid, non-hazardous waste (states).
- **Comprehensive Environmental Response, Compensation and Liability Act** owners/operators required to report releases of hazardous substances to the environment and inventory chemicals handled; remedial actions established.
- **Toxic Substance Control Act**--requires regulation of chemicals that present risk to health or environment.
- **Endangered Species Act**--plants and animals listed that are threatened; protection plans mandated.
- **Migratory Bird Treaty Act**--prohibits killing of nearly all bird species.

Other laws that may impact on uranium mining include:

- the Rivers and Harbors Act,
- the Mining Law of 1872,
- the National Historic Preservation Act,
- the Wilderness Act
- the Wild and Scenic Rivers Act
- Mining in the Parks Act
- the Emergency Planning and Community Right to Know Act
- the Law Authorizing Treasury's Bureau of Alcohol, Tobacco and Firearms to Regulate Sale, Transport and Storage of Explosives, and
- Federal Mine Safety and Health Act.

## Reclamation Laws

Reclamation is required by both state law and FLPMA. At all U.S. mining operations, detailed reclamation plans must be approved by government officials and local permitting groups before mining begins. Reclamation bonds are required to be posted by the mine operator to ensure a successful completion of the process.

Reclamation includes the following steps:

- contouring of land;
- the placement of topsoil or an approved substitute on the graded area;
- reseeding with native vegetation, crops and/or trees; and
- monitoring to assure success.

## Underground Mines

Although underground mines do not have much surface disruption, they do have reclamation responsibilities for items such as stabilizing evaporation pond areas during use and reclaiming the area when mining is completed. Ultimately, reclaimed sites are returned to many productive uses, ranging from recreation areas, farms and golf courses to wildlife areas, parks, wetlands and housing developments.

## Clean Air Act

All operators must comply with applicable Federal and State air quality standards, including the Clean Air Act. BLM does not make direct determinations that a particular Notice or Plan of Operations will or will not achieve compliance with air quality standards or even whether an air quality permit is required. Such legal conclusions are the responsibility of the respective permit authority. BLM may require operators demonstrate they have the required air quality permits for their operations by providing a copy of the permit or certification from the permitting authority. Although BLM does not permit air emission, BLM must analyze the impacts to air quality in the NEPA document prepared for a Plan of Operations. On projects where air quality is anticipated to be an issue, it is beneficial to conduct the review and environmental analysis in conjunction with State or Federal regulatory authority that is responsible for permitting under the Clean Air Act.

## Clear Water Act

All operators have to comply with applicable Federal and State water quality standards including the Federal Water Pollution Control Act, as amended. Meeting the performance standard for water quality is similar to the process discussed above for air quality. Most States have groundwater protection requirements as well as delegated authority under the Clean Water Act for impacts to surface water and the issuance of National Pollution Discharge Elimination System (NPDES) permits. Impacts to water quality must be analyzed in the environmental analysis document prepared for the Plan of Operations. BLM can address water quality under its FLPMA authority and should include measures when needed to address impacts to groundwater in its Notice review or Plan approval processes where State regulation is absent.

The best approach to ensure that operators meet water quality standards is to include the corresponding State or Federal water quality permitting agency in the review and/or approval process for the Notice or Plan of Operations. This approach allows potential pollution sources and controls in the mine plan to be

evaluated simultaneously with treatment options and effluent limits in order to ensure the water quality standards are met. Alternatively, certification from the State or Federal water quality permitting authority can serve as evidence that the proposed operation is expected to comply with applicable water quality standards.

## NRC LICENSING PROCESS

NRC licenses the following activities:

- construction, operation, and decommissioning of commercial reactors and fuel cycle facilities
- possession, use, processing, exporting, importing, and certain aspects of transporting nuclear materials and waste
- siting, design, construction, operations, and closure of waste disposal sites

The licensing process includes approving the initial license, subsequent license modifications, and license renewals.

To be licensed to use nuclear materials or operate a facility that uses nuclear materials, an entity or individual submits an application to the NRC. The staff reviews this information, using standard review plans, to ensure that the applicant's assumptions are technically correct and that the environment will not be adversely affected by a nuclear operation or facility.

NRC licenses are not required for mining operations, unless some form of ore processing is taking place. It should be noted, however, that NRC regards in-situ uranium recovery (or, formerly referred to as "in-situ leach" operations) as a form of "processing underground". This means that NRC will be involved in reviewing and licensing operations in the well fields and any satellite operations, as well as the processing plant and dryer(s). While NRC is in the process of revising its guidance to ultimately reduce the level of concurrent State and NRC involvement in the well field part of these operations, at present NRC is involved. This means that two independent (and sometimes not totally coordinated) sets of reviews may be performed, by NRC and the State in which the operation is planned.

Philosophically, the NRC adheres to the "Principles of Good Regulation" issued by commissioner Kenneth Carr[2] and the ALARA principal:

> 'Acronym for "as low as (is) reasonably achievable." Means making every reasonable effort to maintain exposures to ionizing radiation as far below the dose limits as practical, consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed materials in the public interest (see 10 CFR 20.1003).'[2]

Figure 1 presents the general flow diagram applicants for NRC licenses will follow. The NRC regulatory process is further described at http://www.nrc.gov/what-we-do/regulatory/licensing.html#process.[2]

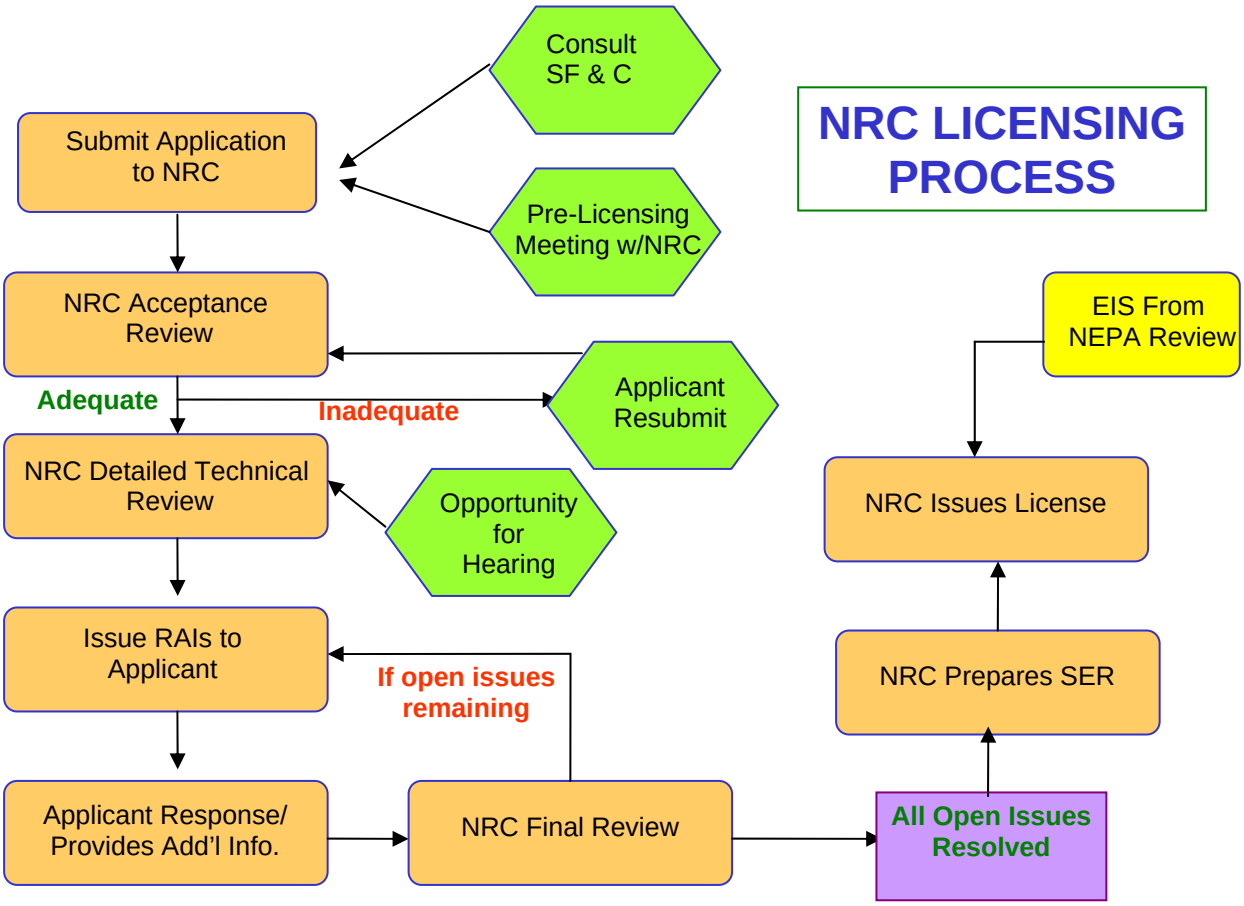


Figure 1 General NRC license flow diagram

## APPLICATION STRATEGY

### Pre-application Meetings

Depending on land status (public, private, state, mix) uranium facility applicants may need to meet with BLM, NRC and/or state agencies. Pre-application meetings are also vital in order to:
1) get to know regulators; 2) gain understanding of agency expectations; and 3) allow the agency to better budget resources.

This is also an important time to start building a relationship with the local community.

### Baseline Studies

Before any profit can be realized, the application process must be supported by baseline studies. Although the tendency is to minimize cost at this crucial time, a more prudent course is – resist this urge. Do not cut costs or corners. You WILL want these data later, especially for reclamation and closure purposes.

### Prepare Applications

Review applications and licenses issued for similar projects that have been approved to speed permit processes. If proposing any new process, technology, etc. discuss first with appropriate regulators and add additional time for review.

### Agency Reviews and Approvals

The regulatory review and approval processes can be lengthy process, especially if the applicant has several agencies and permits involved. Here are some measures to expedite the process for all parties:

- First, if an applicant intends to submit a plan of operations with the BLM, the applicant will have to go through the NEPA EIS process – a minimum of an 18 month process.
- In addition, applicants should be sure to build time for appeals into your timeline. Uranium mining is controversial and there are some special interest groups that attempt to appeal almost all uranium project approvals.
- Finally always, "expect the unexpected" as the following case study reveals.

## WHO WOULD HAVE THOUGHT – A CASE STUDY

### The Hydro Resources Inc. Experience

In the long history of licensing domestic ISL uranium recovery projects/facilities, the recent administrative litigation involving Hydro Resources, Inc.'s attempt to license an ISL project in the State of New Mexico most accurately represents the potential issues that may be raised during the licensing process or an administrative hearing. This litigation spanned almost seven years and addressed many of the primary issues associated with preparation and submission of a proper license application. Further, this litigation also resulted in several new or clarified interpretations of existing regulations that will provide potential applicants with increased understanding of such regulations as part of their license application.

### Groundwater Restoration and Financial Assurance

It is well-settled that the regulatory community views financial assurance for groundwater restoration and site reclamation as the primary health and safety issue for ISL uranium recovery projects. NRC regulations for financial assurance for uranium recovery licensees (both conventional and ISL) require that licensees post adequate financial assurance to cover all aspects of groundwater restoration and site reclamation in accordance with the following standard:

> "The licensee's surety mechanism will be reviewed annually by the Commission to assure, that sufficient funds would be available for completion of the reclamation plan *if the work had to be performed by an independent contractor*. [5]

As an interpretation and implementation of this standard, NRC composed NUREG-1569 entitled *Standard Review Plan for In Situ Leach Uranium Extraction License Applications* in which NRC delineated a process-oriented approach to preparing license applications in compliance with Appendix A Criteria. One aspect of NUREG-1569 encompasses the proper procedures for calculating a proper financial assurance cost estimate for groundwater restoration and site reclamation. Among other aspects of these procedures, NUREG-1569 specifically states that:

> "[t]o the extent possible, the applicant should base these assumptions on experience from *generally accepted industry practices*, from research and development activities at the site, or from previous operating experience in the case of a license renewal."[6]

As a result of this recommendation, ISL uranium recovery applicants/licensees traditionally calculate financial assurance cost estimates using certain fundamental assumptions. During the HRI administrative litigation, two of these fundamental assumptions were challenged by various opposition parties: (1) ISL uranium recovery facility employees may perform multiple, unrelated tasks during site reclamation and (2) the use of existing major site equipment may be taken into account when calculating cost estimates. The opposition argued that these two fundamental assumptions were inconsistent with Criterion 9's requirement that cost estimates be calculated assuming that an *independent contractor* would perform groundwater restoration and site reclamation. The opposition asserted that an *independent contractor* would be required to use its own employees performing single tasks and newly purchased equipment to perform groundwater restoration and site reclamation.

In response to this assertion, HRI argued that these two fundamental assumptions are important parts of *generally accepted industry practices* due to the nature of ISL uranium recovery. As a general proposition, ISL uranium recovery licensees traditionally use "life-cycle" worksheets or procedures to accurately calculate financial assurance cost estimates over the life of an ISL project. The challenged fundamental assumptions noted above generally are central to the creation of an accurate cost estimate using such worksheets.

With respect to the use of site employees to perform multiple, unrelated tasks, ISL uranium recovery facilities employ a minimum number of employees during active operations, because the recovery process is highly automated. The ISL uranium recovery industry has often likened the equipment used for uranium recovery as a "giant water softener" and has demonstrated over several years that the process allows site employees to multi-task, so long as they are fully qualified to perform each task. After cessation of active operations, the number of site employees required for groundwater restoration is reduced because restoration procedures do not require the same complex procedures as active operations. Such site employees also would be experienced with the site-specific aspects of the particular ISL project and would be better able to address its needs. Additionally, the ISL uranium recovery industry has refined the operational aspects of groundwater restoration to further minimize personnel needs without endangering public health and safety or the environment. Thus, HRI concluded that the *generally accepted industry practice* of permitting site employees to perform multiple, unrelated tasks during groundwater restoration was appropriate for its financial assurance cost estimates.

HRI also asserted that the plain language of Criterion 9 did not, in any way, address the issues of using site employees or existing major equipment. Indeed, NRC Staff's initial brief on appeal for this issue specifically disputed the opposition's conclusions regarding Criterion 9's "plain language." For example, NRC Staff stated, "[n]either in this [cited] provision, nor in any other portions of Criterion 9, does the regulation delve into details regarding assumptions to be made on an independent contractor's labor requirements" and "[t]he word 'equipment' appears nowhere in the text of Criterion 9, and thus, on its face, criterion 9 cannot fairly be read as requiring a consideration of how much it would cost to lease

certain pieces of equipment." Given the lack of regulatory interpretation of Criterion 9, HRI argued that NUREG-1569's language regarding *generally accepted industry practice* should apply, since NRC traditionally interprets the meaning of its regulations in guidance documents for the benefit of its licensees. Also, HRI asserted that NRC's required "15 percent contingency" factor for cost estimates and Appendix A's requirements for annual surety updates provided adequate safeguards for ensuring that sufficient funding would be available for groundwater restoration and site reclamation.

Moreover, HRI argued that espousing the opposition's position regarding existing major site equipment would result in all ISL uranium recovery licensees being forced to purchase the entire ISL project a second time. HRI stated that adoption of the opposition's position would force these licensees to essentially remove all well-field equipment, recovery systems, and other technology and heavy equipment and repurchase the same prior to initiating groundwater restoration. Given this position and the fact that surety bonds and other financial assurance instruments traditionally utilized by the industry must be paid for on a "dollar-for-dollar" basis, HRI concluded that adoption of this position potentially could result in the marginal cost of uranium production increased to a level at which production would cease.

After a through review, the Commission agreed with HRI and determined that ISL uranium recovery licensees should be permitted to assume that site employees could perform multiple, unrelated tasks during groundwater restoration and that existing major site equipment may be taken into account when calculating financial assurance cost estimates. The Commission supported HRI's arguments regarding *generally accepted industry practices* and the fact that adequate regulatory safeguards exist for guaranteeing the availability of sufficient financial assurance funding. As a result of this ruling, the industry now can continue to calculate financial assurance cost estimates using *generally accepted industry practices*, such as those mentioned above. Given the likelihood of new ISL uranium recovery projects being licensed in the coming years, this ruling is crucial to the preparation of accurate financial assurance cost estimates.

## Radiological Air Emissions Contributing to Site-Specific Dose Assessments

The HRI administrative litigation also addressed the applicant's dose assessment for public dose from radiological air emissions from one of the Crownpoint Uranium Project's four (4) proposed recovery sites. This proposed recovery site was formerly the site of conventional uranium *mining* operations from a previous site owner and, as a result of such operations, residual ore dust and other ore remnants remained at the site. When calculating the appropriate dose assessment, HRI determined that such materials were not licensed and, as such, constituted "background radiation" rather than an "increment" above background radiation that would contribute to the applicable assessment. The opposition claimed, among other things, that the materials were the result of anthropogenic activities (mining) and that such material actually constituted an NRC-licensed material because it was under the control of the proposed licensee (HRI). Further, the opposition claimed that the material constituted 11e.(2) byproduct material, because the material was created as a result of uranium recovery operations.

HRI responded to these contentions by stating that materials created from anthropogenic activities still may constitute a portion of "background radiation." HRI rested its argument on several positions, including the fact that, as a general proposition, NRC does not have statutory or regulatory jurisdiction over *mining* and the resulting materials from such *mining*. HRI argued that neither NRC nor its predecessor, the Atomic Energy Commission (AEC), regulated uranium mining, either at the mine, on ore storage pads at the mine or during transport to a mill facility regardless of the ore grade (i.e., greater than 0.05 percent, by weight) until it reached the milling facility.[7] In its Generic Environmental Impact Statement on Uranium Milling (GEIS), NRC states that it "has no direct authority over *uranium mining or mine wastes*.[8] The GEIS also discusses NRC's regulatory authority over uranium *milling* with respect to uranium ore:

> "Section 205(a) of the UMTRCA [Uranium Mill Tailings Radiation Control Act of 1978] amends the Atomic Energy Act of 1954 by adding a new Section 84 which states in part that 'the Commission shall insure that the management of any byproduct material, as defined in section 11e.(2) , is carried out in such a manner as…the Commission deems appropriate to protect public health and safety and the environment from radiological and nonradiological hazards *associated with the processing* and with the possession and transfer of such material…"[9]

Further, since only uranium *milling* or *processing* (i.e., ISL uranium recovery as "milling underground") can create 11e.(2) byproduct material and Section 17 activities were limited exclusively to *conventional mining* activities, none of the material on the surface or in the underground mine workings at HRI's proposed project site could be regulated by the Commission as byproduct material.

Further, both HRI and NRC Staff agreed that the material at the proposed project site more accurately fit the moniker of technologically enhanced naturally occurring radioactive material (TENORM) and not any of the classes of material regulated under the AEA (i.e., source, special nuclear or byproduct material). Given that the material was not within NRC's jurisdiction and that NRC's statutory mandate is limited to the class of materials expressly named in the AEA, both HRI and NRC Staff agreed that such material must constitute TENORM.

Both the Atomic Safety and Licensing Board and the Commission supported HRI's and NRC Staff's position that radiological air emissions from mining spoils not under the jurisdiction of NRC constituted a portion of "background radiation" and, thus, did not need to be included in the site-specific incremental dose above "background radiation for dose assessments. On appeal, the Commission concluded that mining spoils indeed fit the moniker of TENORM and are outside the jurisdiction of NRC. Further, the Commission supported HRI's and NRC Staff's reading of the definition of "background radiation" as including materials from anthropogenic activities. As a result of this ruling, licensees with unique site-specific aspects, such as former mining (uranium) sites, may characterize radiological emissions from residual materials as "background radiation." Moreover, licensees now have sufficient precedent to demonstrate that NRC does not regulate mining or residual materials from such mining.

## CAUTION – ROADBLOCKS MAY BE AHEAD

### NRC Rulemaking on Groundwater Restoration at In Situ Leach Facilities

In early 2006, the Nuclear Regulatory Commission (NRC) voted to pursue a very limited rulemaking to address dual jurisdiction by NRC and states over groundwater protection at *in situ* recovery (ISR) facilities. The scope of the rulemaking is how NRC can defer active regulation of groundwater at ISR facilities. The Commission directed the staff to provide a proposed rule by January 2007, followed by a final rule in September 2007. Eliminating dual jurisdiction will significantly reduce costs for uranium producers.

It appears, however, this rulemaking will be delayed due to Environmental Protection Agency (EPA) concerns about NRC's characterization of EPA's jurisdiction and NRC statements about "generally applicable" Uranium Mill Tailings Radiation Control Act restoration standards. Discussion of these concerns with both EPA and NRC lead to the conclusion that the quickest route to get the NRC rulemaking back on track is to have a meeting involving EPA, NRC, the states and industry to air any remaining concerns and come to agreement on the path forward. A date for such a meeting had not been set at the time of this paper.

## Indian Country Determinations

When attempting to license new ISL uranium recovery projects, Native American Tribes often are at the forefront of the opposition to such projects. Tribal opposition has taken several legal administrative forms including, most recently, a challenge to the jurisdiction of the State of New Mexico to issue a UIC permit to a proposed licensee (HRI) on the grounds that the proposed project site resides in "Indian country." By way of background, under the Safe Drinking Water Act's UIC Program, EPA permits States and Native American Tribes to apply for "primacy" over various classes of injection wells, including Class III wells used for ISL uranium recovery.

By rule, States or Tribes that do not have "primacy" over a given class of wells have their well-specific program administered by EPA. In New Mexico, the State maintains "primacy" over Class III wells for ISL uranium recovery on State or privately owned lands. However, given that Native American Tribes occupy what is termed "Indian country," the New Mexico Navajo Nation maintains jurisdiction over such "Indian country" lands. But, since the Navajo Nation does not have "primacy" over Class III wells, EPA administers the issuance of UIC permits on such lands.

In the case of HRI, the State of New Mexico issued a UIC permit for the first of four proposed project sites several years ago. Later, the Navajo Nation challenged that ruling claiming that the proposed site was subject to Navajo jurisdiction and, as such, that EPA was responsible for issuing such permit. The challenge was elevated to the United States Court of Appeals for the Tenth Circuit where the court determined that the issue should be remanded to EPA to determine whether or not the first proposed project site resided in "Indian country". As a result of this ruling, both parties sought to resolve this issue with EPA as the NRC administrative litigation progressed to conclusion.

The concept of "Indian country" is codified at 18 U.S.C. § 1151(b) of the United States Code. Prior to the enactment of this statute, various federal and state courts created a body of jurisprudence that provided guidance to other courts and federal and state agencies regarding which issues are relevant to an "Indian country" inquiry. Drawing on these decisions, in 1948, Congress enacted 18 U.S.C. § 1151 in an attempt to legislate a definition of "Indian country." Section 1151 included three specific categories of lands that qualify as "Indian country:"

(a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;

(b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state; and

(c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.[10]

Even though the "Indian country" definition is currently located in a criminal statute, Congress has used the Section 1151 definition in civil statutes as well. *See e.g.,* Indian Child Welfare Act of 1978, 25 U.S.C. § 1903(10) (2005). The legislative history of the statute demonstrates that Congress incorporated prior Supreme Court jurisprudence into its statutory language. Indeed, the United States Department of Interior's Office of the Solicitor agreed stating, "[t]he reviser's note to 18 U.S.C. § 1151 states that the 'definition is based on [the] latest construction of the term by the United States Supreme Court in U.S. v. McGowan…, following U.S. v. Sandoval….'" *See* United States Department of Interior, Office of the Solicitor, *Whether the Circle of Nations Wahpeton Indian School Campus Constitutes "Indian Country,"*

(August 16, 1996). This reviser's note also states that Indian allotments were added in accordance with the Supreme Court's decision in U.S. v. Pelican.

Over time, the issue of the proper analytical method for determining "Indian country" status under the federal statute was discussed in 1998 by the Supreme Court in *State of Alaska v. Native Village of Venetie Tribal Government*.[11] In *Venetie*, the Supreme Court addressed the proper standard for determining whether a parcel of land is "Indian country" as a "dependent Indian community" under 18 U.S.C. § 1151(b) in an appeal from the Ninth Circuit's decision noted above. The Supreme Court reversed the Ninth Circuit's holding and concluded that the lands were not "dependent Indian communities" for purposes of Section 1151(b) and, thus, was not "Indian country."

The Supreme Court's analysis in *Venetie* focused on the fact that standards for "Indian country" determinations based on the status as a "dependent Indian community" pronounced by the Court prior to the enactment of Section 1151(b) (e.g., *Sandoval Pelican, McGowan*) were merely codified in Section 1151(b) and that their analyses continue to govern such determinations. Indeed, the Court stated that, "[t]he entire text of § 1151(b), and not just the term 'dependent Indian communities' is taken virtually verbatim from *Sandoval*, which language we later quoted in *McGowan*."

Based on its interpretation of these cases and Congressional intent in enacting Section 1151(b), the Court stated that "dependent Indian communities" are defined as "a limited category of Indian lands that are neither reservations nor allotments, and that satisfy two requirements—first, they must have been set aside by the Federal Government for the use of the Indians as Indian land; second, they must be under federal superintendence." With respect to these two criteria, the Court stated that, in each of its prior cases, "we relied upon a finding of *both* a federal set-aside and federal superintendence in concluding that the Indian lands in question constituted Indian country…." (emphasis added). With respect to "federal set-aside," the Court reasoned that "Indian country" requires that the federal government "take some action setting apart the land for use of the Indians." This requirement, the Court concluded, would ensure that "the land in question is occupied by an 'Indian community." With respect to "federal superintendence," the Court expressly rejected an argument posed by the Tribe by stating that, "it is *the land in question*, and not merely the Indian tribe inhabiting it, that must be under the superintendence of the Federal Government." This requirement, thus, "guarantees that the Indian community is sufficiently 'dependent' on the Federal Government that the Federal Government and the Indians involved…are to exercise primary jurisdiction over the land in question."

Given Congress' "traditional practice" of setting aside lands for Indian use, the Court concluded that the lands in question did not satisfy either of the two prongs of its "Indian country" test and, therefore, such lands were not "Indian country" under Section 1151(b). The Court summarized its conclusion by stating that "[o]ur holding is based on our conclusion that in enacting § 1151(b), Congress codified these two requirements, which previously we had held *necessary* for a finding of 'Indian country' generally." (emphasis added). The *Venetie* approach has been subsequently applied and interpreted by several different courts.[12]

This month EPA, in consultation with the Department of the Interior (DOI), made that determination and found that HRI's section 8 is Indian Country under federal law. EPA's determination is based on adoption of a legal analysis used by the Court of Appeals for the Tenth Circuit (Tenth Circuit) that many in the industry objected to as inappropriate under the U.S. Supreme Court's decision in Alaska v. Native Village of Venetie. 522 U.S. 520. (1998).

EPA and DOI acknowledged that Section 8 is owned by HRI in fee simple, is not and never has been part of a reservation, and is not allotted lands. EPA and DOI's determination was therefore based on whether Section 8 is part of a dependent Indian community. While EPA and DOI

reviewed the Venetie decision, the agencies concluded that Tenth Circuit legal precedent required the agencies to use the "community of reference" analysis adopted by the Tenth Circuit in Pittsburg & Midway Coal Mining Co. v. Watchman, 52 F.3d 1531 (1995). The agencies reached that conclusion despite its similarity to the Ninth Circuit analysis the Supreme Court struck down in Venetie. The Watchman test requires a determination of a proper community of reference by looking to the status of the area in question as a community and the relationship of the area in question to the surrounding area.

Using the Watchman community of reference analysis, EPA and DOI looked well beyond the ownership of Section 8 to a much broader geographic area, the Church Rock Chapter of the Navajo Nation. Section 8 is part of the checkerboard of public/private lands that make up the Church Rock Chapter. The agencies looked at the following to determine that the Church Rock Chapter was the appropriate community of reference: (1) 78 percent of the land within the Church Rock Chapter is in trust for the benefit of the Navajo Nation; (2) 98 percent of the population within the Church Rock Chapter is Navajo; and (3) the chapter and the Navajo Nation provide the majority of infrastructure with the chapter. With the Church Rock Chapter as the community of reference, the agencies had no difficulty concluding the area was set aside for the use of Indians and under federal superintendence and therefore was Indian Country under Venetie.

EPA and DOI found the Watchman community of reference analysis was required for several reasons. First, the Tenth Circuit itself has held that "nothing in Venetie speaks to the propriety of the . . . determination of the proper community of reference." Second, in recent cases, the Tenth Circuit continues to use the community of reference analysis. Thus, DOI and EPA concluded that "in order to follow the terms of the court's remand, as well as the most recent law from the Tenth circuit, a community of reference analysis is necessary" prior to applying the Venetie test.

## MINING LAW REFORM

With the recent changes in Congress, especially the change in the Chairman of the House Resources Committee, we can anticipate more serious legislative attempts to amend the Mining Law of 1872. The new chairman, Representative Nick J. Rahall (D-WV), has long expressed dissatisfaction with the Mining Law. In fact, he has recently public announced reform of the Mining Law as one of his top priorities. His previous attempts to amend the Mining Law have included the following components:

- Permanent Location and Maintenance Fees
- Permanent Patent Moratorium (except for certain grandfathered claims)
- 8 % Net Smelter Royalty
- Protection of Special Places – places certain lands off-limits to Location and requires Unsuitability Review
- Environmental Protection Standards (to address Soils; Stabilization; Hydrologic balance; Surface Restoration; Vegetation; Excess Waste; Sealing; Structures; Cultural, Paleontological and Cave Resources; Road and Structures; Drill holes; Leaching

operations and impoundments; Fire Prevention and Control; Temporary cessation; and site stabilization)

- Establishment of an Abandoned Locatable Minerals Mine Reclamation Fund
- Citizen Suits
- Compliance/Civil and Criminal Penalties

Any changes to the Mining Law could have significant financial impacts for mining operations on public lands.

## AGENCY BUDGETARY CONSTRAINTS

The federal agencies most critical to getting uranium projects off the ground are under budget constraints that impact the ability to process permits necessary for domestic exploration and mining projects. For example, BLM's Mining Law Administration Program (MLAP) funding has remained flat since 1999 despite an over-300 percent increase in the number of mining claims filed over the past five years. Many of the new claims filed are for uranium. NRC's budget for uranium recovery licensing is similarly constrained. The uranium recovery program is such a small part of NRC's orbit and is overshadowed by nuclear reactor and homeland security concerns. The budgetary problems faced by these agencies are exacerbated by the failure of the last Congress to pass appropriation acts for fiscal year 2007. It appears that the new Congress is similarly disinclined to focus on appropriations and intends to fund agencies through a continuing resolution. As a result, the agencies are stuck with their 2006 budgets in spite of increased costs and obligations. Delays in obtaining permits and other authorizations can be a substantial impediment to the financing and development of mining projects in the United States.

## CONCLUSION

The commercial nuclear fuel cycle that is responsible for the production of energy from nuclear sources is a complex process. Both proponents and opponents of the use of nuclear power focus solely on the advanced stages of this process (i.e., nuclear reactors, fuel fabrication facilities, and enrichment facilities). However, uranium mining and processing facilities are an often overlooked but crucial aspect of this process, because no nuclear reactors could operate without the initial mining and processing of uranium.

Currently, the renewal of interest in siting and developing new uranium recovery facilities has created new regulatory questions and incited a sense of urgency on the part of potential licensees and regulatory authorities alike. Both potential licensees and regulatory authorities must not just be prepared to accept and review new license applications, but must also be prepared to anticipate and address likely objections raised by opponents of the development of valuable uranium resources.

Given the dramatic increase in the need for energy from commercial nuclear sources, potential licensees and regulatory authorities cannot afford to ignore these likely objections as they will cause the licensing process to grind to a halt if they do. Therefore, it is crucial to the development of new uranium resources for the production of energy that all aspects of the siting and development of new uranium recovery projects are done correctly the first time.

## REFERENCES

1. Statement of Dr. Patrick Moore, Co-Founder and former leader, Greenpeace and Co-Chair, CASEnergy Coalition to the U.S. Senate Committee on Environment and Public Works, January 30, 2007

2. U.S. Nuclear Regulatory Commission, Announcement No. 6, January 17, 1991. Memorandum from Kenneth M. Carr to All NRC Employees, Subject: PRINCIPLES OF GOOD REGULATION. See also: http://www.nrc.gov/who-we-are/values.html#principles.

3. http://www.nrc.gov/reading-rm/basic-ref/glossary/alara.html

4. NRC regulatory process – see: http://www.nrc.gov/what-we-do/regulatory/licensing.html#process.

5. 10 CFR Part 40, Appendix A, Criterion 9 (2007) (emphasis added).

6. NUREG-1569 at 6-24 (emphasis added).

7. *See* United States Nuclear Regulatory Commission, *Generic Environmental Impact Statement on Uranium Milling*, NUREG-0706, Volume 1, A-89 (September 1980) (hereinafter "GEIS) (offering interpretation of NRC regulatory authority over milling as regulating those activities *associated with processing* and finding that uranium ore on a milling site's ore pad meets the requirements). To the best of HRI's knowledge, NRC does not regulate mining, ore at a mining site or ore in transport to a uranium milling site. *See generally* Exhibit A at 16.

8. GEIS at A-94.

9. GEIS at A-89 (emphasis in original).

10. 18 U.S.C. § 1151 (2005).

11. *See* 522 U.S. 520 (1998).

12. *See e.g., U.S. v. Roberts*, 185 F.3d 1125 (10th Circuit, 1999); *State of New Mexico v. Del E. Romero*, 84 P.3d 670 (N.M. 2003); *State of New Mexico v. Frank*, 132 N.M. 544 (N.M. Sup Ct. 2002).