

**SOUTH DAKOTA BOARD OF MINERALS AND ENVIRONMENT
RESOLUTION ADOPTING A STATEMENT OF REASONS
PREPARED PURSUANT TO SDCL 1-26-7.1**

Whereas, Nancy Hilding, personally and on behalf of the Prairie Hills Audubon Society (PETITIONER), submitted a written request by letter dated January 17, 2007 for: “. . . a statement of reasons, if you approve new mining rules for governing in situ uranium leach mining” pursuant to SDCL 1-26-7.1; and

Whereas, all members of the South Dakota Board of Minerals and Environment (BOARD) have been furnished a copy of PETITIONER’S written request; and

Whereas, with respect to the meeting of the BOARD held today, February 15, 2007, that public notice of the meeting was provided pursuant to SDCL 1-25-1.1; and

Whereas, the BOARD has reviewed and carefully considered:

1. PETITIONER’S written request,
2. Requirements and procedures in SDCL 1-26-7.1, and
3. Comments, data, opinions, arguments, and reasons submitted by members of the public, BOARD, and staff of the DEPARTMENT relative to ARSD Chapter 74:29:11 and revisions to §74:29:01:01 adopted by the BOARD at its January 18, 2007 BOARD meeting; and

Whereas, the BOARD has reviewed and carefully considered the attached STATEMENT OF REASONS.

Now, therefore, be it RESOLVED that the BOARD by roll call vote adopts the attached STATEMENT OF REASONS in its entirety and the attached STATEMENT OF REASONS constitutes the BOARD’S “written concise statement of the principal reasons for and against the rule’s adoption, incorporating therein its reasons for overruling the considerations urged against the rule’s adoption or rejection” as required by SDCL 1-26-7.1.

Be it further RESOLVED that PETITIONER’S written request, the BOARD’S “STATEMENT OF REASONS”, and this “RESOLUTION” be made a part of the minutes of this BOARD meeting and that in compliance with SDCL 1-26-7.1 the DEPARTMENT is authorized and directed to serve by mail a copy of the PETITIONER’S written request, BOARD’S “STATEMENT OF REASONS”, and “RESOLUTION” on:

1. All members of the Interim Rules Review Committee,
2. Director of the Legislative Research Council, and
3. PETITIONER.

For the Board of Minerals and Environment:

_____/S/_____
Richard C Sweetman, Chairman

_____/2/15/07_____
Date

**STATEMENT OF REASONS
FOR
ADOPTION OR REJECTION OF RULES
PURSUANT TO SDCL 1-26-7.1**

Nancy Hilding, personally and on behalf of the Prairie Hills Audubon Society, submitted a written request to the Board of Minerals and Environment by letter dated January 17, 2007 for: “. . . a statement of reasons, if you approve new mining rules for governing in situ uranium leach mining” pursuant to SDCL 1-26-7.1 (EXHIBIT 1). This document was prepared in response to the request.

BACKGROUND

Increasing worldwide demand for uranium and a corresponding increase in the price of uranium has renewed interest in South Dakota’s uranium resources, especially those that can be mined by in situ leach (ISL) mining methods. To prepare for the possibility of ISL mining operations moving into the state, the 2006 Legislature passed Senate Bill 62. Senate Bill 62 was designed to fill gaps in the state laws that govern uranium exploration and mining. This legislation authorized the Board of Minerals and Environment to promulgate rules for the construction, operation, monitoring, and closure of uranium and other ISL mines under the South Dakota Mined Land Reclamation Act (SDCL 45-6B).

While the rules adopted by the BOARD address all types of potential ISL mining, the immediate concern in South Dakota is ISL mining for uranium. ISL mining involves injecting solutions into an ore body through wells to leach the uranium out of the rock, then collecting the fluid through recovery wells and processing it on the surface to remove the uranium. In South Dakota the injection fluid would probably be native groundwater fortified with oxygen and carbon dioxide. Since the ore is left in place in the ground, there is little surface disturbance and no tailings or waste rock is generated as with a conventional mine.

During 2006 the DEPARTMENT developed a draft set of ISL mining rules. The DEPARTMENT made the draft rules available to the public for comment and provided public notice of their availability in November 2006. The public notice was published in seven newspapers across the state and mailed to 186 individuals and organizations, including Nancy Hilding, who had previously requested they be informed of pending actions of the Board. The DEPARTMENT made the draft rules available on its web site and mailed copies of the draft rules to individuals who requested them. No comments on the draft rules were received during this approximately 45-day review period.

The DEPARTMENT prepared and published a notice of hearing in late December 2006 relative to the proposed rules which again advised members of the public of the BOARD rule proposal, time and place of public hearing, and how comments, data, opinions, and arguments could be submitted to the BOARD relative to the proposed rules.

The proposed rules were served on the Department Secretary, the Legislative Research Council (LRC) and the Bureau of Finance and Management as required. LRC approved the rules for

legality and proposed style and form changes, which were made and adopted in the final set of rules.

The BOARD conducted the public hearing on the proposed rules on January 18, 2007 at which time the BOARD received considerable written and oral comments on the proposed rules. Many of the written comments had been received by the DEPARTMENT before the public hearing and were then provided to the BOARD.

During the public hearing the DEPARTMENT also offered the BOARD recommended modifications to the rules based on comments received from the public and style and form changes recommended by LRC.

During the public hearing the BOARD considered the information contained in written and oral comments on the proposed ISL mining rules and possible modifications. The BOARD then amended the draft rules and adopted the rules as amended.

Attached is a copy of the minutes of the public hearing conducted on January 18, 2007 (EXHIBIT 2). Starting on page 9 of the minutes is a summary of the oral and written comments received from the public which contain the principal reasons for and against the adoption of the proposed rules submitted by the public.

As part of the rule-making process the DEPARTMENT will present the rules adopted by the BOARD to the Interim Rules Review Committee (IRRC).

RESPONSE

PRINCIPAL REASONS

The principal reasons for the adoption of the ISL mining rules include:

Filling Regulatory Gaps

Prior to the adoption of these rules, ISL mining was already authorized under the existing state mining laws enacted in 1982 (SDCL 45-6B). However, there were no laws or rules that specifically address ISL mines. Senate Bill 62 and the new rules are designed to fill that gap by identifying the specific requirements an applicant must meet to obtain a permit for and to operate an ISL mine. The rules address in situ leach facility design and construction, injection and recovery well construction, mine operation, monitoring and reporting requirements, ground water remediation, waste disposal, aquifer restoration, well plugging, surface reclamation and post closure monitoring and maintenance.

Protection of Ground Water

Protection of ground water at an ISL mine is a primary concern. To this end, the rules include provisions for controlling the solutions injected into the ore zones to remove the target mineral, containing solutions within the ore zones to ensure no migration outside of production zones, monitoring injected solutions and ground water, mitigating ground water if solutions migrate out

of production zones, well construction and plugging and containing solutions and chemicals held in surface facilities.

Restoration of Ground Water

To further ensure ground water protection, once mining is complete within a portion of the ore zone, the rules require the operator to return the affected ground water back to baseline conditions. If this is not possible for specific chemical constituents, South Dakota ground water or secondary drinking water standards may be used.

Surface Reclamation

SDCL 45-6B-3 requires that upon depletion of the mineral resources the affected land is usable and productive to the extent possible for agricultural or recreational pursuits or future resource development. The rules include requirements for removal of buildings, roads and other surface facilities; re-vegetation; radiation cleanup standards for soils and waste disposal.

Postclosure Care

To ensure that ground water quality and the beneficial use of the reclaimed land is maintained, the adopted rules include postclosure provisions for long term care and maintenance of a reclaimed ISL mining site. The adopted rules require postclosure water quality monitoring and mitigation of mine impacted ground water.

OTHER CONSIDERATIONS

As indicated in the minutes of the public hearing (EXHIBIT 2), members of the public presented to the BOARD for its review and consideration a significant amount of oral and written comments and arguments in favor of and in opposition to the proposed ISL mining rules.

When requested to do so, SDCL 1-26-7.1 requires the BOARD to issue a written concise statement of the principal reasons for and against the adoption of rules. While the BOARD cannot speak for members of the public who submitted comments in the public hearing, the BOARD believes the minutes of the hearing contain the principal reasons for and against the adoption of the proposed rules. Rather than further summarize the information provided at the public hearing in that regard, the BOARD has created the following list of main considerations urged by the members of public concerning adoption of the ISL mining rules.

A. Environmental Impact Statement

Comments were made that there was no requirement in the rules for a State environmental impact statement (EIS). The rules do not include provisions for a State EIS for two reasons. First, existing state law (Chapter 34A-9) already addresses requirements for a State EIS. Second, a mine permit issued under existing state law already requires a detailed analysis of the potential impacts a mining operation may pose to the environment and natural resources that would only be duplicated by an EIS. It should be noted that ISL mines are also regulated by the federal Nuclear Regulatory Commission (NRC) and Environmental Protection Agency (EPA) and are subject to National Environmental Policy Act procedures that may involve the preparation of a federal environmental assessment or EIS.

B. Technical Revisions

A few commenters were critical of the rules allowing use of technical revisions to make changes to an ISL mine permit, stating that major changes can be made out of the view of the public, without public notice, and without the public's ability to contest. One commenter commended the use of technical revisions because of the flexibility they provide. Technical revisions are already allowed under existing rule § 74:29:03:16. Under the rule, the BOARD can delegate the authority to the DEPARTMENT to approve specific types of technical revisions through permit conditions. Technical revisions allow for minor modifications of a mine permit without the requirement of obtaining a permit amendment, which involves a lengthy administrative process. In accordance with § 74:29:03:16, technical revisions can be contested, and the DEPARTMENT is required to maintain a list of technical revisions that is readily available for public inspection. A copy of the list is provided to anyone upon request. The proposed rule on technical revisions was adopted by the BOARD as recommended.

C. Baseline and Operational Water Quality Monitoring Requirements

Some commenters stated that the baseline and operational water quality monitoring requirements were excessive and expensive. Other commenters asked that the baseline ground water monitoring period be increased from six months to a year, and monitoring requirements not be reduced. The DEPARTMENT reviewed the monitoring requirements and recommended several changes to the rules that would allow for adequate baseline and operational monitoring. Changes were made to §74:29:11:07, Establishment of baseline water quality in new mining areas, §74:29:11:30, Production area operational monitoring requirements, and §74:29:11:47, Restoration sampling procedure, which were adopted by the BOARD.

D. Ground Water Restoration

Several comments were received regarding ground water restoration. The DEPARTMENT reviewed and recommended changes to §74:29:11:05, Determination of ground water restoration demonstration, §74:29:11:06, Ground water restoration table , and §74:29:11:50, Restoration values not achieved. The changes were made to better define the requirements for restoration values, with the goal of having ground water restored to baseline conditions. In the event that baseline conditions can not be met for a specific chemical constituent, the rules allow for establishment of alternative restoration values based on South Dakota ground water standards, EPA health advisory standards, EPA secondary drinking water standards, or an appropriate statistical method for any parameter not listed in the standards. These modifications were adopted by the BOARD.

E. Aquifer Exemption

Several commenters objected to §74:29:11:09, Designation of exempted aquifers, opposing the idea that aquifers that meet the criteria of an underground source of drinking water could be exempted to allow ISL mining. The basis for the rule on aquifer exemptions is in the federal EPA Underground Injection Control (UIC) Class III Well rules, which do allow aquifer exemptions for ISL mining. This rule will be required if the state requests delegation of the UIC Class III Well program from EPA, so the BOARD adopted it as recommended.

F. Reclamation Bonding

Some commenters mentioned that the rules do not address reclamation bonding requirements. Reclamation and postclosure bonding requirements are already covered under the current mining

law, SDCL 45-6B, and therefore no rules are required. These bonds are calculated based on engineering estimates of what it would actually cost the State to hire a third party to carry out the reclamation and postclosure plans if for some reason the company fails to.

G. Public Notification

Commenters repeatedly asked for the rules to include public notification of spills, technical revisions, wells lacking mechanical integrity, corrective actions for improperly sealed wells, radioactive emissions from process facilities, uncontrolled movement of mining solutions into ground water outside of production zones, and postclosure plans. Based on these concerns, the BOARD adopted rule §74:29:11:60, Public notice for in situ leach mines, that requires the DEPARTMENT to provide on its website quarterly updates on the operational status, compliance status, technical revisions submitted or approved, and other pertinent information regarding an active ISL mine permit. It should be noted the permit files the DEPARTMENT maintains are already open to the public with the exception of a very limited amount of confidential information pertaining to geology and information that may affect the competitive position of the permittee as allowed by SDCL 45-6B-19.

H. Public Inspection of Records

There were some comments regarding the public's right to inspect records, including well logs. While the bulk of the information related to an in situ leach mine permit is available to the public, existing state law (SDCL 45-6B-19) allows geologic information such as well logs to be kept confidential. Due to this existing state law, no changes were made to the rules.

I. Double Wall Pipeline Requirement

Some commenters said the double wall pipeline requirements in draft rule §74:29:11:24, Pipeline design and construction requirements, were excessive and expensive. The double wall requirement was included in the draft rules to minimize the potential for pipeline spills. The State regulatory agency in Wyoming identified pipeline spills as one of the major issues it has had with ISL mines. The DEPARTMENT reviewed the double wall requirements, and based on its review of the comments and its experience with pipeline construction at gold mines in the Black Hills, it determined that the double wall requirement was excessive. The double wall requirement in the rule was replaced with a requirement for the installation of early detection and pipeline shut down capability based on pressure loss, which was adopted by the BOARD.

J. Tribal Consultation

One commenter was concerned that these rules only cover non-tribal lands and tribes should be notified of excursions of mining solutions into ground water outside production zones because it could impact ground water on tribal lands. As noted above, the BOARD adopted a rule requiring the DEPARTMENT to post quarterly reports on its web site, which will include information on ground water monitoring and compliance status. Considering the distances involved and ground water travel time, quarterly updates should be adequate notification, and special notification for any specific party in rule is not needed.

K. Postclosure Care and Maintenance

Some commenters stated that a lengthy postclosure period for ISL mines is not needed once ground water is restored. Existing state law (SDCL 45-6B-91) already requires a postclosure

period of 30 years. However, the 30-year period can be shortened by the BOARD if a reduced postclosure period ensures compliance with applicable performance standards. Therefore, the BOARD adopted the postclosure sections of the rule as recommended, with the exception of one style and form change.

L. Request to Continue Hearing

During the hearing, the DEPARTMENT provided the BOARD with all written comments it had received on the proposed rules prior to the hearing. The DEPARTMENT also provided its own recommended modifications to the proposed rules that were based on comments received from the public and style and form changes recommended by LRC. The Board decided to use the DEPARTMENT'S recommended modifications, which were incorporated into a set of the publicly noticed proposed rules, as the starting point to begin the hearing. Several commenters argued that the DEPARTMENT'S proposed modifications constituted a whole new set of proposed rules and therefore the hearing should be continued to allow the public to review them. The purpose of incorporating the DEPARTMENT'S recommended modifications into a set of the proposed rules rather than providing its own separate written recommendation as other parties to the hearing did, was to expedite what was anticipated to be a lengthy hearing.

M. Duplication of Federal Requirements

Several commenters, including the Nuclear Regulatory Commission (NRC), noted that some of the rules duplicate federal requirements for uranium byproduct material, radiation standards, underground injection control (UIC), and aquifer exemptions. South Dakota has not been delegated the authority to carry out federal UIC requirements for Class III wells by the Environmental Protection Agency (EPA), and is not an agreement state with the NRC. NRC asserted that the State cannot enforce rules in areas that are reserved exclusively to the NRC or federal government. However, the BOARD adopted the rules covering these subject areas for two reasons. First, if the state decides to pursue delegation of the UIC Class III Well program from EPA, it must already have rules in place equivalent to the federal rules. Second, the state has a vested interest in protecting its natural resources and the health and safety of its people and should have a say in how ISL mines conduct their operations.

N. Water Management Board Involvement

One commenter said the Water Management Board should be involved in this rule making process because ISL mining is essentially a water management issue. However, the 2006 Legislature clearly gave the Board of Minerals and Environment the authority to promulgate rules for ISL mining by passing Senate Bill 62. In addition, ISL mines will need to obtain a water right permit from the Water Management Board which will involve public notice and hearing. To issue a water right, the board has to consider whether water is available, if other rights will be affected, if the water will be used for a beneficial use and if it is in the public interest.

In summary, the BOARD rendered its decisions based on the evidence presented and is of the belief that the rules address appropriate environmental regulation of ISL mining operations in South Dakota. The BOARD deems the rules to be reasonable and necessary as a proper and legal exercise of its authority granted by the South Dakota Legislature.