

HOUSE BILL 1161 AND THE ACT

JOHN D. FOGNANI, ESQ.

FOGNANI & FAUGHT, PLLC

DENVER, COLORADO

NATIONAL MINING ASSOCIATION AND NUCLEAR REGULATORY COMMISSION

URANIUM RECOVERY WORKSHOP

WEDNESDAY, JULY 1 – THURSDAY, JULY 2, 2009

GRAND HYATT IN DENVER, COLORADO.

I. INTRODUCTION

The aim of this paper is to illustrate how Colorado State House Bill 08-1161 and similar legislative efforts are seemingly no longer designed to protect human health and the environment but rather to stop industrial projects in their tracks. This paper will highlight the development of H.B. 08-1161 and provide an analysis regarding how H.B. 1161 once enacted by the Colorado Legislature created another regulatory hurdle for in situ uranium recovery based on the purported protection of ground water. Additional statutory requirements were seemingly not necessary in the State of Colorado given the existing laws and regulations already in place. In fact, although championed by the environmental movement, H.B. 1161 seems to defeat, rather than support, the quest for sustainable development by attempting to impose potentially unattainable requirements on in situ leach mining (ISL) in Colorado, thereby unnecessarily hampering implementation of a sustainable technology, while adding virtually nothing meaningful to existing environmental protections.

The fact is that in situ recovery is the most advanced, cleanest and safest uranium mining technique. Techniques for ISL have evolved to the point where it is a controllable, safe and environmentally benign method of mining which operates under strict operational and regulatory controls. World Nuclear Association, *In Situ Leach (ISL) Mining of Uranium*, available at <http://www.world-nuclear.org/info/inf27.html> (last visited on May 11, 2009). In the United States in situ leach mining is also seen as the most cost effective and environmentally acceptable method of mining. *Id.* There is little surface disturbance, no tailings or waste rock generated, and the process does not result in the emission of carbon dioxide. The implementation of in situ recovery mining should be supported and encouraged rather than over-regulated since it in fact supports sustainable development through the utilization of the best available technology in an environmentally safe and sound process.

II. SUSTAINABLE DEVELOPMENT IN THE MINING SECTOR AND IN SITU LEACH MINING OPERATIONS

Sustainable development can be defined as “development that meets our present needs without compromising the needs of future generations.” Environmental Protection Agency, *Pollution Prevention Sustainable Development*, available at <http://www.epa.gov/eftpages/pollsustainabledevelopment.html> (last visited on May 11, 2009). The field of sustainable development can be conceptually broken into three constituent parts: environmental sustainability, economic sustainability and sociopolitical sustainability. Sustainable development functions to integrate all three parts by finding common ground solutions but, unfortunately, economic and sociopolitical sustainability are seldom considered and certainly are placed a distant second to the goals of environmental activists.

The International Council on Mining and Metals (ICMM) identified ten principles which should be used to implement and measure performance with respect to sustainable development. International Council on Mining and Metals, *10 Principles*, available at <http://www.icmm.com/our-work/sustainable-development-framework/assurance> (last visited on May 11, 2009). These principles were based upon the Mining, Minerals and Sustainable Development project, a two-year project of research and consultation looking into the ways in

which the mining and minerals sector could contribute to the global transition to sustainable development. The ten principles are: (1) Implement and maintain ethical business practices and sound systems of corporate governance; (2) Integrate sustainable development considerations within the corporate decision-making process; (3) Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities; (4) Implement risk management strategies based on valid data and sound science; (5) Seek continual improvement of our health and safety performance; (6) Seek continual improvement of our environmental performance; (7) Contribute to conservation of biodiversity and integrated approaches to land use planning; (8) Facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products; (9) Contribute to the social, economic and institutional development of the communities in which we operate; and (10) Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders. *Id.* Mining companies utilizing ISL technology and safe development strategies should be given the opportunity to demonstrate compliance with these principles. Unfortunately, H.B. 1161 and its later enactment effectively pre-judged the technology and denied that opportunity.

In recent years the term “sustainable development” has focused only on environmental protection due in large part to the modern day “green movement,” and more on political correctness than sound science or technology. Patrick Moore, one of the founding members of Greenpeace, stated that recently Greenpeace has been adopting extreme agendas that abandon science and logic in favor of emotion and sensationalism. Greenspirit Strategies, *Environmental Movement Has Lost Its Way*, available at <http://greenspiritstrategies.blogspot.com/2005/10/environmental-movement-has-lost-its.html> (last visited on May 11, 2009). Some in the environmental movement have taken to “favoring political correctness over factual accuracy” ultimately leading to the introduction and implementation, at both the federal and state levels, of extreme environmental legislation directed solely at the mining industry. *Id.* The enactment of H.B. 1161 is an example of the phenomenon.

In Colorado, there are several environmental/political groups, as well as individuals, that have established and maintained websites devoted to illustrating the “extreme dangers” posed by mining operations, including ISL activities, without displaying an understanding of the fundamentals of the industry or a specific technology or project. These groups and individuals are well funded, enthusiastic and outspoken and have made it apparent that developing any mine in Colorado will be made extremely difficult, time consuming and expensive. When a Canadian junior mining company withdrew from a mining project in central Colorado, one of these environmental/political organizations that opposed the project was prompted to state that “mining companies learned that our community is a force to be reckoned with. We have the political, economic and social will to successfully oppose a proposed mine.” Red Lady Coalition, *Only six months young*, available at <http://www.redladycoalition.com/page.cfm?pageid=10826> (last visited on May 11, 2009).

Other organizations have focused primarily on in situ leach uranium mining operations in Colorado and have sought to create near hysteria with poor factual information about uranium mining. These organizations were very heavily involved in promoting H.B. 1161 through the sponsors of the Bill and unfortunately provided misleading information and evidence with regard

to the in situ uranium mining process. Many of the claims made by these organizations were unfounded and misguided, but it is clear that these same organizations and others will continue to attempt to influence Coloradoans and how Coloradoans ultimately perceive the mining industry.

III. HOUSE BILL 1161 WAS NOT NECESSARY

H.B. 1161 was formally captioned as follows: “Concerning an Increase in the Regulatory Authority of the Mined Land Reclamation Board Over Mining, and, in Connection Therewith, Ensuring the Protection of Ground Water and Public Health and Making an Appropriation.” The Bill was introduced in the House by Representatives Kefalas and Fischer from Larimer County on January 16, 2008 and was signed into law by Governor Ritter on May 20, 2008. Proponents of H.B. 1161 said the bill was necessary to provide greater protection for ground water in Colorado and to achieve some reasonable regulation of in situ leach mining, which they claimed was not well regulated in Colorado. Although the proponents of H.B. 1161 said they hoped to toughen state laws, admittedly making it more difficult for in situ leach uranium mining operations to move forward, and claimed the bill was not intended to stop in situ mining altogether, in actuality the Bill takes aim at in situ recovery and contains a bias against the use of the technology by seeking to make every effort to regulate it out of existence. H.B. 1161 set the bar extremely high in terms of bureaucratic hoops through which the industry must jump, making it as difficult as possible, time consuming and expensive to permit any mine using in situ recovery. Nevertheless, it is believed that the upcoming rulemaking by the Division of Reclamation, Mining and Safety (DRMS) to implement the legislation will help to clarify the applicable legal and regulatory requirements and the permitting framework and provide an interpretation of the new law that brings it back to reality.

The new law cannot accurately be called an environmental protection law because in situ recovery operations were already subject to extensive federal and state agency review, permit approvals and post-permitting oversight, as well as land use review at the local level. H.B. 1161 was not necessary to fill any gaps left open by the laws and regulations currently in place since in reality there were no gaps. H.B. 1161 duplicates portions of the extensive and stringent existing federal, state, and local programs that already govern in situ recovery operations in Colorado, and seeks to supplant certain existing requirements with new mechanisms that could be unreasonable and unworkable if not clarified, and in the end create a patchwork of regulations difficult to interpret with any certainty, and impossible to administer, let alone enforce.

Regulations at the Federal Level

At the federal level, Class I and Class III Underground Injection Control Permits (UIC) are required to be obtained by the U.S. Environmental Protection Agency (EPA) under the Safe Drinking Water Act (SDWA). (Colorado does not have an approved UIC program for Class I and II wells.) EPA established the UIC program to set minimum federal requirements for all injection wells that discharge hazardous and non-hazardous fluids above, into or below Underground Sources of Drinking Water (USDW). In order to obtain a Class I or Class III UIC permit, the ground water aquifers which are to be used for injection cannot be expected to serve as a source of drinking water and, in fact, must obtain an aquifer exemption from such use in order for a UIC permit to be granted. See Appendix A, *Permitting Process for In Situ Uranium Recovery in Colorado Under Existing Laws and Regulations*.

Regulations at the State Level

At the state level, a company proposing to use in situ recovery needs to apply for and receive from five different state agencies, up to ten separate permits or approvals relating to, among other things, ground water quality, ground water use, stormwater discharge, radioactive materials, hazardous waste and air quality. The various state agencies within the Colorado Department of Public Health and Environment and the Colorado Department of Natural Resources and the permits they are responsible for administering with respect to in situ leach mining are briefly highlighted below. *See Appendix A, Permitting Process for In Situ Uranium Recovery in Colorado Under Existing Laws and Regulations.*

Colorado Department of Public Health and Environment

i. Water Quality Control Division (WQCD)

The WQCD monitors and reports on the quality of state waters, preventing water pollution, protecting, restoring and enhancing the quality of surface and ground water, and assuring that safe drinking water is provided for all public water systems. This agency is responsible for issuing Ground Water Discharge Permits (if not fully covered by the DRMS under the Reclamation Permit), Surface Water Discharge Permits if there will be a discharge to surface water and Storm Water Permits which cover discharges of stormwater from, for instance, an industrial property. Applications for these permits require extensive review by the CDPHE and the permits impose strict standards on the quality of water leaving the site. Technical review is extensive and standards are strict. The WQCD is responsible for implementing and enforcing the regulations adopted by the Water Quality Control Commission (WQCC). The water quality classifications and standards the WQCC adopts are to protect beneficial uses of waters of the state. These include specific standards for radioactive materials, as well as site-specific water quality standards for many locations around the State.

ii. Hazardous Materials Waste Management Division (HMWMD)

The HMWMD is responsible for issuing Hazardous Waste Permits, Solid Waste Certificates of Designation and Radioactive Materials/Uranium Mill Licenses. The HMWMD is responsible for implementing standards and classifications for discharges, other than point source discharges to surface water, through its own regulatory programs after consultation with the WQCC and WQCD. The HMWMD has independent authority to establish concentration limits, including more stringent concentration limits, and points of compliance for hazardous constituents associated with the treatment, storage or disposal of hazardous wastes. The HMWMD regulates the management and clean-up activities for solid and hazardous wastes and underground storage tanks.

iii. Air Pollution Control Division (APCD)

The APCD is responsible for issuing Air Quality Permits with respect to a mining operation.

Colorado Department of Natural Resources

i. Division of Reclamation, Mining and Safety (DRMS)

The DRMS carries out the statutory requirements of the Mined Land Reclamation Act (MLRA). Colorado's MLRA, which is the law governing review of mining operations including in situ recovery at the state level, is one of the most protective in the country. It was tightened significantly in the early 1990s to ensure that environmental impacts from mines are reported immediately and addressed effectively. Changes included requiring an "Environmental Protection Plan" for all "Designated Mining Operations," requiring immediate reporting of failure or imminent failure of impoundments, embankments and slopes, and getting tougher on the financial assurances mine operators must post to guarantee reclamation of the mine site, as well as requiring better proof that any financial guarantor can pay the cost if the operator fails to complete the reclamation itself. Further, provisions were added to the statute authorizing the State to conduct emergency response actions and recover its costs for those actions from the owner or operator of an offending mine. So the Colorado reclamation system alone includes several layers of protection against so-called pollution from mines, with such reclamation standards striving to promote sustainable development. These policies ensure that waters are not degraded by mining closures and that lands disturbed by such operations are returned to safe and stable conditions to guarantee productive post-mining land use. Importantly, if the DRMS in evaluating and issuing a reclamation permit does not impose ground water protection provisions on a particular mine or recovery process that are considered strict enough, the CDPHE can separately impose additional, stricter requirements and is given an effective veto authority over the DRMS with regard to this aspect of the permitting process, further assuring the protection of ground water in Colorado.

ii. Colorado Division of Water Resources (DWR)

The DWR through its State Engineer is responsible for ground water administration and enforcement. Every new well in the state that diverts ground water must obtain a well permit.

County Land Use Requirements

In addition to the federal and state requirements, there are local requirements that must be satisfied before an in situ leach mining facility can begin operating. In most counties a Special Review Permit is required to be obtained. *See Appendix A, Permitting Process for In Situ Uranium Recovery in Colorado Under Existing Laws and Regulations.*

As illustrated above, long before H.B. 1161 came along in situ recovery in Colorado was overseen by a mature and well-thought out federal, state and local regulatory scheme that was designed and implemented to ensure environmental impacts were minimized and that human health was protected. Current federal, state and local programs ensure that proposals for in situ recovery are carefully thought out, vetted completely and revised as necessary (or, in some cases, denied) to protect the environment. Additionally, all uranium mining proposals are already

subject to the most extensive and comprehensive public review and comment processes at numerous stages.

IV. RULEMAKING PROCESS RELATED TO H.B. 1161

Now that H.B. 1161 has been enacted by the Colorado Legislature, the DRMS will be conducting a rulemaking process to implement the new law. A draft set of proposed regulations addressing this legislation will be prepared by the DRMS through a public process that will involve initial informal stakeholder meetings on the draft rulemaking. The first meeting is scheduled to take place on May 27, 2009 in Denver with other such meetings possibly in late spring or early summer of 2009. After the stakeholder meetings, the DRMS will present the Mined Land Reclamation Board (MLRB) with a set of proposed regulations and request the MLRB to issue a Formal Notice of Rulemaking. This notice will initiate the formal rulemaking process before the MLRB that will allow a formal public review process to be initiated.

After a Formal Notice of Rulemaking has been issued, the MLRB may appoint a pre-hearing conference officer who may issue pre-hearing orders, or if no pre-hearing officer is appointed, the DRMS may issue such orders. One of the pre-hearing orders will most likely require any person who wishes to participate as a party in the formal rulemaking hearing to sign up with the DRMS *by a date certain*. Other pre-hearing orders will most likely include a schedule for the submittal of written comments and briefs to the MLRB *by a date certain* and a schedule for the formal rulemaking hearing that will include provisions for the amount of time each party will have to make an oral presentation before the MLRB.

The MLRB will schedule and conduct a formal rulemaking hearing, notice of which will be posted on the DRMS's website. The MLRB may amend the proposed regulations upon consideration of written submittals and oral presentations. After the rulemaking hearing, the MLRB will deliberate on the proposed regulations and vote on whether or not to adopt them formally.

V. PROBLEMATIC PROVISIONS OF H.B. 1161

There are several provisions of the Act that may effectively deter, though not necessarily defeat, any in situ leach mining operation from going forward. Attempts made to amend various provisions of the introduced version of the Bill to make it more workable and practical were largely futile as the committees that considered the Bill in the Colorado Legislature rushed to judgment and failed to take the time necessary to consider carefully how the new legislation would impact the industry or even how it might dovetail with existing requirements. Unfortunately, a majority of the ambiguous and confusing provisions remained in the final enacted version of the legislation. Some of the provisions of concern are set forth below.

Permit Application Process

The "five mining operations" requirement. C.R.S. 34-32-112 (2)(j) now provides that any reclamation permit application must provide "for in situ leach mining operations, a description of at least five in situ leach mining operations that demonstrates the ability of the applicant to conduct the proposed mining operation without any leakage, vertical or lateral

migration, or excursion of any leaching solutions or ground-water-containing minerals, radionuclides, or other constituents mobilized, liberated, or introduced by the in situ leach mining process into any ground water outside the permitted in situ leach mining area.”

This requirement is not only very burdensome, but it will not generate relevant or meaningful information. In situ leach mining operations that took place in some other state, during some other time period and under some other statutory or regulatory system are not going to show Colorado regulators how a particular in situ mining operation will perform in Colorado.

Ground Water Restoration Provisions

Denial of permit. C.R.S. 34-32-115(5)(b) provides that “the Board or the Office shall deny a permit for in situ leach mining if the applicant fails to demonstrate by substantial evidence that it will reclaim all affected ground water for all water quality parameters that are specifically identified in the baseline site characterization, or in the statewide radioactive materials standards or Tables 1 through 4 of the basic standards for ground water as established by the Colorado Water Quality Control Commission, to either of the following: (I) pre-mining baseline water quality or better, as established by the baseline site characterization conducted pursuant to section 34-32-112.5(5); or (II) that quality which meets the statewide radioactive materials standards and the most stringent criteria set forth in Tables 1 through 4 of the basic standards for ground water as established by the Colorado Water Quality Control Commission.”

These ground water restoration standards may be difficult for any mining operation to achieve. The new law attempts to handle ground water quality restoration by including several confusing and conflicting standards. Particularly, the ability to restore ground water to pre-mining quality for all water quality parameters or better is extremely difficult for most if not all sites and is not scientifically meaningful. In situ recovery is a chemical process and affected water will not have the same exact chemistry after the process is used, though the water quality class or use may in fact be restored. The current regulatory system recognizes that restoration to exact pre-operational baseline conditions may not be practicable or feasible, owing to the geochemical changes in the production zone during operations, or site-specific conditions and economic costs.

Another problem with these provisions is that it is difficult to know with certainty what standard applies to a given application or restoration - either pre-mining baseline water quality; a higher standard that is “better” than baseline; statewide standards; use-based standards and so on.

Agricultural uses. C.R.S. 34-32-115(5)(c) states that “the Board or the Office may deny a permit for in situ leach mining if the existing or reasonably foreseeable potential future uses for any potentially affected ground water, whether classified or unclassified pursuant to Section 25-8-203, C.R.S., includes domestic or agricultural uses, and the Board determines the in situ leach mining will adversely affect the suitability of the ground water for such uses.”

Most, if not all, of the ground water in Colorado could conceivably or arguably be used for domestic or agricultural uses. Therefore, this ambiguous provision could be used to deny virtually all permit applications, which clearly should not have been intended.

Best available technology. C.R.S. 34-32-116(8)(b) provides that “in establishing, designing, and implementing a ground water reclamation plan, the mine operator shall use best available technology.”

This provision, requiring the operator to use “best available technology” fails to expressly give any consideration to cost. However, the concept of “best available technology” must require consideration of cost. The concept of “BAT” needs to be fleshed out to specify that the technology chosen needs to make economic, as well as practical, sense.

Uncertainty About Permit Approval/Uncertainty About Feasibility of Reclamation Provision

Scientific or technical uncertainty. C.R.S. 34-32-115(5)(a) provides that “the Board or Office may deny a permit for in situ leach mining operations based on scientific or technical uncertainty about the feasibility of reclamation and shall deny such a permit if the applicant fails to demonstrate that reclamation can and will be accomplished in compliance with this Article, including the protection of ground water and other environmental resources and human health.”

This provision purportedly adds a discretionary denial of a permit if the MLRB or Office has any uncertainty about the feasibility of reclamation. This provision is unnecessary and confusing since the MLRB already has the authority, and the responsibility, to deny a permit if the applicant fails to meet its burden with respect to meeting detailed, comprehensive reclamation standards. Since the applicant already has the burden of demonstrating to the complete satisfaction of the MLRB and Office that it can meet reclamation standards, there is no reason why uncertainty would remain at the time the MLRB considers granting the permit. Furthermore, the provision’s vague language would result in unpredictable and arbitrary permitting decisions. This provision is not only vague and ambiguous but would allow denial of any application for a permit based on no actual, identifiable or objective standards or criteria. The subjectivity of this provision ensures differing interpretations and inconsistent results.

“Blackball” Provisions

Responsibility for the actions of others. C.R.S. 34-32-115(5)(d)(I) states that “the Board or the Office may deny or revoke a permit for in situ leach mining if the applicant, an affiliate, officer, or director of the applicant, the operator, or the claim holder has demonstrated a pattern of willful violations of the environmental protection requirements of this Article, rules promulgated pursuant to this Article, a permit issued pursuant to this Article or an analogous law, rule, or permit issued by another state or the United States as disclosed in the application . . .”

This provision relates to a pattern of violations, but effectively makes the applicant responsible for actions of others with which it has no relationship, e.g., “an affiliate of a claim holder.”

More violations. C.R.S. 34-32-115(5)(d)(II) states that the Board or Office may deny or revoke a permit for in situ leach mining if “the applicant or any affiliate, officer, or director of the applicant has in the ten years prior to submission of the application violated the environmental protection requirements of this Article, rules promulgated pursuant to this

Article, a permit issued pursuant to this Article, or an analogous law, rule, or permit issued by another State or the United States as disclosed in the application...” In this case, the MLRB or office “may issue or reinstate a permit if the applicant submits proof that the violation...has been corrected or may conditionally issue or reinstate a permit if the violation is in the process of being corrected to the satisfaction of the Board or if the applicant submits proof that the applicant has filed an is presently pursuing a direct administrative or judicial appeal to contest the validity of the alleged violation.”

This provision covers even single-instance violations but grants too much discretion to the Board or Office.

Taken together, the requirements in these sections of the law are overly broad and punitive provisions and likely could unintentionally prevent a good company from conducting a clean mining operation because of isolated or administrative-type violations that may not even be related to that company. For mining companies, acquiring other companies is common and is often required to operate most productively and efficiently. This provision effectively says that if a good mining company buys another mining company that has had problems with its operations, and has a plan to improve the purchased company’s operations, the good company may not get a permit in Colorado.

Additional Problem Provisions Remaining in H.B. 1161

Section 10, Applicability, provides that “this act shall apply to mining applications currently filed on or after the effective date of this act and to mining operations currently permitted or permitted on or after the effective date of this act.”

This section means that existing mining operations that are fully permitted and fully compliant with all laws and regulations, and that are in fact in production, could be required to go back and try to satisfy all the new requirements added by this Bill. Instead of being prospective in nature this bill not only places an extreme cost burden on existing mining operations but is prejudicial to operators who are complying with all existing laws, rules, and the terms of their permit.

VI. POSSIBLE PREEMPTION AND TAKINGS ISSUES REGARDING THE ACT (H.B. 1161)

Although the final regulations to be drafted by the DRMS following the rulemaking process may clarify some of the ambiguity and confusion in and associated with the Act, subsequent litigation under this new legislation may ultimately be necessary to better define the scope of the legislation. One possible claim that could potentially be brought successfully is a preemption claim. Certain requirements in the Act appear to be preempted by or in conflict with the full purposes and objectives of the federal Underground Injection Control (UIC) program which controls in Colorado. The Act’s purpose is to deter any and all mining operations through its stringent ground water restoration provisions, whereas the federal UIC program and the purpose for creating the aquifer exemption process is to allow for the production of minerals by allowing for disposal of wastes into formations determined clearly not to be future sources of drinking water; therefore, the Act arguably frustrates the operation of federal law. Additionally, depending upon the Nuclear Regulatory Commission’s new rules for ground water protection at in situ leach uranium recovery facilities, there is the possibility that the HMWMD of the

CDPHE will have primary jurisdiction over the regulation of ground water at these facilities. Finally, a takings claim may eventually have to be considered if a strong argument can be made that the Act and its regulations do not advance a legitimate governmental interest.

VII. CONCLUSION

For mining companies to contribute to sustainable development the necessity for mineral development and the need for companies to make a reasonable profit must be balanced with the need for environmental awareness and protection and internalization of costs and responsibility. Achieving progress toward sustainability thus implies maintaining, and preferably improving, both human and ecosystem well-being, not one at the expense of the other. International Institute for Sustainable Development, *Assessing Sustainable Development*, available at <http://www.iisd.org/pdf/bellagio.pdf> (last visited May 11, 2009). The pressures exerted on politicians to make mining more “environmentally friendly” cannot have as its end game the elimination of needed industries and jobs that can be made compatible with rational environmental requirements. They must guard against the imposition of unnecessary requirements on mining activities that will create more of an unreasonable burden that may not be surmounted. Ultimately, the continued implementation of legislation which purports to protect the environment must in fact also, not merely achieve political gains.