



WYOMING

Land Quality Division

Noncoal Chapters 8, 9 and 10 Rule Package

EQC Docket # 12 – 4101

Final Rule Package



Certification Page Regular and Emergency Rules

1. General Information

| | | | |
|--|--|-----------------------------|--------------------------|
| a. Agency/Board Name <i>See attached list for references</i> | | | |
| b. Agency/Board Address | | c. Agency/Board City | d. Agency/Board Zip Code |
| e. Name of Contact Person | | f. Contact Telephone Number | |
| g. Contact Email Address | | h. Adoption Date: | |
| i. Program(s) <i>See attached list for references</i> | | | |

2. Rule Type and Information

| | | |
|--|--|--|
| a. These rules are: | <input type="checkbox"/> Emergency Rules <i>(After completing all of Section 2, proceed to Section 5 below)</i> | <input type="checkbox"/> Regular Rules |
| b. Choose all that apply: | <input type="checkbox"/> New Rules* <input type="checkbox"/> Amended Rules <input type="checkbox"/> Repealed Rules | |
| * "New" rules means the first set of regular rules to be promulgated by the Agency after the Legislature adopted a new statutory provision or significantly amended an existing statute. | | |
| If "New," provide the Enrolled Act number and year enacted: | | |
| c. Provide the Chapter Number, and Short Title of Each Chapter being Created/Amended/Repealed <i>(if more than 5 chapters are being created/amended/repealed, please use the Additional Rule Information form and attach it to this certification)</i> | | |
| Chapter Number: | Short Title: | |
| d. <input type="checkbox"/> The Statement of Reasons is attached to this certification. | | |
| e. If applicable, describe the emergency which requires promulgation of these rules without providing notice or an opportunity for a public hearing: | | |

3. State Government Notice of Intended Rulemaking

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|---|
| a. Date on which the Notice of Intent containing all of the information required by W.S. 16-3-103(a) was filed with the Secretary of State: |
| b. Date on which the Notice of Intent and proposed rules in strike and underscore format were provided to the Legislative Service Office: |
| c. Date on which the Notice of Intent and proposed rules in strike and underscore format were provided to the Attorney General: |

4. Public Notice of Intended Rulemaking

a. Notice was mailed 45 days in advance to all persons who made a timely request for advance notice. Yes No N/A

b. A public hearing was held on the proposed rules. Yes No

| | | | | |
|-----------|-------|-------|-------|-----------|
| If "Yes:" | Date: | Time: | City: | Location: |
|-----------|-------|-------|-------|-----------|

5. Final Filing of Rules

a. Date on which the Certification Page with original signatures and final rules were sent to the **Attorney General's Office** for the Governor's signature:

b. Date on which final rules were sent to the **Legislative Service Office**:

c. Date on which a PDF of the final rules was electronically sent to the **Secretary of State**:

6. Agency/Board Certification

The undersigned certifies that the foregoing information is correct.

| | |
|---|--|
| <i>Signature of Authorized Individual</i> | |
| <i>Printed Name of Signatory</i> | |
| <i>Signatory Title</i> | |
| <i>Date of Signature</i> | |

7. Governor's Certification

I have reviewed these rules and determined that they:

1. Are within the scope of the statutory authority delegated to the adopting agency;
2. Appear to be within the scope of the legislative purpose of the statutory authority; and, if emergency rules,
3. Are necessary and that I concur in the finding that they are an emergency.

Therefore, I approve the same.

| | |
|-----------------------------|--|
| <i>Governor's Signature</i> | |
| <i>Date of Signature</i> | |

Distribution List:

Attorney General

1. Statement of Reasons;
2. Original Certification Page;
3. Summary of Comments (regular rules);
4. Hard copy of rules: clean and strike/underscore; and
5. Memo to Governor documenting emergency (emergency rules).

LSO

1. Statement of Reasons;
2. Copy of Certification Page;
3. Summary of Comments (regular rules);
4. Hard copy of rules: clean and strike/underscore;
5. Electronic copy of rules: clean and strike/underscore; and
6. Memo to Governor documenting emergency (emergency rules).

SOS

1. PDF of clean copy of rules; and
2. Hard copy of Certification Page as delivered by the AG.

BEFORE THE
ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

JULY 13, 2012



IN THE MATTER OF THE)
PROPOSED REVISION OF)
LAND QUALITY)
DIVISION RULES RELATED)
TO THE REGULATION OF)
NONCOAL MINING)

STATEMENT OF PRINCIPAL
REASONS (SOPR) FOR ADOPTION
DOCKET #: 12-4101

Noncoal Rules and Regulations, Chapter 8, 9 and 10

Exploration by Drilling, Small Mines and Limited Mining Operations

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Introduction to Rule Package

Chapter 8, Exploration by Drilling

Chapter 8 was promulgated in 1979 and the content has remained unchanged since that time. Chapter 8 contains regulations on exploratory drilling, and provides requirements for plugging and abandonment (sealing) of drill holes after obtaining exploratory data. One of the main areas that these new rules seek to address is drill hole plugging and sealing requirements. Chapter 8 does not conform to current best management practices and standards. It allows the use of drilling mud to seal drill holes and does not require plugging to the surface. On April 5, 2010 the Wyoming State Engineers Office (SEO) adopted revised Ground Water Division Part III regulations (Water Well Minimum

Construction Standards), which included specifications for well plugging and abandonment. These changes brought the SEO's Rules and Regulations into conformance with accepted practices as set forth by the American Society for Testing and Materials (ASTM), the American Water Works Association (AWWA), and the WDEQ-WQD Chapter 11, Part G, Well Construction Standards, among others. These standards do not allow the use of drilling mud as an acceptable sealant. The SEO's list of approved grout materials and methods has been copied verbatim in these proposed rules.

Another issue that the proposed revisions rules seek to correct is that the current LQD rules do not require plugging the entire hole. The DEQ/WQD and SEO rules make no distinction between an exploration test well (e.g., an exploration hole) and a constructed water well in terms of plugging and sealing requirements. The DEQ/WQD and SEO both require that the hole be plugged or sealed by filling the entire hole from the bottom to the ground surface to preclude the well, borehole, or drill hole from acting as a vertical conduit and to prevent contamination of ground water.

LQD Noncoal Chapter 8 does not currently require the submittal of a drilling notification prior to conducting exploration drilling. The LQD has been utilizing the drilling notification process and forms to authorize exploration drilling since 1978. These revised rules codify that requirement.

A provision has been added from the statute [W.S. § 35-11-404(h)] requiring that drill holes be capped immediately after the hole is probed. Another provision has been added to require that drill holes be temporarily marked with an identification number to facilitate inspection by WDEQ-LQD staff.

Surface reclamation requirements have been split out as a separate section from the plugging and abandonment requirements for the sake of clarity. Some minor additions have been made to address the disposal of drilling wastes and contaminated materials and reclamation of access routes.

Chapter 8 currently states that a bond in the amount of \$10,000 will be posted for each exploration area. This amount is generally insufficient to cover current abandonment and reclamation costs for medium to large scale exploration programs. Therefore, the specific value of the bond has been deleted from the proposed rules to allow for establishing bond amounts to cover actual costs. The types of allowable bonding instruments have also been specified. Other proposed changes include a provision that the bond may be reduced following proper drill hole abandonment.

A provision has been added to the section on reporting of abandoned drill holes to specify that the reports will be held confidential for a five year period after bond is released. This change was made to conform to statutory changes that were made in 2007.

Chapter 8 currently contains an exception that allows drill holes on permitted mines to be left unplugged. This provision has historically been interpreted as applying only to

surface mines where the drill holes will be mined through within a short time frame. Unplugged holes are certainly not desirable in proximity to underground mines or in situ mines. Appropriate clarifications have been added in the proposed rule.

Currently Chapter 8 contains no specific provisions for installation or plugging of wells. The LQD has historically authorized wells, typically monitoring wells installed to gather baseline information in support of a mine permit application, under Drilling Notifications. However, under this approach there are no standards regarding well completion, bonding or plugging and sealing. The intent of the proposed revisions is to provide this regulatory framework for installation of baseline monitor wells.

The proposed Chapter 8 rules were provided to the Wyoming Mining Association and representatives of the uranium industry to solicit their input on the rules. Meetings were held with LQD staff and numerous industry representatives on January 18th and February 9th specifically to review and discuss Chapter 8. The proposed rules were thoroughly vetted and have been revised to reflect numerous changes and clarifications that were recommended by the group.

In summary, the purpose of this Rules package is to update Chapter 8 to meets today's best management practices related to plugging and sealing exploration drill holes, to be consistent with other State Regulatory agencies, to clarify bonding procedures and to codify provisions for authorizing the construction of baseline ground water monitoring and test wells.

Chapter 9, Small Mine Operations

Chapter 9 was promulgated in 1978 and the content has remained unchanged since that time. Chapter 9 is proposed for revision mainly to clarify and specify all of the permit application requirements for small mine operations and to make the rules more readable. The chapter as currently written contains numerous citations to the Environmental Quality Act to indicate what is required and what is not required for small mine permit application. The current Chapter 9 is also poorly organized, incomplete and vague in many areas. To make the chapter more readable these statutory citations have been replaced with specific requirements contained in the statute and from Chapter 2, as appropriate. This eliminates the need to continually flip back and forth between regulation and statute to determine what is required for a small mine permit application.

Additional clarifications have been provided to define the scope of this chapter and to define the various information requirements to conform to LQD's long-standing protocols for organizing permit application materials. The revised chapter is intended to be clear and comprehensive in spelling out the information required for a small mine permit application.

Chapter 10, Limited Mine Operations

The major proposed changes to Chapter 10 are intended to clarify the proximity limitations on Limited Mine Operations or LMO's (aka ten acre exemptions) that have historically been applied through policy. Establishment of multiple LMO's in nearby areas circumvents the statutory requirements for environmental protections achieved with a mining permit. Therefore, it was necessary for LQD to establish reasonable limits to the number of LMO's an operator may have in near proximity to each other. LQD implemented a policy stating that an operator may not establish an LMO within six miles of another LMO held by the same operator and extracting the same material. This policy has been in place for years but has not been codified. The proposed rule codifies this policy.

The revised rule also establishes the level of reclamation required for an LMO before another may be approved within the six-mile limit. Once an LMO is reclaimed to final seeding, an operator may obtain a new LMO within six miles of the reclaimed one. This has not been specified before, and requirements in the past have been that the reclaimed vegetation be established and the bond released before a LMO could be approved. Allowing operators to open a new LMO as soon as final seeding is completed encourages prompt reclamation and benefits the operator by eliminating the uncertainty of when a new pit may be opened.

The other proposed change is to eliminate the ability of "contractors" to operate within a LMO that is held by another operator. This provision was added to Chapter 10 in 2000, but has since been found to be confusing and unworkable in practice. In addition, it has been noted that the statute [W.S. 35-11-401(e)(vi)] only speaks of an "operator" and makes no provision for "contractors". LQD has therefore determined that this provision should be eliminated.

Summary of Proposed Amendments

Chapter 8 Proposed Changes

Section 1 was revised to codify the requirement that drilling notifications must be submitted prior to conducting exploration by drilling outside of a permitted mine. It is also clarified that the requirements for plugging and abandonment apply within a permitted mine. Also, this section references section 7 which authorizes construction of monitor wells outside of permitted mines.

Section 2, was substantially revised to cover drill hole abandonment requirements. The intent of the revision is to bring this chapter up to date, reflect industry standards as described in ASTM International D-5299, and generally eliminate conflicts between DEQ/LQD and DEQ/WQD and SEO Rules and Regulations. To accomplish this Section 2 was modified to eliminate any reference to the use of drilling mud as an acceptable sealant material and to require the entire drill hole be completely filled from bottom to ground surface. Acceptable grout or sealant materials are defined consistent with current SEO rules.

Section 3, now covering surface reclamation requirements, was split out as a separate section for clarity.

Section 4, now covering bond requirements, was rewritten to eliminate the flat \$10,000 bond requirement, which is insufficient for most exploration projects. Provisions were also added to provide for bond reductions after drill hole abandonment has been completed and for bond release following successful revegetation.

Section 5, now covering termination and report of operations, was revised to include the option of requiring additional reclamation of a hole(s) rather than just bond release or forfeiture. A confidentiality provision was also added to be consistent with W.S. §35-11-404(e).

Section 6, Exceptions (previously covered in section 5), has been revised to clarify that drill hole abandonment and reclamation requirements do not apply to development drilling in advance of an open pit mine. The exclusion clause regarding oil and gas exploration remains in force.

Section 7 was added to provide a regulatory framework for LQD to authorize the installation of baseline ground water monitoring and testing wells, outside of a permitted mine. Construction standards relate back to those currently approved under Chapter 11 and plugging and sealing relates back to the proposed rewrite of Sections as described above.

Chapter 9 Proposed Changes

Chapter 9 has been largely rewritten with the intent of clarifying and spelling out all of the permit application requirements for small mine operations. Section 1 clarifies the

applicability and scope of the chapter. Sections 2-5 follow the historical format for mine permit application, i.e. adjudication information, environmental baseline data, mine plan and reclamation plan. Section 6 specifies the standards and methods for evaluating reclamation success. Section 7 clarifies the information and process required to convert a small mine permit to a regular mine permit.

Chapter 10 Proposed Changes

Section 6 was revised to indicate that transfers must meet the limitations on operations that are included in Section 8 and requires operators to have a Form 10 and bond in place. Section 8 was revised to incorporate policy regarding “nearby” operations to include a specific spatial limitation, i.e. the six mile rule, and thereby create greater consistency in the implementation of this section. The confusing provision allowing for “contractors” to operate within an existing LMO has been eliminated.

Summary of Changes to Advisory Board Draft SOPR

Chapter 8 Changes to Draft SOPR

1. Section 1(b) and 1(c) – These two sections were combined to form Section 1(b). No substantive changes were made to the language as presented to the Advisory Board. (Pages 10-13, 3/26/12 Advisory Board Minutes)
2. Sealant material – The use of the term “sealant materials” was discussed in relationship to the use of different terms such as “grout”. Advisory Board consensus concluded that “sealant materials” would be used as a general term and other terms would be used in more specific contexts. The LQD reviewed Chapter 8 and revised the terms as the context of the use of the terms dictated throughout the chapter. (Pages 50-54, 3/26/12 Advisory Board Minutes)
3. Sections 3(d) and 3(e) were revised to include an additional reference to Chapter 3. The two sections referred to performance standards for topsoil and subsoil replacement and revegetation standards and during the Advisory Board hearing it was concluded that these two subsections should also both refer to Chapter 3, Section 2(i) to add clarity. (Pages 35-39, 3/26/12 Advisory Board Minutes)

Chapter 9 Changes to Draft SOPR

1. Grammatical corrections were made to Section 2(a)(xiv) and the term “operator” was replaced with “applicant” to better fit the context of the section. (Pages 1-10, 3/26/12 Advisory Board Minutes)
2. Wildlife Consultations – Chapter 9, Section 3(a)(vi) was revised to reflect the Advisory Board’s discussion about wildlife consultations. Language was crafted during the meeting that captured that discussion. (Pages 61-93, 3/26/12 Advisory Board Minutes)
3. Chapter 9, Section 5 – Several grammatical changes and clarifications were made to this section. Clarifications to Section 5 include the addition of “by the landowner” to Subsection (a)(i) to indicate that the future land uses are to be determined by the surface owner and Subsection 5(a)(viii) was revised to clarify that buildings or structures may be left in place at the request of the surface owner. (Pages 96-100, 3/26/12 Advisory Board Minutes)
4. Chapter 9, Section 6 – This subsection was revised to clarify that revegetation success will be reviewed in consultation with the surface landowner. (Pages 102 and 105, 3/26/12 Advisory Board Minutes)

Chapter 10 Changes to Draft SOPR

No changes were made to Chapter 10 during the March 26, 2012 Advisory Board meeting and was not changed since the November 19, 2011 Advisory Board meeting.

DEPARTMENT OF ENVIRONMENTAL QUALITY

LAND QUALITY DIVISION

NONCOAL RULES AND REGULATIONS

CHAPTER 8

EXPLORATION BY DRILLING

Section 1. Conducting of Exploration by Drilling.

(a) Any discoverer conducting exploration by drilling within this State, shall do so in strict compliance with all the provisions of W.S. § 35-11-404 (2007 1977) and Sections 2, 3, and 4 of this Chapter. The requirements of this Chapter shall apply to exploration drilling within permitted mine operations.

(b) Prior to conducting any exploration by drilling outside of a permitted mine operation, the discoverer shall provide notification (Drilling Notification) and a reclamation bond acceptable to the Administrator. Construction of water wells outside of a permitted mine operation may be authorized under a drilling notification in accordance with Section 7 and in compliance with applicable requirements of the Wyoming State Engineer's Office. The Drilling Notification shall be in a form as specified by the Administrator and shall include information describing the approximate number and depth of holes to be drilled and a map showing approximate hole locations within the exploration area. The Administrator shall review the notification and the bond and notify the discoverer in a timely manner not to exceed 60 days from receipt whether the drilling is approved or additional information is required.

Subsection (b) is a combination of two sections that were combined in an effort to improve readability. No substantive changes were made to the rule language as the second sentence was its own subsection and has merely been inserted into the paragraph above.

Section 2. General Drill Hole Abandonment Completion and Restoration Requirements.

(a) All drill holes sunk for the purpose of conducting exploration by drilling, including those drilled within a permitted mine operation, shall be capped, sealed or plugged in the manner described hereinafter.

(i) Drill holes shall be plugged in the manner described in W.S. §

~~35-11-404(e)(i) to prevent adverse changes in water quality or quantity.~~

~~(ii) To prevent adverse changes in water quality or quantity, drill holes shall be sealed in the manner described in W.S. § 35-11-404(e)(ii) which shall include but not be limited to:~~

~~(A) Drilling muds used to seal exploration drill holes shall meet the following specifications, when using procedures provided in the latest current edition of American Petroleum Institute Standard Procedures for Testing Drilling Fluids:~~

- ~~(I) Ten minute gel strength of at least 20 lbs/100 sq. ft.~~
- ~~(II) Filtrate volume not to exceed 13.5 cc.~~

~~(B) For drill holes in gravel, scoria (clinker) or other materials resulting in lost circulation (drilling fluids cannot be circulated to the surface), the discoverer may use drill cuttings or other earthen materials to adequately backfill the hole.~~

~~(C) The Administrator and Director may approve other procedures at the request of the discoverer.~~

~~(iii) Drill holes shall be capped in the manner described in W.S. § 35-11-404(e)(iii) to ensure the safety of people, livestock, wildlife, and machinery in the area.~~

(b) Drill holes that have artesian flow of groundwater to the surface shall be plugged with cement-based sealant material, as specified and in the manner described below, to prevent fluid communication and adverse changes in water quality or quantity.

Based discussions during the March 26, 2012 Advisory Board meeting regarding the meaning of sealant materials vs. grout or other types of sealant it was decided that “sealant materials” would be the more general term and “grout” would be used in instances where specific recipes were discussed.

(c) Drill holes that have encountered any ground water or saturated stratum shall be sealed utilizing sealant materials and emplacement methods as prescribed hereinafter to prevent fluid communication and adverse changes in water quality or quantity.

(d) “Sealant materials” are materials that are stable, have low permeability and possesses minimum shrinking properties such that they are optimal sealing materials for well plugging and drill hole abandonment. Sealant materials shall be either: 1) a fluid mixture of water plus a cement-based or bentonite-based material, or 2) a dry bentonite-

based material, either chips or pellets specifically designed for sealing drill holes. Sealant materials shall meet the technical requirements for making a proper seal, shall meet applicable recognized industry standards—and shall be prepared according to manufacturer's directions for specific site requirements. The following are approved sealant materials:

(i) Neat Cement Slurry must consist of a mixture of Portland Cement and not more than 6 gallons of clean water per bag (1 cubic foot or 94 pounds) of cement;

(ii) Sand Cement Slurry must consist of a mixture of Portland Cement, sand, and water in the proportion of not more than 1 part by weight of sand to 1 part of cement with not more than 6 gallons of clean water per bag of cement (1 cubic foot or 94 pounds);

(iii) Concrete Slurry must consist of a mixture of Portland Cement, sand and gravel aggregate, and water in the proportion of not more than 1 part by weight of aggregate to 1 part of cement with not more than 6 gallons of clean water per bag of cement;

(iv) Cement/Bentonite Slurry must consist of a mixture of cement and bentonite in the proportion of not more than 6.5 gallons of water and 3 to 5 pounds of powdered bentonite per 94-pound sack of Portland cement;

(v) High Solids Bentonite Slurry means an inorganic mixture with a slurry density of 9.4 lbs./gal. minimum (20%) by weight of solids bentonite, with polymers, water, or other additives for the yield/rate control, which forms a low permeability seal (not greater than 1×10^{-7} cm/sec), and is mixed to the manufacturer's specifications; and

(vi) Nonslurry Bentonite must consist of chipped or pelletized bentonite varieties specifically designed to be used to seal drill holes.

(vii) Abandonment Gel means a mixture of bentonite with polymers and other additives and water in the proportion of one (1) barrel of water to 15 pounds of abandonment material with a minimum slurry density of 8.6 lbs./ gal. Abandonment Gel used to seal boreholes shall meet the following specifications when using American Petroleum Institute Standard Procedures for Testing Drilling Fluids:

(A) Ten minute gel strength of at least 20 lbs. / 100 sq. ft.

(B) Filtrate volume not to exceed 13.5 cc.

(C) Minimum Marsh Funnel viscosity of 60 sec. / quart.

(e) Sealant materials shall be emplaced in a manner that provides a water tight seal utilizing one of the following approved methods:

(i) By placing sealant materials by drill pipe, tremie pipe, or similar device in an upward direction from the bottom of the drill hole to within approximately five (5) feet of the ground surface; or

(ii) By placing nonslurry bentonite from the bottom of the drill hole to within approximately five (5) feet of the ground surface. Nonslurry bentonite shall not be utilized unless the drill hole is four inches or greater in diameter and less than 500 feet in depth and the material must be placed in such a manner that a bridge does not occur. Nonslurry bentonite may not be placed in more than 300 feet of standing liquid.

(f) For any hole that has been sealed with a sealant material, the discoverer responsible for sealing the drill hole shall:

(i) Measure the depth of the top of the sealant material column with the appropriate equipment after sufficient time (minimum 24 hours) has been allowed for the column of sealant material to set up; and

(ii) If the column of sealant material has dropped or fallen back, the discoverer shall continue to install sealant material until the top of the sealant material column remains at least 50 feet above the top of the uppermost saturated groundwater stratum; and

(iii) Install uncontaminated fill material, drill cuttings or one of the approved sealant materials listed herein from the top of the sealant material column to within approximately 5 feet of the ground surface.

(g) If a hole is drilled without the use of drilling fluids and the bottom of the hole is above the preexisting natural elevation of the uppermost saturated groundwater stratum, the drill hole shall be abandoned by completely backfilling from the bottom of the drill hole to the surface with uncontaminated earthen material or drill cuttings or approved grout materials described herein. When using uncontaminated earthen material or drill cuttings as a backfill material, this material should be emplaced in a manner to promote settling and compaction and to minimize voids caused by bridging. If the drill hole is backfilled to the natural ground surface with dry nonslurry materials then no surface cap is necessary.

(h) All drill holes shall be backfilled to the surface with dry nonslurry materials or capped with a concrete cap set at least 2 feet below the ground surface and then backfilled to the surface with native earthen materials to ensure the safety of people, livestock, wildlife, and machinery in the area.

(i) Drill holes shall be capped or backfilled immediately after drilling and

probing in accordance with W.S. 35-11-404(h). If it is necessary to temporarily delay the abandonment or keep the drill hole open for any reason, the drill hole must be securely covered with a temporary cap in a manner which will prevent injury to persons or animals. Drill holes shall not be left open for more than 30 days without specific authorization from the Administrator.

(j) For inspection and verification purposes, each drill hole shall be marked with a temporary marker that clearly identifies the name of the discoverer and the hole number until bond release is authorized. Holes shall not be marked with rebar, metal pipe or metal posts which could pose a hazard to people, livestock, wildlife or equipment.

(k) The Administrator may approve other drill hole abandonment procedures, and/or sealant materials, at the request of the discoverer.

(b) Each drill site as defined in Chapter 1, shall be restored as nearly as possible to its original condition, including:

(i) Excess drilling mud and drill cuttings or any acid forming or toxic materials uncovered during or created by exploration by drilling shall be properly disposed of so as not to constitute a fire, health, or safety hazard during or after the exploration by drilling;

(ii) To the extent possible, any surface preparation of the drill site shall be accomplished in a manner consistent with Chapter 3, Section 2(b), Land Quality Rules and Regulations;

(iii) To the extent possible, topsoil removal and stockpiling shall precede any excavation within the drill site in a manner consistent with Chapter 3, Section 2(c), Land Quality Rules and Regulations; and

(iv) To the extent possible, the discoverer shall reestablish the vegetative cover where vegetation has been removed or destroyed within the drill site by seeding, planting, transplanting, or by other adequate methods in a manner consistent with Chapter 3, Section 2(d), Land Quality Rules and Regulations.

(e) All lands, including access roads or terrain damaged in gaining access to or clearing the site, or lands whose natural state has been substantially disturbed as a result of the exploration by drilling, shall be restored as nearly as possible to their original condition, including reseeding if grass or other crop was destroyed.

Section 2 was rewritten to be consistent with the test hole plugging and sealing requirements contained in DEQ/WQD Rules and Regulations Chapter 11, Part G, Section 70; the recently approved SEO Rules and Regulations Part III and standards contained in American Society for Testing and Materials (ASTM) D-5299. In so doing any reference to the

term “drilling mud” has been removed and acceptable plugging and sealing materials have been defined consistent with the SEO Part III regulations.

The proposed regulations also require that holes be plugged and sealed bottom to top. The purpose for this requirement is three-fold: (1) to minimize the potential for any future settlement of the surface cap which could cause injury to humans, livestock, or wildlife, (2) to eliminate a vertical conduit that could allow contamination of ground water or at the very least soils deep within the profile, and (3) as described above, to be in conformance with DEQ/WQD and SEO standards. While the proposed changes were intended to address all exploration drilling in general, care was taken to differentiate between drilling operations that did and those that did not penetrate an aquifer. As such, the abandonment practices used for shallow auger type drilling in dry formations, such as in bentonite exploration, where drill cuttings are used for backfill, remain in effect.

Language was added to Section 2 concerning drill hole identification, which is a practice required under Chapter 11 for abandoned wells within in situ mine permit areas and is currently employed by bentonite and in situ uranium operators in their exploration programs.

Section 3. Reclamation of Drill Sites and Affected Lands.

(a) Drill sites and associated Light-use roads, as defined in Chapter 1, shall be restored as nearly as possible to their original condition.

(b) All drilling fluids, drill cuttings and geologic samples shall be confined and buried below grade to the extent possible. Excess drilling mud and drill cuttings or any acid-forming or toxic materials uncovered during or created by exploration by drilling, including petroleum contaminated soils, shall be properly disposed of so as not to constitute a fire, health, or safety hazard during or after the exploration by drilling.

(c) To the extent possible, any surface preparation of the drill site shall be accomplished in a manner consistent with Chapter 3, Section 2(b), Land Quality Noncoal Rules and Regulations.

(d) To the extent possible, topsoil removal and stockpiling shall precede any excavation within the drill site and associated light-use roads in a manner consistent with Chapter 3, Section 2(c) and 2(i), Land Quality Noncoal Rules and Regulations.

(e) To the extent possible, the discoverer shall reestablish the vegetative cover where vegetation has been removed or destroyed within the drill site and associated light-use roads by seeding, planting, transplanting, or by other adequate methods in a manner

consistent with Chapter 3, Section 2(d) and 2(i), Land Quality Noncoal Rules and Regulations.

Subsections (d) and (e) were revised to include a reference to Chapter 3, Section 2(i) to clarify that the performance standards for roads are also applicable as discussed during the March 26, 2012 Advisory Board meeting.

(f) All lands, including access roads or terrain damaged in gaining access to or clearing the site, or lands whose natural state has been substantially disturbed as a result of the exploration by drilling, shall be restored as nearly as possible to their original condition, including reseeding if grass or other crop was destroyed.

This section on surface reclamation was broken out as a separate section from the drill hole abandonment requirements for the sake of clarity. Minor additions were made to address several ubiquitous problems associated with exploration drilling operations: containment of drilling mud, disposal of petroleum contaminated soils, and reclamation of access routes.

Section 4 3. Bond.

(a) In order to assure and secure performance of the discoverer's obligations, each discoverer shall agree to post and keep posted a bond in the amount of \$10,000 for each exploration area. The amount of the bond shall be computed in accordance with established engineering principles, for accomplishing proper drill hole abandonment and surface restoration in accordance with the standards set out in this Chapter. This amount may be reduced when the discoverer demonstrates to the satisfaction of the Administrator, a lesser estimate, computed in accordance with established engineering principles, for accomplishing proper hole completion and surface restoration in accordance with the standards set out in this Chapter.

(b) The bond amount for any drill holes or any portion of the exploration area may be reduced when the discoverer demonstrates to the satisfaction of the Administrator that drill hole abandonment has been accomplished in accordance with the standards set out in this Chapter. The amount by which the bond is reduced may be returned to the discoverer or applied towards additional drilling. The bond for any drill sites or any portion of the exploration area may be released when reclamation has been completed and the Administrator finds that vegetation has been re-established. All bonds shall be signed by the discoverer as principal, by a good and sufficient corporate surety licensed to do business in the State, and be made payable to the State of Wyoming.

(c) In lieu of a bond, the discoverer may deposit Federally insured certificates of deposit payable to the Department of Environmental Quality, cash or government securities or all three.

(c) The Administrator may accept the bond of the discoverer itself without separate surety when the discoverer demonstrates to the satisfaction of the Administrator substantial compliance with the applicable provisions of Chapter 6 44, Land Quality Noncoal Rules and Regulations.

This section was modified to eliminate the reference to a flat \$10,000.00 bond as it is inadequate to address the large scale exploratory drilling performed by interests contemplating in situ operations or other major exploration projects. A provision has been added to allow for the bond to be reduced following proper abandonment of the drill holes. The reference to Chapter 11 on self-bonding has been corrected and reference to the deposit being payable to the DEQ has been removed.

Section 5 4. Termination and Report of Operations.

(a) Within 12 months after the completion and proper abandonment of any exploration drill hole ~~compliance with 2(a) and sufficient compliance with 2(b) and (e) so that full compliance can be predicted by the Administrator~~, the discoverer shall comply with the reporting requirements of W.S. § 35-11-404(e) or (f). The report shall be in a form as specified by the Administrator. After receipt of such report, the Administrator shall have one year to inspect and evaluate the ~~hole completion and surface restoration abandoned drill holes, drill sites, and access routes~~ and make a determination of whether to release the bond to the discoverer, require additional reclamation, or institute forfeiture proceedings. The abandoned drill hole reports shall be held as confidential for a period of five years from the date of filing. The period may be extended for additional five (5) year periods upon request of the person filing the report.

(b) Forfeiture proceedings and release of bonds shall be according to the procedure set forth in W.S. §§ 35-11-421 through 35-11-423; substituting therein “discoverer” for “operator;” “surface restoration” for “reclamation,” and “exploration by drilling” for “surface mining.”

(c) Failure to so inspect and evaluate abandoned drill holes shall constitute a decision by the Administrator that the discoverer has complied with this Chapter for release of bond purposes only. This one year limitation shall not be construed to alter or affect W.S. § 35-11-404(k)-(n), or any other rights of action against the discoverer granted pursuant to the statutory provisions of the Wyoming Environmental Quality Act.

Section 4 (a) was revised to include an option for the Administrator to require additional reclamation of a hole(s) rather than just bond release or forfeiture. A confidentiality provision was added because many of the areas currently considered for exploration have already been subject to

extensive drilling activity. By allowing the abandoned drill hole information to remain confidential ad infinitum, the department may be encouraging additional drilling, which only increases the potential for impacts to ground water. It is thought that making the information available after five years may result in a reduced amount of drilling in the future.

Section 6 5. Exceptions.

~~This Chapter shall not apply to holes drilled in conjunction with development within an existing permitted mine operation or for the purpose of conducting oil and gas exploration operations. Sections 2 and 3 of this Chapter, relating to drill hole abandonment and site reclamation, shall not apply to holes drilled in conjunction with open-pit development within an existing permitted surface mine operation that are within 500 feet of the active pit and are projected to be mined through within 12 months of drilling. This Chapter shall not apply to holes drilled for the purpose of conducting oil and gas exploration operations. Specific exceptions from certain requirements of this Chapter shall also be preserved in accordance with W.S. § 35-11-404(g) and (h).~~

Section 5 was rewritten primarily because DEQ/LQD Noncoal Rules and Regulations Chapter 11, In Situ Mining, references Chapter 8 for plugging and sealing of exploratory drill holes. Section 5 as currently written, waives the requirement for plugging and sealing of drill holes within any mine permit area. To resolve this contradiction, this Section was revised to clarify that only drill holes that will be mined through within 12 months by an advancing open-pit mine will be allowed to remain open and unplugged. The exemption for oil and gas exploration is also retained.

Section 7. Installation of Wells for Collection of Baseline Information.

(a) Construction of wells may be authorized by the Administrator under a Drilling Notification for the purpose of collecting ground water baseline data in preparation of a mine permit application.

(b) Prior to installation, the discoverer is encouraged, but not required, to submit a plan for review by the Administrator that describes the location and completion details of each proposed well. The Administrator shall review the plan and respond within 30 days.

(c) Wells shall be permitted in accordance with requirements of the State Engineer's Office, in accordance with W.S. 35-11-404 (c)(iv).

(d) Wells shall be constructed according to the standards contained in Chapter 11, Sections 6(b), 6(c), 6(d), 6(e), and 6(f), Land Quality Noncoal Rules and Regulations.

(e) Provisions shall be made such that each well is secured to prevent contaminant entry.

(f) Adequate bond shall be provided to assure that all wells are properly plugged and sealed and the sites restored.

(g) Well plugging and sealing and site reclamation shall follow the procedures outlined in Sections 2 and 3. Well casing shall be cut off at least two (2) feet below ground surface and any pump and associated appurtenances removed, as applicable, before the well is plugged and sealed.

(h) Well abandonment reports shall be filed with the Administrator and the State Engineer's Office within 12 months of abandonment.

Current LQD Rules and Regulations do not provide a formal permitting mechanism for the installation of baseline ground water monitoring and test wells that are needed in order to prepare a mine permit or R&D application. The DEQ/LQD has allowed for well installation under Drilling Notifications, but there are currently no regulatory standards for well construction or abandonment under a Drilling Notification. Assuming the operator proceeds with a mine permit application, the majority of such wells will be utilized in the proposed operation. Thus, it stands to reason that they should be constructed according to the standards established for an operating facility, hence the reference to Chapter 11. Well plugging and sealing requirements utilize the same procedures outlined in the Section 2 rewrite.

DEPARTMENT OF ENVIRONMENTAL QUALITY

LAND QUALITY DIVISION

NONCOAL RULES AND REGULATIONS

CHAPTER 9

NONCOAL

PERMIT APPLICATION REQUIREMENTS FOR SMALL MINING OPERATIONS

Chapter 9 has been largely rewritten with the intent of clarifying and spelling out all of the permit application requirements for small mine operations. Section 1 clarifies the applicability and scope of the chapter. Sections 2-5 follow the historical format for mine permit application, i.e. adjudication information, environmental baseline data, mine plan and reclamation plan. Section 6 specifies the standards and methods for evaluating reclamation success. Section 7 clarifies the information and process required to convert a small mine permit to a regular mine permit.

Section 1. Mining Permit Requirements General.

(a) Small mine operations are defined pursuant to W.S. § 35-11-401(j) as surface mining operations that remove no more than 10,000 cubic yards of overburden, topsoil and subsoil, and disturb no more than 10 acres of land in any one year.

(b) This Chapter sets out the information required for small mine permit applications. The requirements of Chapter 2, Regular Mine Permit Applications, shall not apply to small mine operations. The requirements of Chapter 3, Environmental Protection Performance Standards, shall apply to small mine operations, except as specifically noted herein.

(c) The Administrator shall not accept or approve small mine permit applications for coal mines, uranium mines, underground mines or in-situ mines.

(d) Prior to the commencement of a small surface mining operation involving not more than 10,000 cubic yards of overburden, topsoil and subsoil, and ten acres of affected land in any one year, an application shall be submitted to the Administrator in duplicate on forms supplied by the Division. Each application shall contain:—the information as set out in this Chapter and in a format as required by the Administrator.

The revision presented above is the result of a court decision stating that the definition of “overburden” as provided in W.S. § 35-11-103(e)(iv) clearly and unambiguously included topsoil. And that gravel mine

operators include topsoil in calculating the amount of overburden disturbed each year at each small mining operation. (Reference the footnotes to W.S. § 35-11-103 for the court's decision.) The definition of "overburden" in the statutes "means all of the earth and other materials which lie above the mineral deposit..." Therefore subsoil is also included in the volume of material removed above the mineral deposit.

Section 2. Adjudication Information.

(a i) Each application for a small mine permit shall include the following: All information required in W.S. § 35-11-406(a) except:

(i) The name and address of the applicant, and, if the applicant is a partnership, association, or corporation, the names and addresses of all managers, partners and executives directly responsible for operations in this state;

(ii) A sworn statement that the applicant has the right and power by legal estate owned to mine from the land for which the permit is desired;

(iii) A sworn statement that the applicant has not forfeited a bond posted for reclamation purposes and that all statements contained in the permit application are true and correct to the best knowledge of the applicant;

(iv) The names and last known addresses of the owners of record of the surface and mineral rights on the land to be covered by the proposed permit. If more than one landowner is included, then a map shall be provided to illustrate land ownership;

(v) The names and last known addresses of the owners of record of the surface rights on the lands adjacent to the proposed permit area . Adjacent means all lands within one-half mile of the proposed permit area. If more than one landowner is included, then a map shall be provided to illustrate land ownership;

(vi) An instrument of consent from the surface landowner , if different from the owner of the mineral estate, to the proposed mining and reclamation plan. If surface owner consent cannot be obtained, the options contained in W.S. § 35-11-406(b)(xii) shall apply;

(vii) An identification of the lands to be included in the permit area to include:

(A) W.S. § 35-11-406(a)(vi)(A) is modified to require the location A legal description of the proposed permit area by legal subdivision, section, township and range. If there is no other survey, the permit area or any portion thereof cannot be properly described using legal subdivisions then the permit area shall be described give the location by protracted survey and map, or metes and bounds

description, which shall be accompanied by a map prepared by a licensed surveyor; claim number and mining district.

(B) The name, if any, by which such lands or any part thereof are known;

(C) The total number of acres in the area covered by the permit application and the approximate number of acres to be affected by the proposed operation; and

(D B) W.S. § 35-11-406(a)(vi)(D) is suspended. The nearest town, village or city.

(viii) A United States Geological Survey topographic map at a scale of 1:24,000 if available, or an equivalent map, clearly identifying the boundaries of the proposed permit area, including access roads, and illustrating the surrounding area at least one-half (1/2) mile in all directions from the permit area;

(ix D) W.S. § 35-11-406(a)(ix) is modified to require only: A map at an appropriate scale showing the boundaries of the permit area and the lands to be affected, and including the following features within and adjacent to the permit area:

(I) A map based upon public records showing the boundaries of the land to be affected.

(A II) The names of Any surface waters, including lakes, ponds, streams, springs, canals, drainages, irrigation ditches and water courses within and adjacent to the proposed permit area;

(B III) Water wells on and within one-half mile of the permit area shall be located on a map where if the maximum expected depth of disturbance the mine pit is within 20 feet of or below the water table.;

(C) Buildings, structures and dwellings;

(D) Roads, railroads, public or private rights-of-way or easements, utility lines, oil wells and gas wells; and

(E IV) A map to show An outline of all areas previously disturbed by surface or underground mining or which will be affected by future underground mining as a guide to potential subsidence problems.

(x) The mineral or minerals to be mined;

(xi) The estimated dates of commencement and termination of the

proposed permit operation:

(xii) A written statement from the appropriate city and/or county agency documenting that the proposed mining operation does not conflict with existing city regulations/ordinances or county zoning/planning provisions;

Subsection (xii) above was added based on counties in Wyoming having adopted Special Use Permits for mining to ensure the mine operations meet specific city or county regulations that are outside of the scope of Article 4 of the Wyoming Environmental Quality Act. Often these requirements relate to specific local concerns such as noise, traffic, hours of operation and other potential public nuisance issues. This permit requirement would document that the city or county requirements have been met and will help to alleviate potential public concerns that might otherwise result in objections to the mine permit application.

(xiii) If the proposed operation will affect any lands within 300 feet of any existing occupied dwelling, home, public building, school, church, community or institutional building, park or cemetery, the written consent of the appropriate landowner shall be provided; and

(xiv) A filing fee of one hundred dollars (\$100.00) plus ten dollars (\$10.00) for each acre in the requested permit, but the maximum fee for any single permit shall not exceed two thousand dollars (\$2,000.00). The permit is amendable without public notice or hearing if the area sought to be included by amendment does not exceed twenty percent (20%) of the total permit acreage, is contiguous to the permit area and if the applicant includes all of the information necessary in the amendment application that is required in this section including a mining and reclamation plan acceptable to the Administrator. The fee for a permit amendment shall be two hundred dollars (\$200) plus ten dollars (\$10.00) for each acre not to exceed two thousand dollars (\$2,000).

(b) Notification and publication requirements. Upon written notification by the Division that the application is complete, the following procedure shall be followed: The procedures contained in W.S. § 35-11-406(d) through (m) and (o) and (p) shall apply.

(i) W.S. § 35-11-406(d) shall be met.

(ii) All requirements of W.S. § 35-11-406(j) shall be met except the applicant shall cause notice of the application to be published once a week for only two consecutive weeks in a newspaper of general circulation in the location of the proposed operation.

(e) All requirements of W.S. § 35-11-406(k) shall be met.

(c) The applicant shall post a reclamation bond in the amount and in a form acceptable to the Administrator prior to approval of the small mine permit application.

Section 3. Environmental Baseline Information.

(a E) W.S. § 35-11-406(a)(vii) is modified to require only The permit application shall include a general description of the land within the permit area, which shall include the following information:

(i H) A description of the present land use(s) within the permit boundary including a map at the same scale as the postmining map showing the contours of the proposed permit area and the surrounding lands;.

(ii I) A map of vegetation types, range sites or ecological response units and a range site-range condition survey, or equivalent, on the proposed permit area, including along with a list of species and a ranking of their relative abundance in each vegetation type. The applicant is encouraged to shall submit labeled photographs to demonstrate each vegetation type and to document areas of sparse vegetation and any areas containing noxious weeds. Locations photographed should shall be shown on the vegetation map;.

(iii III) A description of any surface waters within the proposed permit area including estimated average flow rates, storage volume of any reservoirs and associated water rights within the permit area of any stream, reservoir, or lake. Depth to the groundwater within the mine area shall be stated, including a description of how the groundwater depth was determined; indicated.

(iv IV) A soil map which identifies the soil types, sampling locations, and proposed salvage depths;

(v IV) A report describing the soil types and their suitability for reclamation and depths and volume of suitable topsoil present on the proposed affected lands. Also, a description of the subsoil and/or overburden material existing between the topsoil and mineral seams;.

(vi) The applicant shall consult with both the Wyoming Game and Fish Department and the U.S. Fish and Wildlife Service prior to submission of the permit application and shall address their recommendations relative to wildlife surveys, monitoring and mitigation in the mine permit application as required by State and Federal law. Copies of all correspondence to and from these agencies shall be included in the permit application. The Administrator shall also consult with both wildlife agencies during the review of the mine permit application to insure that their recommendations are addressed to the extent that they are within the scope of the Act; and

(vii) A copy of the appropriate National Wetlands Inventory Map with

the permit area and disturbance boundary delineated. If potential wetlands exist that will be disturbed or impacted by mine related activity, then the applicant shall perform a wetland delineation according to Army Corps of Engineers accepted procedures. If the proposed operation will avoid any impact to the potential wetland, either through direct disturbance or by affecting the watershed, then this should be clearly stated in the mine plan.

Section 4. Mine Operations Plan.

(a) The application shall include a mining plan which shall include the following information:

(ii) In addition to A a description of the nature and scope of the proposed operation, including roads to be constructed, mining technique, equipment, and method of operation to be used, and a projected schedule for the operation each operator shall supply all information required in W.S. § 35-11-406(b) except:

(ii D) W.S. § 35-11-406(b)(v) is modified to require only a A map showing the location of all activities associated with the operation including roads, mine pit areas, out-of-pit spoil piles, waste water ponds, temporary drainage diversions, settling ponds, stockpiles for topsoil, overburden, ore, product and waste, plant site and other processing facilities;

(iii) Typical cross sections as appropriate to illustrate the proposed mine area, oriented perpendicular to each other and showing the natural ground surface elevation, top and bottom of the mineral seam, the maximum expected depth of mining and the approximate elevation of the groundwater table;

(iv F) W.S. § 35-11-406(b)(viii) is modified to require only a A description of how topsoil and subsoil will be salvaged, stockpiled, and replaced during conserved for reclamation, including an estimate of the depth and volume of topsoil and subsoil to be salvaged on an annual basis;

(v) A plan for ensuring that all acid forming, or toxic material, or materials constituting a fire, health or safety hazard uncovered during or created by the mining process are promptly treated or disposed of during the mining process in a manner designed to prevent pollution of surface or subsurface water or threats to human or animal health and safety. Such method may include, but not limited to covering, burying, impounding or otherwise containing or disposing of the acid, toxic, radioactive or otherwise dangerous material;

(vi) A description of all waste materials that may be generated by the operation and plans for their storage and disposal. Only waste materials classified as Clean Fill shall be disposed within the mine permit area. Written permission from the landowner shall be required. Clean fill, for the purposes of this Chapter, means only

uncontaminated natural soil materials, rock, hardened asphalt rubble, brick and concrete rubble with no protruding rebar. All other waste materials shall be taken off-site for disposal at an authorized disposal site;

(vii) The procedures proposed to avoid constituting a public nuisance, endangering the public safety, human or animal life, property, wildlife and plant life in or adjacent to the permit area. The plan shall include fencing as necessary to prevent unauthorized access of persons, livestock or wildlife and to protect the surface owner's ongoing operations; and

(viii) The methods of diverting surface water around the affected lands where necessary to effectively control pollution or unnecessary erosion.

Section 5. Reclamation Plan.

(a) The application shall include a reclamation plan describing the proposed future land use or uses and a plan whereby the applicant will reclaim all of the affected lands to the proposed future use or uses. The reclamation plan shall include the following:

(i) A statement of the proposed uses of the land by the landowner after reclamation;

Subsection (i) was revised to clarify that the landowner states what the proposed uses of the land will be after reclamation.

(ii A) W.S. § 35-11-406(b)(ii) is modified to also Plans for grading and contouring suitable for the proposed land uses after reclamation, which shall include statements as to the maximum slope that will be created and a plan to reestablish the original surface drainage;

(iii E) W.S. § 35-11-406(b)(vii) is modified to allow A postmine contour map at an appropriate scale showing the proposed contours of the affected area after completion of proposed reclamation. †The Administrator to may waive this requirement if requested by the applicant operator and the degree of surface disturbance is small. Typical cross sections oriented perpendicular to each other shall be provided to show the original natural ground surface, the maximum depth of mining, the maximum horizontal extent of mining, and the proposed reclamation surfaces and slopes;

(iv) The methods of reclamation for effective control of erosion, siltation and pollution of affected stream channels and stream banks by the mining operations;

(v) If the reclamation plan proposes a permanent water impoundment, the applicant must provide the following information:

(I) The applicant shall consult with and comply with all applicable requirements of the Wyoming State Engineer's Office. Copies of correspondence and any permit from the State Engineer shall be provided;

(II) Plans demonstrating that the impoundment has been designed to insure permanent stability and that the slopes and contouring will prevent safety hazards and allow for safe access for all water users, including livestock and wildlife;

(III) Documentation that the size of the impoundment and the expected quantity and quality of water will be suitable for the proposed uses. If the applicant is unable to demonstrate to the satisfaction of the Administrator that the water quantity and quality will be suitable for the proposed use, the applicant shall provide an alternate plan; and

(IV) The applicant may be required to monitor the water in the impoundment following construction to demonstrate that the quantity and quality are suitable for the proposed uses.

(vi) Plans for topsoil replacement and seedbed preparation, including the depth of subsoil and topsoil to be applied and the methods for preparing a proper seedbed;

(vii B) W.S. § 35-11-406(b)(iii) is modified to Species to be seeded, seeding rates, seeding methods, description of any other revegetation treatments to be employed, also include a description of the methods and a schedule of for seedbed preparation and seeding, the amounts of plants to be used, and protective measures against grazing animals.;

(viii C) W.S. § 35-11-406(b)(iv) is suspended. Method of disposal of all buildings and structures erected or utilized for the operation and description of any buildings and structures that will be left in place at the request of the surface owner;

Proposed Subsection (viii) was revised during the March 26, 2012 Advisory Board meeting to clarify that a landowner may request that buildings or structures be left in place.

(G) W.S. § 35-11-406(b)(x) is suspended.

(ix) A projected timetable for accomplishment of the reclamation plan; and

(x) An itemized estimate of the cost to reclaim all lands to be affected during the first 12 months of operation.

Section 6. Evaluation of Revegetation Success.

Revegetation success shall be evaluated by the Administrator utilizing qualitative methods, no sooner than the fifth growing season following completion of reclamation. In consultation with the landowner revegetation shall be deemed successful when: 1) the established vegetation species are self-renewing; 2) the total vegetative cover of perennial species, excluding noxious weeds, and any species in the approved seed mix is at least equal to the total vegetative cover of perennial species, excluding noxious weeds, on the area before mining; and 3) the species diversity and composition are suitable for the approved postmining land uses.

Section 6 above was revised during the March 26, 2012 Advisory Board meeting to clarify that the landowner is consulted in determining revegetation success.

Section 27. Conversion of Small Mine Permit to Standard Regular Mine Permit.

(a) If an operator, holding a valid mining permit under W.S. § 35-11-401(j) for a small mining operation, intends to expand his operation within the approved permit area to remove more than 10,000 cubic yards of overburden, topsoil and subsoil, per year or affect more than ten acres of land per year, the operator shall submit an application for a permit revision and obtain approval for the expansion prior to the time when he intends to exceed the established limits. The application shall include the following information:

- (i) Application on forms supplied by the Division,
- (ii) Revised mining and reclamation plans and schedules,
- (iii) Revised maps, in such detail as required by the Administrator,
- (iv) Updated environmental baseline information in such detail as required by the Administrator,
- (v) and A~~an~~ appropriate reclamation bond. ~~to the Land Quality Division.~~

(b) The provisions of W.S. § 35-11-406(d), (j) and (k) will be required. Any public hearing shall apply only to the request of the operator to expand his operation, and the valid small mining permit already held by the operator will not be affected.

DEPARTMENT OF ENVIRONMENTAL QUALITY

LAND QUALITY DIVISION

NONCOAL RULES AND REGULATIONS

CHAPTER 10

LIMITED MINING OPERATIONS

FOR TEN ACRES OR LESS OF AFFECTED LAND

No changes are proposed for Sections 1-5 of Chapter 10.

...

Section 6. Transfers and Other Authorized Operators

(a) The right to operate under a limited mining exemption may be transferred to a new operator with written approval of the existing operator and written acceptance by the Administrator, provided the new operator submits a new Form 10 and bond required for the new operation and assumes the reclamation liability of the existing operator and does not violate the limitations provided in Section 8 below.

(b) ~~The operator may allow contractors to operate within its limited mining area provided notice is given to the Division and the contractor meets the other requirements of the Division, including the filing of Form 10.~~

The revision is proposed above to clarify that an operator must also comply with the limitations found in Section 8 below. Section (b) is proposed for deletion because the requirements in (a) make it necessary for any “operators” of a limited mining exemption must submit a new Form 10. The revision in (b) also clarifies rule language which is undefined in the regulations (“contractors”), by requiring that all “operators” must have a Form 10 and bond in place prior to mining activities.

...

No changes are proposed for Section 7 of Chapter 10.

Section 8. Limitation of Operations.

(a) The operator will not be allowed to:

(i) Conduct more than one operation under W.S. § 35-11-401(e)(vi) within adjacent areas when the operations are to mine the same minerals, or

(ii) Conduct nearby more than one operations of ten acres or less within any six-mile radius when the two operations are to mine the same mineral, so as to circumvent the general requirements of the Environmental Quality Act. The Administrator may allow two operations for the same mineral within the six-mile radius if one of the operations has completed reclamation work and is awaiting bond release. Complete reclamation for the purposes of this section means backfilling, grading, topsoil application and final seeding activities have been completed.

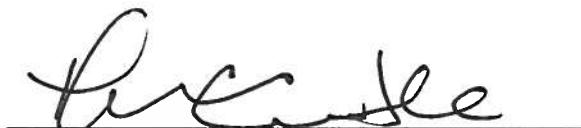
The proposed revision above is intended to clarify that the Land Quality Division interprets “nearby” to mean a six mile radius in connection with multiple operations mining the same mineral by the same operator. The proposed revision also allows for an operator to operate a second operation if the first operation has been reclaimed and is awaiting bond release.

CONCLUSION

The Environmental Quality Council, in accordance with the authority granted to it by W.S. § 35-11-112 As Amended, and having complied with the provision of the Wyoming Administrative Procedures Act, find as follows:

1. These rules provide for the regulation of noncoal mining and reclamation operations in accordance with the requirements of W.S. § 35-11-101 through W.S. § 35-11-1803, As Amended (Wyoming Environmental Quality Act).
2. These Noncoal Regulations are necessary and appropriate to preserve and exercise the primary responsibilities and rights of the State of Wyoming; to retain for the State the control over its air, land, and water resources and secure cooperation between agencies of the State and Federal Government in carrying out the policy and purposes of the Environmental Quality Act.
3. These Noncoal Regulations are reasonable and necessary for the effectuation of W.S. § 35-11-101 through W.S. § 35-11-1803, As Amended.
4. These Noncoal Rules and Regulations are necessary and appropriate to protect the public health, safety, welfare, and environment of the State of Wyoming.

Dated this 13th day of July, 2012.



Environmental Quality Council

DEPARTMENT OF ENVIRONMENTAL QUALITY

LAND QUALITY DIVISION

NONCOAL RULES AND REGULATIONS

CHAPTER 8

EXPLORATION BY DRILLING

Section 1. Conducting of Exploration by Drilling.

(a) Any discoverer conducting exploration by drilling within this State, shall do so in strict compliance with all the provisions of W.S. § 35-11-404 (2007 1977) and Sections 2, 3, and 4 of this Chapter. The requirements of this Chapter shall apply to exploration drilling within permitted mine operations.

(b) Prior to conducting any exploration by drilling outside of a permitted mine operation, the discoverer shall provide notification (Drilling Notification) and a reclamation bond acceptable to the Administrator. Construction of water wells outside of a permitted mine operation may be authorized under a drilling notification in accordance with Section 7 and in compliance with applicable requirements of the Wyoming State Engineer's Office. The Drilling Notification shall be in a form as specified by the Administrator and shall include information describing the approximate number and depth of holes to be drilled and a map showing approximate hole locations within the exploration area. The Administrator shall review the notification and the bond and notify the discoverer in a timely manner not to exceed 60 days from receipt whether the drilling is approved or additional information is required.

Section 2. General Drill Hole Abandonment Completion and Restoration Requirements.

(a) All drill holes sunk for the purpose of conducting exploration by drilling, including those drilled within a permitted mine operation, shall be capped, sealed or plugged in the manner described hereinafter.

(i) Drill holes shall be plugged in the manner described in W.S. § 35-11-404(e)(i) to prevent adverse changes in water quality or quantity.

(ii) To prevent adverse changes in water quality or quantity, drill holes

~~shall be sealed in the manner described in W.S. § 35-11-404(c)(ii) which shall include but not be limited to:~~

~~(A) Drilling muds used to seal exploration drill holes shall meet the following specifications, when using procedures provided in the latest current edition of American Petroleum Institute Standard Procedures for Testing Drilling Fluids:~~

~~(I) Ten minute gel strength of at least 20 lbs/100 sq. ft.~~

~~(II) Filtrate volume not to exceed 13.5 cc.~~

~~(B) For drill holes in gravel, scoria (clinker) or other materials resulting in lost circulation (drilling fluids cannot be circulated to the surface), the discoverer may use drill cuttings or other earthen materials to adequately backfill the hole.~~

~~(C) The Administrator and Director may approve other procedures at the request of the discoverer.~~

~~(iii) Drill holes shall be capped in the manner described in W.S. § 35-11-404(e)(iii) to ensure the safety of people, livestock, wildlife, and machinery in the area.~~

(b) Drill holes that have artesian flow of groundwater to the surface shall be plugged with cement-based sealant material, as specified and in the manner described below, to prevent fluid communication and adverse changes in water quality or quantity.

(c) Drill holes that have encountered any ground water or saturated stratum shall be sealed utilizing sealant materials and emplacement methods as prescribed hereinafter to prevent fluid communication and adverse changes in water quality or quantity.

(d) “Sealant materials” are materials that are stable, have low permeability and possesses minimum shrinking properties such that they are optimal sealing materials for well plugging and drill hole abandonment. Sealant materials shall be either: 1) a fluid mixture of water plus a cement-based or bentonite-based material, or 2) a dry bentonite-based material, either chips or pellets specifically designed for sealing drill holes. Sealant materials shall meet the technical requirements for making a proper seal, shall meet applicable recognized industry standards and shall be prepared according to manufacturer’s directions for specific site requirements. The following are approved sealant materials:

(i) Neat Cement Slurry must consist of a mixture of Portland Cement and not more than 6 gallons of clean water per bag (1 cubic foot or 94 pounds) of cement;

(ii) Sand Cement Slurry must consist of a mixture of Portland Cement, sand, and water in the proportion of not more than 1 part by weight of sand to 1 part of

cement with not more than 6 gallons of clean water per bag of cement (1 cubic foot or 94 pounds);

(iii) Concrete Slurry must consist of a mixture of Portland Cement, sand and gravel aggregate, and water in the proportion of not more than 1 part by weight of aggregate to 1 part of cement with not more than 6 gallons of clean water per bag of cement;

(iv) Cement/Bentonite Slurry must consist of a mixture of cement and bentonite in the proportion of not more than 6.5 gallons of water and 3 to 5 pounds of powdered bentonite per 94-pound sack of Portland cement;

(v) High Solids Bentonite Slurry means an inorganic mixture with a slurry density of 9.4 lbs./gal. minimum (20%) by weight of solids bentonite, with polymers, water, or other additives for the yield/rate control, which forms a low permeability seal (not greater than 1×10^{-7} cm/sec), and is mixed to the manufacturer's specifications; and

(vi) Nonslurry Bentonite must consist of chipped or pelletized bentonite varieties specifically designed to be used to seal drill holes.

(vii) Abandonment Gel means a mixture of bentonite with polymers and other additives and water in the proportion of one (1) barrel of water to 15 pounds of abandonment material with a minimum slurry density of 8.6 lbs./ gal. Abandonment Gel used to seal boreholes shall meet the following specifications when using American Petroleum Institute Standard Procedures for Testing Drilling Fluids:

(A) Ten minute gel strength of at least 20 lbs. / 100 sq. ft.

(B) Filtrate volume not to exceed 13.5 cc.

(C) Minimum Marsh Funnel viscosity of 60 sec. / quart.

(e) Sealant materials shall be emplaced in a manner that provides a water tight seal utilizing one of the following approved methods:

(i) By placing sealant materials by drill pipe, tremie pipe, or similar device in an upward direction from the bottom of the drill hole to within approximately five (5) feet of the ground surface; or

(ii) By placing nonslurry bentonite from the bottom of the drill hole to within approximately five (5) feet of the ground surface. Nonslurry bentonite shall not be utilized unless the drill hole is four inches or greater in diameter and less than 500 feet in depth and the material must be placed in such a manner that a bridge does not occur. Nonslurry bentonite may not be placed in more than 300 feet of standing liquid.

(f) For any hole that has been sealed with a sealant material, the discoverer responsible for sealing the drill hole shall:

(i) Measure the depth of the top of the sealant material column with the appropriate equipment after sufficient time (minimum 24 hours) has been allowed for the column of sealant material to set up; and

(ii) If the column of sealant material has dropped or fallen back, the discoverer shall continue to install sealant material until the top of the sealant material column remains at least 50 feet above the top of the uppermost saturated groundwater stratum; and

(iii) Install uncontaminated fill material, drill cuttings or one of the approved sealant materials listed herein from the top of the sealant material column to within approximately 5 feet of the ground surface.

(g) If a hole is drilled without the use of drilling fluids and the bottom of the hole is above the preexisting natural elevation of the uppermost saturated groundwater stratum, the drill hole shall be abandoned by completely backfilling from the bottom of the drill hole to the surface with uncontaminated earthen material or drill cuttings or approved grout materials described herein. When using uncontaminated earthen material or drill cuttings as a backfill material, this material should be emplaced in a manner to promote settling and compaction and to minimize voids caused by bridging. If the drill hole is backfilled to the natural ground surface with dry nonslurry materials then no surface cap is necessary.

(h) All drill holes shall be backfilled to the surface with dry nonslurry materials or capped with a concrete cap set at least 2 feet below the ground surface and then backfilled to the surface with native earthen materials to ensure the safety of people, livestock, wildlife, and machinery in the area.

(i) Drill holes shall be capped or backfilled immediately after drilling and probing in accordance with W.S. 35-11-404(h). If it is necessary to temporarily delay the abandonment or keep the drill hole open for any reason, the drill hole must be securely covered with a temporary cap in a manner which will prevent injury to persons or animals. Drill holes shall not be left open for more than 30 days without specific authorization from the Administrator.

(j) For inspection and verification purposes, each drill hole shall be marked with a temporary marker that clearly identifies the name of the discoverer and the hole number until bond release is authorized. Holes shall not be marked with rebar, metal pipe or metal posts which could pose a hazard to people, livestock, wildlife or equipment.

(k) The Administrator may approve other drill hole abandonment procedures, and/or sealant materials, at the request of the discoverer.

(b) Each drill site as defined in Chapter 1, shall be restored as nearly as possible to its original condition, including:

(i) Excess drilling mud and drill cuttings or any acid-forming or toxic materials uncovered during or created by exploration by drilling shall be properly disposed of so as not to constitute a fire, health, or safety hazard during or after the exploration by drilling;

(ii) To the extent possible, any surface preparation of the drill site shall be accomplished in a manner consistent with Chapter 3, Section 2(b), Land Quality Rules and Regulations;

(iii) To the extent possible, topsoil removal and stockpiling shall precede any excavation within the drill site in a manner consistent with Chapter 3, Section 2(c), Land Quality Rules and Regulations; and

(iv) To the extent possible, the discoverer shall reestablish the vegetative cover where vegetation has been removed or destroyed within the drill site by seeding, planting, transplanting, or by other adequate methods in a manner consistent with Chapter 3, Section 2(d), Land Quality Rules and Regulations.

(e) All lands, including access roads or terrain damaged in gaining access to or clearing the site, or lands whose natural state has been substantially disturbed as a result of the exploration by drilling, shall be restored as nearly as possible to their original condition, including reseeding if grass or other crop was destroyed.

Section 3. Reclamation of Drill Sites and Affected Lands.

(a) Drill sites and associated light-use roads, as defined in Chapter 1, shall be restored as nearly as possible to their original condition.

(b) All drilling fluids, drill cuttings and geologic samples shall be confined and buried below grade to the extent possible. Excess drilling mud and drill cuttings or any acid-forming or toxic materials uncovered during or created by exploration by drilling, including petroleum contaminated soils, shall be properly disposed of so as not to constitute a fire, health, or safety hazard during or after the exploration by drilling.

(c) To the extent possible, any surface preparation of the drill site shall be accomplished in a manner consistent with Chapter 3, Section 2(b), Land Quality Noncoal Rules and Regulations.

(d) To the extent possible, topsoil removal and stockpiling shall precede any excavation within the drill site and associated light-use roads in a manner consistent with Chapter 3, Section 2(c) and 2(i), Land Quality Noncoal Rules and Regulations.

(e) To the extent possible, the discoverer shall reestablish the vegetative cover where vegetation has been removed or destroyed within the drill site and associated light-use roads by seeding, planting, transplanting, or by other adequate methods in a manner consistent with Chapter 3, Section 2(d) and 2(i), Land Quality Noncoal Rules and Regulations.

(f) All lands, including access roads or terrain damaged in gaining access to or clearing the site, or lands whose natural state has been substantially disturbed as a result of the exploration by drilling, shall be restored as nearly as possible to their original condition, including reseeding if grass or other crop was destroyed.

Section 4 3. Bond.

(a) In order to assure and secure performance of the discoverer's obligations, each discoverer shall agree to post and keep posted a bond in the amount of \$10,000 for each exploration area. The amount of the bond shall be computed in accordance with established engineering principles, for accomplishing proper drill hole abandonment and surface restoration in accordance with the standards set out in this Chapter. This amount may be reduced when the discoverer demonstrates to the satisfaction of the Administrator, a lesser estimate, computed in accordance with established engineering principles, for accomplishing proper hole completion and surface restoration in accordance with the standards set out in this Chapter.

(b) The bond amount for any drill holes or any portion of the exploration area may be reduced when the discoverer demonstrates to the satisfaction of the Administrator that drill hole abandonment has been accomplished in accordance with the standards set out in this Chapter. The amount by which the bond is reduced may be returned to the discoverer or applied towards additional drilling. The bond for any drill sites or any portion of the exploration area may be released when reclamation has been completed and the Administrator finds that vegetation has been re-established. All bonds shall be signed by the discoverer as principal, by a good and sufficient corporate surety licensed to do business in the State, and be made payable to the State of Wyoming.

(c) In lieu of a bond, the discoverer may deposit Federally insured certificates of deposit payable to the Department of Environmental Quality, cash or government securities or all three.

(d) The Administrator may accept the bond of the discoverer itself without separate surety when the discoverer demonstrates to the satisfaction of the Administrator substantial compliance with the applicable provisions of Chapter 6 44, Land Quality Noncoal

Rules and Regulations.

Section 5 4. Termination and Report of Operations.

(a) Within 12 months after the completion and proper abandonment of any exploration drill hole compliance with 2(a) and sufficient compliance with 2(b) and (e) so that full compliance can be predicted by the Administrator, the discoverer shall comply with the reporting requirements of W.S. § 35-11-404(e) or (f). The report shall be in a form as specified by the Administrator. After receipt of such report, the Administrator shall have one year to inspect and evaluate the hole completion and surface restoration abandoned drill holes, drill sites, and access routes and make a determination of whether to release the bond to the discoverer, require additional reclamation, or institute forfeiture proceedings. The abandoned drill hole reports shall be held as confidential for a period of five years from the date of filing. The period may be extended for additional five (5) year periods upon request of the person filing the report.

(b) Forfeiture proceedings and release of bonds shall be according to the procedure set forth in W.S. §§ 35-11-421 through 35-11-423; substituting therein “discoverer” for “operator;” “surface restoration” for “reclamation,” and “exploration by drilling” for “surface mining.”

(c) Failure to so inspect and evaluate abandoned drill holes shall constitute a decision by the Administrator that the discoverer has complied with this Chapter for release of bond purposes only. This one year limitation shall not be construed to alter or affect W.S. § 35-11-404(k)-(n), or any other rights of action against the discoverer granted pursuant to the statutory provisions of the Wyoming Environmental Quality Act.

Section 6 5. Exceptions.

This Chapter shall not apply to holes drilled in conjunction with development within an existing permitted mine operation or for the purpose of conducting oil and gas exploration operations. Sections 2 and 3 of this Chapter, relating to drill hole abandonment and site reclamation, shall not apply to holes drilled in conjunction with open-pit development within an existing permitted surface mine operation that are within 500 feet of the active pit and are projected to be mined through within 12 months of drilling. This Chapter shall not apply to holes drilled for the purpose of conducting oil and gas exploration operations. Specific exceptions from certain requirements of this Chapter shall also be preserved in accordance with W.S. § 35-11-404(g) and (h).

Section 7. Installation of Wells for Collection of Baseline Information.

(a) Construction of wells may be authorized by the Administrator under a Drilling Notification for the purpose of collecting ground water baseline data in preparation of a mine permit application.

(b) Prior to installation, the discoverer is encouraged, but not required, to submit a plan for review by the Administrator that describes the location and completion details of each proposed well. The Administrator shall review the plan and respond within 30 days.

(c) Wells shall be permitted in accordance with requirements of the State Engineer's Office, in accordance with W.S. 35-11-404 (c)(iv).

(d) Wells shall be constructed according to the standards contained in Chapter 11, Sections 6(b), 6(c), 6(d), 6(e), and 6(f), Land Quality Noncoal Rules and Regulations.

(e) Provisions shall be made such that each well is secured to prevent contaminant entry.

(f) Adequate bond shall be provided to assure that all wells are properly plugged and sealed and the sites restored.

(g) Well plugging and sealing and site reclamation shall follow the procedures outlined in Sections 2 and 3. Well casing shall be cut off at least two (2) feet below ground surface and any pump and associated appurtenances removed, as applicable, before the well is plugged and sealed.

(h) Well abandonment reports shall be filed with the Administrator and the State Engineer's Office within 12 months of abandonment.

DEPARTMENT OF ENVIRONMENTAL QUALITY

LAND QUALITY DIVISION

NONCOAL RULES AND REGULATIONS

CHAPTER 9

NONCOAL

PERMIT APPLICATION REQUIREMENTS FOR SMALL MINING OPERATIONS

Section 1. Mining Permit Requirements General.

(a) Small mine operations are defined pursuant to W.S. § 35-11-401(j) as surface mining operations that remove no more than 10,000 cubic yards of overburden, topsoil and subsoil, and disturb no more than 10 acres of land in any one year.

(b) This Chapter sets out the information required for small mine permit applications. The requirements of Chapter 2, Regular Mine Permit Applications, shall not apply to small mine operations. The requirements of Chapter 3, Environmental Protection Performance Standards, shall apply to small mine operations, except as specifically noted herein.

(c) The Administrator shall not accept or approve small mine permit applications for coal mines, uranium mines, underground mines or in-situ mines.

(d a) Prior to the commencement of a small surface mining operation involving not more than 10,000 cubic yards of overburden, topsoil and subsoil, and ten acres of affected land in any one year, an application shall be submitted to the Administrator in duplicate on forms supplied by the Division. Each application shall contain: the information as set out in this Chapter and in a format as required by the Administrator.

Section 2. Adjudication Information.

(a i) Each application for a small mine permit shall include the following: All information required in W.S. § 35-11-406(a) except:

(i) The name and address of the applicant, and, if the applicant is a partnership, association, or corporation, the names and addresses of all managers, partners and executives directly responsible for operations in this state;

(ii) A sworn statement that the applicant has the right and power by legal

estate owned to mine from the land for which the permit is desired;

(iii) A sworn statement that the applicant has not forfeited a bond posted for reclamation purposes and that all statements contained in the permit application are true and correct to the best knowledge of the applicant;

(iv) The names and last known addresses of the owners of record of the surface and mineral rights on the land to be covered by the proposed permit. If more than one landowner is included, then a map shall be provided to illustrate land ownership;

(v) The names and last known addresses of the owners of record of the surface rights on the lands adjacent to the proposed permit area . Adjacent means all lands within one-half mile of the proposed permit area. If more than one landowner is included, then a map shall be provided to illustrate land ownership;

(vi) An instrument of consent from the surface landowner , if different from the owner of the mineral estate, to the proposed mining and reclamation plan. If surface owner consent cannot be obtained, the options contained in W.S. § 35-11-406(b)(xii) shall apply;

(vii) An identification of the lands to be included in the permit area to include:

(A) W.S. § 35-11-406(a)(vi)(A) is modified to require the location A legal description of the proposed permit area by legal subdivision, section, township and range. If there is no other survey, the permit area or any portion thereof cannot be properly described using legal subdivisions then the permit area shall be described give the location by protracted survey and map; or metes and bounds description, which shall be accompanied by a map prepared by a licensed surveyor; claim number and mining district.

(B) The name, if any, by which such lands or any part thereof are known;

(C) The total number of acres in the area covered by the permit application and the approximate number of acres to be affected by the proposed operation; and

(D B) W.S. § 35-11-406(a)(vi)(D) is suspended. The nearest town, village or city.

(viii) A United States Geological Survey topographic map at a scale of 1:24,000 if available, or an equivalent map, clearly identifying the boundaries of the proposed permit area, including access roads, and illustrating the surrounding area at least one-half (1/2) mile in all directions from the permit area;

~~(ix D) W.S. § 35-11-406(a)(ix) is modified to require only: A map at an appropriate scale showing the boundaries of the permit area and the lands to be affected, and including the following features within and adjacent to the permit area:~~

~~(I) A map based upon public records showing the boundaries of the land to be affected.~~

~~(A II) The names of Any surface waters, including lakes, ponds, streams, springs, canals, drainages, irrigation ditches and water courses within and adjacent to the proposed permit area;:~~

~~(B III) Water wells on and within one-half mile of the permit area shall be located on a map where if the maximum expected depth of disturbance the mine pit is within 20 feet of or below the water table;:~~

(C) Buildings, structures and dwellings;

(D) Roads, railroads, public or private rights-of-way or easements, utility lines, oil wells and gas wells; and

~~(E IV) A map to show An outline of all areas previously disturbed by surface or underground mining or which will be affected by future underground mining as a guide to potential subsidence problems.~~

(x) The mineral or minerals to be mined;

(xi) The estimated dates of commencement and termination of the proposed permit operation;

(xii) A written statement from the appropriate city and/or county agency documenting that the proposed mining operation does not conflict with existing city regulations/ordinances or county zoning/planning provisions;

(xiii) If the proposed operation will affect any lands within 300 feet of any existing occupied dwelling, home, public building, school, church, community or institutional building, park or cemetery, the written consent of the appropriate landowner shall be provided; and

(xiv) A filing fee of one hundred dollars (\$100.00) plus ten dollars (\$10.00) for each acre in the requested permit, but the maximum fee for any single permit shall not exceed two thousand dollars (\$2,000.00). The permit is amendable without public notice or hearing if the area sought to be included by amendment does not exceed twenty percent (20%) of the total permit acreage, is contiguous to the permit area and if the applicant

includes all of the information necessary in the amendment application that is required in this section including a mining and reclamation plan acceptable to the Administrator. The fee for a permit amendment shall be two hundred dollars (\$200) plus ten dollars (\$10.00) for each acre not to exceed two thousand dollars (\$2,000).

(b) Notification and publication requirements. Upon written notification by the Division that the application is complete, the following procedure shall be followed: The procedures contained in W.S. § 35-11-406(d) through (m) and (o) and (p) shall apply.

(i) W.S. § 35-11-406(d) shall be met.

(ii) All requirements of W.S. § 35-11-406(j) shall be met except the applicant shall cause notice of the application to be published once a week for only two consecutive weeks in a newspaper of general circulation in the location of the proposed operation.

(e) All requirements of W.S. § 35-11-406(k) shall be met.

(c) The applicant shall post a reclamation bond in the amount and in a form acceptable to the Administrator prior to approval of the small mine permit application.

Section 3. Environmental Baseline Information.

(a) W.S. § 35-11-406(a)(vii) is modified to require only The permit application shall include a general description of the land within the permit area, which shall include the following information:

(i) A description of the present land use(s) within the permit boundary including a map at the same scale as the postmining map showing the contours of the proposed permit area and the surrounding lands;.

(ii) A map of vegetation types, range sites or ecological response units and a range site-range condition survey, or equivalent, on the proposed permit area, including along with a list of species and a ranking of their relative abundance in each vegetation type. The applicant is encouraged to shall submit labeled photographs to demonstrate each vegetation type and to document areas of sparse vegetation and any areas containing noxious weeds. Locations photographed should shall be shown on the vegetation map;.

(iii) A description of any surface waters within the proposed permit area including estimated average flow rates, storage volume of any reservoirs and associated water rights within the permit area of any stream, reservoir, or lake. Depth to the groundwater within the mine area shall be stated, including a description of how the groundwater depth was determined; indicated.

(iv) A soil map which identifies the soil types, sampling locations, and proposed salvage depths;

(v) A report describing the soil types and their suitability for reclamation and depths and volume of suitable topsoil present on the proposed affected lands. Also, a description of the subsoil and/or overburden material existing between the topsoil and mineral seams;:

(vi) The applicant shall consult with both the Wyoming Game and Fish Department and the U.S. Fish and Wildlife Service prior to submission of the permit application and shall address their recommendations relative to wildlife surveys, monitoring and mitigation in the mine permit application as required by State and Federal law. Copies of all correspondence to and from these agencies shall be included in the permit application. The Administrator shall also consult with both wildlife agencies during the review of the mine permit application to insure that their recommendations are addressed to the extent that they are within the scope of the Act; and

(vii) A copy of the appropriate National Wetlands Inventory Map with the permit area and disturbance boundary delineated. If potential wetlands exist that will be disturbed or impacted by mine related activity, then the applicant shall perform a wetland delineation according to Army Corps of Engineers accepted procedures. If the proposed operation will avoid any impact to the potential wetland, either through direct disturbance or by affecting the watershed, then this should be clearly stated in the mine plan.

Section 4. Mine Operations Plan.

(a) The application shall include a mining plan which shall include the following information:

(i) In addition to Aa description of the nature and scope of the proposed operation, including roads to be constructed, mining technique, equipment, and method of operation to be used, and a projected schedule for the operation each operator shall supply all information required in W.S. § 35-11-406(b) except:;

(ii) W.S. § 35-11-406(b)(v) is modified to require only a A map showing the location of all activities associated with the operation including roads, mine pit areas, out-of-pit spoil piles, waste water ponds, temporary drainage diversions, settling ponds, stockpiles for topsoil, overburden, ore, product and waste, plant site and other processing facilities;:

(iii) Typical cross sections as appropriate to illustrate the proposed mine area, oriented perpendicular to each other and showing the natural ground surface elevation, top and bottom of the mineral seam, the maximum expected depth of mining and the approximate elevation of the groundwater table;

(iv F) W.S. § 35-11-406(b)(viii) is modified to require only a A description of how topsoil and subsoil will be salvaged, stockpiled, and replaced during conserved for reclamation, including an estimate of the depth and volume of topsoil and subsoil to be salvaged on an annual basis.;

(v) A plan for ensuring that all acid forming, or toxic material, or materials constituting a fire, health or safety hazard uncovered during or created by the mining process are promptly treated or disposed of during the mining process in a manner designed to prevent pollution of surface or subsurface water or threats to human or animal health and safety. Such method may include, but not limited to covering, burying, impounding or otherwise containing or disposing of the acid, toxic, radioactive or otherwise dangerous material;

(vi) A description of all waste materials that may be generated by the operation and plans for their storage and disposal. Only waste materials classified as Clean Fill shall be disposed within the mine permit area. Written permission from the landowner shall be required. Clean fill, for the purposes of this Chapter, means only uncontaminated natural soil materials, rock, hardened asphalt rubble, brick and concrete rubble with no protruding rebar. All other waste materials shall be taken off-site for disposal at an authorized disposal site;

(vii) The procedures proposed to avoid constituting a public nuisance, endangering the public safety, human or animal life, property, wildlife and plant life in or adjacent to the permit area. The plan shall include fencing as necessary to prevent unauthorized access of persons, livestock or wildlife and to protect the surface owner's ongoing operations; and

(viii) The methods of diverting surface water around the affected lands where necessary to effectively control pollution or unnecessary erosion.

Section 5. Reclamation Plan.

(a) The application shall include a reclamation plan describing the proposed future land use or uses and a plan whereby the applicant will reclaim all of the affected lands to the proposed future use or uses. The reclamation plan shall include the following:

(i) A statement of the proposed uses of the land by the landowner after reclamation;

(ii A) W.S. § 35-11-406(b)(ii) is modified to also Plans for grading and contouring suitable for the proposed land uses after reclamation, which shall include statements as to the maximum slope that will be created and a plan to reestablish the original surface drainage;

(iii E) W.S. § 35-11-406(b)(vii) is modified to allow A postmine contour map at an appropriate scale showing the proposed contours of the affected area after completion of proposed reclamation. ¶The Administrator to may waive this requirement if requested by the applicant operator and the degree of surface disturbance is small. Typical cross sections oriented perpendicular to each other shall be provided to show the original natural ground surface, the maximum depth of mining, the maximum horizontal extent of mining, and the proposed reclamation surfaces and slopes;

(iv) The methods of reclamation for effective control of erosion, siltation and pollution of affected stream channels and stream banks by the mining operations;

(v) If the reclamation plan proposes a permanent water impoundment, the applicant must provide the following information:

(I) The applicant shall consult with and comply with all applicable requirements of the Wyoming State Engineer's Office. Copies of correspondence and any permit from the State Engineer shall be provided;

(II) Plans demonstrating that the impoundment has been designed to insure permanent stability and that the slopes and contouring will prevent safety hazards and allow for safe access for all water users, including livestock and wildlife;

(III) Documentation that the size of the impoundment and the expected quantity and quality of water will be suitable for the proposed uses. If the applicant is unable to demonstrate to the satisfaction of the Administrator that the water quantity and quality will be suitable for the proposed use, the applicant shall provide an alternate plan; and

(IV) The applicant may be required to monitor the water in the impoundment following construction to demonstrate that the quantity and quality are suitable for the proposed uses.

(vi) Plans for topsoil replacement and seedbed preparation, including the depth of subsoil and topsoil to be applied and the methods for preparing a proper seedbed;

(vii B) W.S. § 35-11-406(b)(iii) is modified to Species to be seeded, seeding rates, seeding methods, description of any other revegetation treatments to be employed, also include a description of the methods and a schedule of for seedbed preparation and seeding, the amounts of plants to be used, and protective measures against grazing animals.;

(viii C) W.S. § 35-11-406(b)(iv) is suspended. Method of disposal of all buildings and structures erected or utilized for the operation and description of any buildings and structures that will be left in place at the request of the surface owner;

(G) W.S. § 35-11-406(b)(x) is suspended.

(ix) A projected timetable for accomplishment of the reclamation plan; and

(x) An itemized estimate of the cost to reclaim all lands to be affected during the first 12 months of operation.

Section 6. Evaluation of Revegetation Success.

Revegetation success shall be evaluated by the Administrator utilizing qualitative methods, no sooner than the fifth growing season following completion of reclamation. In consultation with the landowner revegetation shall be deemed successful when: 1) the established vegetation species are self-renewing; 2) the total vegetative cover of perennial species, excluding noxious weeds, and any species in the approved seed mix is at least equal to the total vegetative cover of perennial species, excluding noxious weeds, on the area before mining; and 3) the species diversity and composition are suitable for the approved postmining land uses.

Section 27. Conversion of Small Mine Permit to Standard Regular Mine Permit.

(a) If an operator, holding a valid mining permit under W.S. § 35-11-401(j) for a small mining operation, intends to expand his operation within the approved permit area to remove more than 10,000 cubic yards of overburden, topsoil and subsoil, per year or affect more than ten acres of land per year, the operator shall submit an application for a permit revision and obtain approval for the expansion prior to the time when he intends to exceed the established limits. The application shall include the following information:

(i) Application on forms supplied by the Division,

(ii) Revised mining and reclamation plans and schedules,

(iii) Revised maps, in such detail as required by the Administrator,

(iv) Updated environmental baseline information in such detail as required by the Administrator,

(v) and A an appropriate reclamation bond. to the Land Quality Division.

(b) The provisions of W.S. § 35-11-406(d), (j) and (k) will be required. Any public hearing shall apply only to the request of the operator to expand his operation, and the valid small mining permit already held by the operator will not be affected.

DEPARTMENT OF ENVIRONMENTAL QUALITY

LAND QUALITY DIVISION

NONCOAL RULES AND REGULATIONS

CHAPTER 10

LIMITED MINING OPERATIONS

FOR TEN ACRES OR LESS OF AFFECTED LAND

Section 1. Commencement.

(a) Prior to the commencement of surface mining operations for the removal of sand, gravel, scoria, limestone, dolomite, shale, ballast, or feldspar from an area of ten acres or less of affected land, a notification shall be submitted by the operator to the Administrator on forms supplied by the Division and shall contain the following:

(i) The name, address, and telephone number of the operator.

(ii) The written consent for the operation from the surface owner and surface lessee, if any, of the land to be affected.

(iii) The location of the area of the operation by legal subdivision, section, township, and range. If there is no other survey, the location by protracted survey, metes and bounds, or claims.

(iv) The mineral to be mined.

(v) The proposed commencement and completion dates of the operation.

(vi) A USGS topographic map:

(A) Each notification (Form 10) must be accompanied by an original quadrangle map (photo copies or other similar copies are not acceptable unless prior approval is obtained from the Land Quality Division).

(B) The following information shall be shown on the quadrangle map:

(I) A legal description of the ten acres or less of land to be affected.

(II) If any previous mining has taken place, or is taking place, within the ten acres or less to be affected, show the location and identity of this mining as an existing mining operation.

(III) Show any existing or proposed access or haul roads into, or away from the proposed mining operation. Any roads to be constructed or upgraded by the operator shall be included as part of the ten-acre operation from that point that they provide exclusive service and shall be covered by a reclamation bond.

(vii) The operator shall provide a description of the proposed mining operation. This description shall include:

- (A) Number of acres to be affected.
- (B) Maximum depth to which mining will occur.
- (C) Depth to groundwater where known.
- (D) Brief description of the mining operation(s) and methods.
- (E) The premining and proposed postmining land use.

(viii) A sworn statement that all information contained in the notification is true and correct to the best knowledge of the operator.

Section 2. Bond.

The operator shall file a bond pursuant to W.S. § 35-11-401(e)(vii).

Section 3. Annual Reports.

The operator shall file annual reports pursuant to W.S. § 35-11-401(k).

Section 4. Operation.

(a) A sign shall be posted and maintained at the entrance of the operation that, at a minimum, clearly shows:

- (i) The name, address, and telephone number of the operator;
- (ii) The name of the operator's local authorized agent; and
- (iii) The LQD limited mining operation number.

(b) All topsoil from affected lands shall be saved and stockpiled in such a manner to minimize wind and water erosion. Such stockpiles shall be clearly identified by a sign.

(c) In no case shall any materials be pushed or dumped over natural escarpments.

Section 5. Reclamation.

(a) After the mining operations have ceased or within 30 days after the abandonment of the mining operation, the operator shall notify the Administrator of such fact and commence reclamation and restoration. Provided however, that immediate reclamation will not be required if the landowner advises the Department in writing of his intent to further utilize the product of the mine, and if he assumes the obligation of reclamation and furnishes an appropriate bond to the Administrator.

(i) The operation will be considered to be abandoned if any of the following occur:

(A) The individual, partnership, or corporation conducting the operation goes out of business.

(B) No further mining or reclamation work has been done from one annual report to the next.

(C) The mineral being mined has been exhausted.

(D) The period of time for which the surface owner (or lessee) gave permission has expired and a written extension has not been obtained.

(b) The reclamation of the affected lands shall be in accordance with the following:

(i) Reclamation shall be consistent with the proposed postmining land use.

(ii) On commencement of reclamation the topsoil shall be redistributed evenly over the affected area.

(iii) The affected land shall be reclaimed using sound agricultural practices. Surface preparation of affected areas to be seeded, seed types, amounts, methods of seeding and time shall be subjected to approval by the Division prior to seeding.

(iv) Mulching and/or fertilization may be required at the Administrator's discretion to ensure revegetation.

(v) Petroleum wastes and other toxic materials shall be disposed of by methods which ensure that topsoil, vegetation, surface water and groundwater are not contaminated.

(vi) For soft rock operations, final slopes shall be gentle enough to allow for contour seeding and final topography shall be approved by the Division, provided that the final slope shall not be greater than a ratio of 3:1.

(vii) For hard rock operations, whenever possible, the highwall shall be reduced to no greater than a 3:1 slope. The operator must demonstrate the stability of any steeper slope or of any remaining highwall, so that the reclaimed area is left in a condition so as not to create a potential erosion problem or safety hazard to the public or wildlife. Slopes, including any remaining highwall, shall be modified to blend as much as possible to the native landscape.

Section 6. Transfers and Other Authorized Operators

(a) The right to operate under a limited mining exemption may be transferred to a new operator with written approval of the existing operator and written acceptance by the Administrator, provided the new operator submits a new Form 10 and bond required for the new operation and assumes the reclamation liability of the existing operator and does not violate the limitations provided in Section 8 below.

(b) ~~The operator may allow contractors to operate within its limited mining area provided notice is given to the Division and the contractor meets the other requirements of the Division, including the filing of Form 10.~~

Section 7. Release of Bonds and Forfeiture of Bonds.

Bond release. Forfeiture and cancellation shall be handled as provided in W.S. §§ 35-11-417 through 35-11-424.

Section 8. Limitation of Operations.

(a) The operator will not be allowed to:

(i) Conduct more than one operation under W.S. § 35-11-401(e)(vi) within adjacent areas when the operations are to mine the same minerals, or

(ii) Conduct nearby more than one operations of ten acres or less within any six-mile radius when the two operations are to mine the same mineral, so as to circumvent the general requirements of the Environmental Quality Act. The Administrator may allow two operations for the same mineral within the six-mile radius if one of the

operations has completed reclamation work and is awaiting bond release. Complete reclamation for the purposes of this section means backfilling, grading, topsoil application and final seeding activities have been completed.

DEPARTMENT OF ENVIRONMENTAL QUALITY

LAND QUALITY DIVISION

NONCOAL RULES AND REGULATIONS

CHAPTER 8

EXPLORATION BY DRILLING

Section 1. Conducting Exploration by Drilling.

(a) Any discoverer conducting exploration by drilling within this State, shall do so in strict compliance with all the provisions of W.S. § 35-11-404 (2007) and this Chapter. The requirements of this Chapter shall apply to exploration drilling within permitted mine operations.

(b) Prior to conducting any exploration by drilling outside of a permitted mine operation, the discoverer shall provide notification (Drilling Notification) and a reclamation bond acceptable to the Administrator. Construction of water wells outside of a permitted mine operation may be authorized under a drilling notification in accordance with Section 7 and in compliance with applicable requirements of the Wyoming State Engineer's Office. The Drilling Notification shall be in a form as specified by the Administrator and shall include information describing the approximate number and depth of holes to be drilled and a map showing approximate hole locations within the exploration area. The Administrator shall review the notification and the bond and notify the discoverer in a timely manner not to exceed 60 days from receipt whether the drilling is approved or additional information is required.

Section 2. General Drill Hole Abandonment Requirements.

(a) All drill holes sunk for the purpose of conducting exploration by drilling, including those drilled within a permitted mine operation, shall be capped, sealed or plugged in the manner described hereinafter.

(b) Drill holes that have artesian flow of groundwater to the surface shall be plugged with cement-based sealant material, as specified and in the manner described below, to prevent fluid communication and adverse changes in water quality or quantity.

(c) Drill holes that have encountered any ground water or saturated stratum shall

be sealed utilizing sealant materials and emplacement methods as prescribed hereinafter to prevent fluid communication and adverse changes in water quality or quantity.

(d) "Sealant materials" are materials that are stable, have low permeability and possesses minimum shrinking properties such that they are optimal sealing materials for well plugging and drill hole abandonment. Sealant materials shall be either: 1) a fluid mixture of water plus a cement-based or bentonite-based material, or 2) a dry bentonite-based material, either chips or pellets specifically designed for sealing drill holes. Sealant materials shall meet the technical requirements for making a proper seal, shall meet applicable recognized industry standards-and shall be prepared according to manufacturer's directions for specific site requirements. The following are approved sealant materials:

(i) Neat Cement Slurry must consist of a mixture of Portland Cement and not more than 6 gallons of clean water per bag (1 cubic foot or 94 pounds) of cement;

(ii) Sand Cement Slurry must consist of a mixture of Portland Cement, sand, and water in the proportion of not more than 1 part by weight of sand to 1 part of cement with not more than 6 gallons of clean water per bag of cement (1 cubic foot or 94 pounds);

(iii) Concrete Slurry must consist of a mixture of Portland Cement, sand and gravel aggregate, and water in the proportion of not more than 1 part by weight of aggregate to 1 part of cement with not more than 6 gallons of clean water per bag of cement;

(iv) Cement/Bentonite Slurry must consist of a mixture of cement and bentonite in the proportion of not more than 6.5 gallons of water and 3 to 5 pounds of powdered bentonite per 94-pound sack of Portland cement;

(v) High Solids Bentonite Slurry means an inorganic mixture with a slurry density of 9.4 lbs./gal. minimum (20%) by weight of solids bentonite, with polymers, water, or other additives for the yield/rate control, which forms a low permeability seal (not greater than 1×10^{-7} cm/sec), and is mixed to the manufacturer's specifications; and

(vi) Nonslurry Bentonite must consist of chipped or pelletized bentonite varieties specifically designed to be used to seal drill holes.

(vii) Abandonment Gel means a mixture of bentonite with polymers and other additives and water in the proportion of one (1) barrel of water to 15 pounds of abandonment material with a minimum slurry density of 8.6 lbs./ gal. Abandonment Gel used to seal boreholes shall meet the following specifications when using American Petroleum Institute Standard Procedures for Testing Drilling Fluids:

(A) Ten minute gel strength of at least 20 lbs. / 100 sq. ft.

- (B) Filtrate volume not to exceed 13.5 cc.
- (C) Minimum Marsh Funnel viscosity of 60 sec. / quart.

(e) Sealant materials shall be emplaced in a manner that provides a water tight seal utilizing one of the following approved methods:

(i) By placing sealant materials by drill pipe, tremie pipe, or similar device in an upward direction from the bottom of the drill hole to within approximately five (5) feet of the ground surface; or

(ii) By placing nonslurry bentonite from the bottom of the drill hole to within approximately five (5) feet of the ground surface. Nonslurry bentonite shall not be utilized unless the drill hole is four inches or greater in diameter and less than 500 feet in depth and the material must be placed in such a manner that a bridge does not occur. Nonslurry bentonite may not be placed in more than 300 feet of standing liquid.

(f) For any hole that has been sealed with a sealant material, the discoverer responsible for sealing the drill hole shall:

(i) Measure the depth of the top of the sealant material column with the appropriate equipment after sufficient time (minimum 24 hours) has been allowed for the column of sealant material to set up; and

(ii) If the column of sealant material has dropped or fallen back, the discoverer shall continue to install sealant material until the top of the sealant material column remains at least 50 feet above the top of the uppermost saturated groundwater stratum; and

(iii) Install uncontaminated fill material, drill cuttings or one of the approved sealant materials listed herein from the top of the sealant material column to within approximately 5 feet of the ground surface.

(g) If a hole is drilled without the use of drilling fluids and the bottom of the hole is above the preexisting natural elevation of the uppermost saturated groundwater stratum, the drill hole shall be abandoned by completely backfilling from the bottom of the drill hole to the surface with uncontaminated earthen material or drill cuttings or approved grout materials described herein. When using uncontaminated earthen material or drill cuttings as a backfill material, this material should be emplaced in a manner to promote settling and compaction and to minimize voids caused by bridging. If the drill hole is backfilled to the natural ground surface with dry nonslurry materials then no surface cap is necessary.

(h) All drill holes shall be backfilled to the surface with dry nonslurry materials or capped with a concrete cap set at least 2 feet below the ground surface and then backfilled to

the surface with native earthen materials to ensure the safety of people, livestock, wildlife, and machinery in the area.

(i) Drill holes shall be capped or backfilled immediately after drilling and probing in accordance with W.S. 35-11-404(h). If it is necessary to temporarily delay the abandonment or keep the drill hole open for any reason, the drill hole must be securely covered with a temporary cap in a manner which will prevent injury to persons or animals. Drill holes shall not be left open for more than 30 days without specific authorization from the Administrator.

(j) For inspection and verification purposes, each drill hole shall be marked with a temporary marker that clearly identifies the name of the discoverer and the hole number until bond release is authorized. Holes shall not be marked with rebar, metal pipe or metal posts which could pose a hazard to people, livestock, wildlife or equipment.

(k) The Administrator may approve other drill hole abandonment procedures, and/or sealant materials, at the request of the discoverer.

Section 3. Reclamation of Drill Sites and Affected Lands.

(a) Drill sites and associated Light-use roads, as defined in Chapter 1, shall be restored as nearly as possible to their original condition.

(b) All drilling fluids, drill cuttings and geologic samples shall be confined and buried below grade to the extent possible. Excess drilling mud and drill cuttings or any acid-forming or toxic materials uncovered during or created by exploration by drilling, including petroleum contaminated soils, shall be properly disposed of so as not to constitute a fire, health, or safety hazard during or after the exploration by drilling.

(c) To the extent possible, any surface preparation of the drill site shall be accomplished in a manner consistent with Chapter 3, Section 2(b), Land Quality Noncoal Rules and Regulations.

(d) To the extent possible, topsoil removal and stockpiling shall precede any excavation within the drill site and associated light-use roads in a manner consistent with Chapter 3, Section 2(c) and 2(i), Land Quality Noncoal Rules and Regulations.

(e) To the extent possible, the discoverer shall reestablish the vegetative cover where vegetation has been removed or destroyed within the drill site and associated light-use roads by seeding, planting, transplanting, or by other adequate methods in a manner consistent with Chapter 3, Section 2(d) and 2(i), Land Quality Noncoal Rules and Regulations.

(f) All lands, including access roads or terrain damaged in gaining access to or

clearing the site, or lands whose natural state has been substantially disturbed as a result of the exploration by drilling, shall be restored as nearly as possible to their original condition, including reseeding if grass or other crop was destroyed.

Section 4. Bond.

(a) In order to assure and secure performance of the discoverer's obligations, each discoverer shall agree to post a bond for each exploration area. The amount of the bond shall be computed in accordance with established engineering principles, for accomplishing proper drill hole abandonment and surface restoration in accordance with the standards set out in this Chapter.

(b) The bond amount for any drill holes or any portion of the exploration area may be reduced when the discoverer demonstrates to the satisfaction of the Administrator that drill hole abandonment has been accomplished in accordance with the standards set out in this Chapter. The amount by which the bond is reduced may be returned to the discoverer or applied towards additional drilling. The bond for any drill sites or any portion of the exploration area may be released when reclamation has been completed and the Administrator finds that vegetation has been re-established.

(c) The Administrator may accept the bond of the discoverer itself without separate surety when the discoverer demonstrates to the satisfaction of the Administrator substantial compliance with the applicable provisions of Chapter 6, Land Quality Noncoal Rules and Regulations.

Section 5. Termination and Report of Operations.

(a) Within 12 months after the completion and proper abandonment of any exploration drill hole, the discoverer shall comply with the reporting requirements of W.S. § 35-11-404(e) or (f). The report shall be in a form as specified by the Administrator. After receipt of such report, the Administrator shall have one year to inspect and evaluate the abandoned drill holes, drill sites, and access routes and make a determination of whether to release the bond to the discoverer, require additional reclamation, or institute forfeiture proceedings. The abandoned drill hole reports shall be held as confidential for a period of five years from the date of filing. The period may be extended for additional five (5) year periods upon request of the person filing the report.

(b) Forfeiture proceedings and release of bonds shall be according to the procedure set forth in W.S. §§ 35-11-421 through 35-11-423; substituting therein "discoverer" for "operator;" "surface restoration" for "reclamation," and "exploration by drilling" for "surface mining."

(c) Failure to so inspect and evaluate abandoned drill holes shall constitute a decision by the Administrator that the discoverer has complied with this Chapter for release

of bond purposes only. This one year limitation shall not be construed to alter or affect W.S. § 35-11-404(k)-(n), or any other rights of action against the discoverer granted pursuant to the statutory provisions of the Wyoming Environmental Quality Act.

Section 6. Exceptions.

Sections 2 and 3 of this Chapter, relating to drill hole abandonment and site reclamation, shall not apply to holes drilled in conjunction with open-pit development within an existing permitted surface mine operation that are within 500 feet of the active pit and are projected to be mined through within 12 months of drilling. This Chapter shall not apply to holes drilled for the purpose of conducting oil and gas exploration operations. Specific exceptions from certain requirements of this Chapter shall also be preserved in accordance with W.S. § 35-11-404(g) and (h).

Section 7. Installation of Wells for Collection of Baseline Information.

(a) Construction of wells may be authorized by the Administrator under a Drilling Notification for the purpose of collecting ground water baseline data in preparation of a mine permit application.

(b) Prior to installation, the discoverer is encouraged, but not required, to submit a plan for review by the Administrator that describes the location and completion details of each proposed well. The Administrator shall review the plan and respond within 30 days.

(c) Wells shall be permitted in accordance with requirements of the State Engineer's Office, in accordance with W.S. 35-11-404 (c)(iv).

(d) Wells shall be constructed according to the standards contained in Chapter 11, Sections 6(b), 6(c), 6(d), 6(e), and 6(f), Land Quality Noncoal Rules and Regulations.

(e) Provisions shall be made such that each well is secured to prevent contaminant entry.

(f) Adequate bond shall be provided to assure that all wells are properly plugged and sealed and the sites restored.

(g) Well plugging and sealing and site reclamation shall follow the procedures outlined in Sections 2 and 3. Well casing shall be cut off at least two (2) feet below ground surface and any pump and associated appurtenances removed, as applicable, before the well is plugged and sealed.

(h) Well abandonment reports shall be filed with the Administrator and the State Engineer's Office within 12 months of abandonment.

DEPARTMENT OF ENVIRONMENTAL QUALITY

LAND QUALITY DIVISION

NONCOAL RULES AND REGULATIONS

CHAPTER 9

PERMIT APPLICATION REQUIREMENTS FOR SMALL MINING OPERATIONS

Section 1. General.

(a) Small mine operations are defined pursuant to W.S. § 35-11-401(j) as surface mining operations that remove no more than 10,000 cubic yards of overburden, topsoil and subsoil, and disturb no more than 10 acres of land in any one year.

(b) This Chapter sets out the information required for small mine permit applications. The requirements of Chapter 2, Regular Mine Permit Applications, shall not apply to small mine operations. The requirements of Chapter 3, Environmental Protection Performance Standards, shall apply to small mine operations, except as specifically noted herein.

(c) The Administrator shall not accept or approve small mine permit applications for coal mines, uranium mines, underground mines or in-situ mines.

(d) Prior to the commencement of a small surface mining operation involving not more than 10,000 cubic yards of overburden, topsoil and subsoil, and ten acres of affected land in any one year, an application shall be submitted to the Administrator in duplicate on forms supplied by the Division. Each application shall contain the information as set out in this Chapter and in a format as required by the Administrator.

Section 2. Adjudication Information.

(a) Each application for a small mine permit shall include the following:

(i) The name and address of the applicant, and, if the applicant is a partnership, association, or corporation, the names and addresses of all managers, partners and executives directly responsible for operations in this state;

(ii) A sworn statement that the applicant has the right and power by legal estate owned to mine from the land for which the permit is desired;

(iii) A sworn statement that the applicant has not forfeited a bond posted

for reclamation purposes and that all statements contained in the permit application are true and correct to the best knowledge of the applicant;

(iv) The names and last known addresses of the owners of record of the surface and mineral rights on the land to be covered by the proposed permit. If more than one landowner is included, then a map shall be provided to illustrate land ownership;

(v) The names and last known addresses of the owners of record of the surface rights on the lands adjacent to the proposed permit area. Adjacent means all lands within one-half mile of the proposed permit area. If more than one landowner is included, then a map shall be provided to illustrate land ownership;

(vi) An instrument of consent from the surface landowner, if different from the owner of the mineral estate, to the proposed mining and reclamation plan. If surface owner consent cannot be obtained, the options contained in W.S. § 35-11-406(b)(xii) shall apply;

(vii) An identification of the lands to be included in the permit area to include:

(A) A legal description of the proposed permit area by legal subdivision, section, township and range. If the permit area or any portion thereof cannot be properly described using legal subdivisions then the permit area shall be described by protracted survey or metes and bounds description, which shall be accompanied by a map prepared by a licensed surveyor;

(B) The name, if any, by which such lands or any part thereof are known;

(C) The total number of acres in the area covered by the permit application and the approximate number of acres to be affected by the proposed operation; and

(D) The nearest town, village or city.

(viii) A United States Geological Survey topographic map at a scale of 1:24,000 if available, or an equivalent map, clearly identifying the boundaries of the proposed permit area, including access roads, and illustrating the surrounding area at least one-half (1/2) mile in all directions from the permit area;

(ix) A map at an appropriate scale showing the boundaries of the permit area and the lands to be affected, and including the following features within and adjacent to the permit area:

(A) Any surface waters, including lakes, ponds, streams, springs, canals, drainages, irrigation ditches and water courses within and adjacent to the proposed permit area;

(B) Water wells on and within one-half mile of the permit area shall be located on a map if the maximum expected depth of the mine pit is within 20 feet of or below the water table;

(C) Buildings, structures and dwellings;

(D) Roads, railroads, public or private rights-of-way or easements, utility lines, oil wells and gas wells; and

(E) An outline of all areas previously disturbed by surface or underground mining.

(x) The mineral or minerals to be mined;

(xi) The estimated dates of commencement and termination of the proposed permit operation;

(xii) A written statement from the appropriate city and/or county agency documenting that the proposed mining operation does not conflict with existing city regulations/ordinances or county zoning/planning provisions;

(xiii) If the proposed operation will affect any lands within 300 feet of any existing occupied dwelling, home, public building, school, church, community or institutional building, park or cemetery, the written consent of the appropriate landowner shall be provided; and

(xiv) A filing fee of one hundred dollars (\$100.00) plus ten dollars (\$10.00) for each acre in the requested permit, but the maximum fee for any single permit shall not exceed two thousand dollars (\$2,000.00). The permit is amendable without public notice or hearing if the area sought to be included by amendment does not exceed twenty percent (20%) of the total permit acreage, is contiguous to the permit area and if the applicant includes all of the information necessary in the amendment application that is required in this section including a mining and reclamation plan acceptable to the Administrator. The fee for a permit amendment shall be two hundred dollars (\$200) plus ten dollars (\$10.00) for each acre not to exceed two thousand dollars (\$2,000).

(b) Notification and publication requirements. The procedures contained in W.S. § 35-11-406(d) through (m) and (o) and (p) shall apply.

(c) The applicant shall post a reclamation bond in the amount and in a form

acceptable to the Administrator prior to approval of the small mine permit application.

Section 3. Environmental Baseline Information.

(a) The permit application shall include a general description of the land within the permit area, which shall include the following information:

(i) A description of the present land use(s) within the permit boundary;

(ii) A map of vegetation types, range sites or ecological response units and a range site-range condition survey, or equivalent, on the proposed permit area, including a list of species and a ranking of their relative abundance in each vegetation type. The applicant shall submit labeled photographs to demonstrate each vegetation type and to document areas of sparse vegetation and any areas containing noxious weeds. Locations photographed shall be shown on the vegetation map;.

(iii) A description of any surface waters within the proposed permit area including estimated average flow rates, storage volume of any reservoirs and associated water rights within the permit area of any stream, reservoir, or lake. Depth to the groundwater within the mine area shall be stated, including a description of how the groundwater depth was determined;

(iv) A soil map which identifies the soil types, sampling locations, and proposed salvage depths;

(v) A report describing the soil types and their suitability for reclamation and depths and volume of suitable topsoil present on the proposed affected lands. Also, a description of the subsoil and/or overburden material existing between the topsoil and mineral seams;

(vi) The applicant shall consult with both the Wyoming Game and Fish Department and the U.S. Fish and Wildlife Service prior to submission of the permit application and shall address their recommendations relative to wildlife surveys, monitoring and mitigation in the mine permit application as required by State and Federal law. Copies of all correspondence to and from these agencies shall be included in the permit application. The Administrator shall also consult with both wildlife agencies during the review of the mine permit application to insure that their recommendations are addressed to the extent that they are within the scope of the Act; and

(vii) A copy of the appropriate National Wetlands Inventory Map with the permit area and disturbance boundary delineated. If potential wetlands exist that will be disturbed or impacted by mine related activity, then the applicant shall perform a wetland delineation according to Army Corps of Engineers accepted procedures. If the proposed operation will avoid any impact to the potential wetland, either through direct disturbance or

by affecting the watershed, then this should be clearly stated in the mine plan.

Section 4. Mine Operations Plan.

(a) The application shall include a mining plan which shall include the following information:

(i) A description of the nature and scope of the proposed operation, including roads to be constructed, mining technique, equipment, method of operation to be used, and a projected schedule for the operation;

(ii) A map showing the location of all activities associated with the operation including roads, mine pit areas, out-of-pit spoil piles, waste water ponds, temporary drainage diversions, settling ponds, stockpiles for topsoil, overburden, ore, product and waste, plant site and other processing facilities;

(iii) Typical cross sections as appropriate to illustrate the proposed mine area, oriented perpendicular to each other and showing the natural ground surface elevation, top and bottom of the mineral seam, the maximum expected depth of mining and the approximate elevation of the groundwater table;

(iv) A description of how topsoil and subsoil will be salvaged, stockpiled, and conserved for reclamation, including an estimate of the depth and volume of topsoil and subsoil to be salvaged on an annual basis;

(v) A plan for ensuring that all acid forming, or toxic material, or materials constituting a fire, health or safety hazard uncovered during or created by the mining process are promptly treated or disposed of during the mining process in a manner designed to prevent pollution of surface or subsurface water or threats to human or animal health and safety. Such method may include, but not limited to covering, burying, impounding or otherwise containing or disposing of the acid, toxic, radioactive or otherwise dangerous material;

(vi) A description of all waste materials that may be generated by the operation and plans for their storage and disposal. Only waste materials classified as Clean Fill shall be disposed within the mine permit area. Written permission from the landowner shall be required. Clean fill, for the purposes of this Chapter, means only uncontaminated natural soil materials, rock, hardened asphalt rubble, brick and concrete rubble with no protruding rebar. All other waste materials shall be taken off-site for disposal at an authorized disposal site;

(vii) The procedures proposed to avoid constituting a public nuisance, endangering the public safety, human or animal life, property, wildlife and plant life in or adjacent to the permit area. The plan shall include fencing as necessary to prevent

unauthorized access of persons, livestock or wildlife and to protect the surface owner's ongoing operations; and

(viii) The methods of diverting surface water around the affected lands where necessary to effectively control pollution or unnecessary erosion.

Section 5. Reclamation Plan.

(a) The application shall include a reclamation plan describing the proposed future land use or uses and a plan whereby the applicant will reclaim all of the affected lands to the proposed future use or uses. The reclamation plan shall include the following:

(i) A statement of the proposed uses of the land by the landowner after reclamation;

(ii) Plans for grading and contouring suitable for the proposed land uses after reclamation, which shall include statements as to the maximum slope that will be created and a plan to reestablish the surface drainage;

(iii) A postmine contour map at an appropriate scale showing the proposed contours of the affected area after completion of proposed reclamation. The Administrator may waive this requirement if requested by the applicant and the degree of surface disturbance is small. Typical cross sections oriented perpendicular to each other shall be provided to show the original natural ground surface, the maximum depth of mining, the maximum horizontal extent of mining, and the proposed reclamation surfaces and slopes;

(iv) The methods of reclamation for effective control of erosion, siltation and pollution of affected stream channels and stream banks by the mining operations;

(v) If the reclamation plan proposes a permanent water impoundment, the applicant must provide the following information:

(I) The applicant shall consult with and comply with all applicable requirements of the Wyoming State Engineer's Office. Copies of correspondence and any permit from the State Engineer shall be provided;

(II) Plans demonstrating that the impoundment has been designed to insure permanent stability and that the slopes and contouring will prevent safety hazards and allow for safe access for all water users, including livestock and wildlife;

(III) Documentation that the size of the impoundment and the expected quantity and quality of water will be suitable for the proposed uses. If the applicant is unable to demonstrate to the satisfaction of the Administrator that the water quantity and quality will be suitable for the proposed use, the applicant shall provide an alternate plan; and

(IV) The applicant may be required to monitor the water in the impoundment following construction to demonstrate that the quantity and quality are suitable for the proposed uses.

(vi) Plans for topsoil replacement and seedbed preparation, including the depth of subsoil and topsoil to be applied and the methods for preparing a proper seedbed;

(vii) Species to be seeded, seeding rates, seeding methods, description of any other revegetation treatments to be employed, a schedule for seedbed preparation and seeding and protective measures against grazing animals;

(viii) Method of disposal of all buildings and structures erected or utilized for the operation and description of any buildings and structures that will be left in place at the request of the surface owner;

(ix) A projected timetable for accomplishment of the reclamation plan; and

(x) An itemized estimate of the cost to reclaim all lands to be affected during the first 12 months of operation.

Section 6. Evaluation of Revegetation Success.

Revegetation success shall be evaluated by the Administrator utilizing qualitative methods, no sooner than the fifth growing season following completion of reclamation. In consultation with the landowner revegetation shall be deemed successful when: 1) the established vegetation species are self-renewing; 2) the total vegetative cover of perennial species, excluding noxious weeds, and any species in the approved seed mix is at least equal to the total vegetative cover of perennial species, excluding noxious weeds, on the area before mining; and 3) the species diversity and composition are suitable for the approved postmining land uses.

Section 7. Conversion of Small Mine Permit to Regular Mine Permit.

(a) If an operator, holding a valid mining permit under W.S. § 35-11-401(j) for a small mining operation, intends to expand his operation within the approved permit area to remove more than 10,000 cubic yards of overburden, topsoil and subsoil, per year or affect more than ten acres of land per year, the operator shall submit an application for a permit revision and obtain approval for the expansion prior to the time when he intends to exceed the established limits. The application shall include the following information:

(i) Application on forms supplied by the Division,

- (ii) Revised mining and reclamation plans and schedules,
 - (iii) Revised maps, in such detail as required by the Administrator,
 - (iv) Updated environmental baseline information in such detail as required by the Administrator,
 - (v) An appropriate reclamation bond.
- (b) The provisions of W.S. § 35-11-406(d), (j) and (k) will be required. Any public hearing shall apply only to the request of the operator to expand his operation, and the valid small mining permit already held by the operator will not be affected.

DEPARTMENT OF ENVIRONMENTAL QUALITY

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NONCOAL RULES AND REGULATIONS

CHAPTER 10

LIMITED MINING OPERATIONS

FOR TEN ACRES OR LESS OF AFFECTED LAND

Section 1. Commencement.

(a) Prior to the commencement of surface mining operations for the removal of sand, gravel, scoria, limestone, dolomite, shale, ballast, or feldspar from an area of ten acres or less of affected land, a notification shall be submitted by the operator to the Administrator on forms supplied by the Division and shall contain the following:

(i) The name, address, and telephone number of the operator.

(ii) The written consent for the operation from the surface owner and surface lessee, if any, of the land to be affected.

(iii) The location of the area of the operation by legal subdivision, section, township, and range. If there is no other survey, the location by protracted survey, metes and bounds, or claims.

(iv) The mineral to be mined.

(v) The proposed commencement and completion dates of the operation.

(vi) A USGS topographic map:

(A) Each notification (Form 10) must be accompanied by an original quadrangle map (photo copies or other similar copies are not acceptable unless prior approval is obtained from the Land Quality Division).

(B) The following information shall be shown on the quadrangle map:

(I) A legal description of the ten acres or less of land to be affected.

(II) If any previous mining has taken place, or is taking place, within the ten acres or less to be affected, show the location and identity of this mining as an existing mining operation.

(III) Show any existing or proposed access or haul roads into, or away from the proposed mining operation. Any roads to be constructed or upgraded by the operator shall be included as part of the ten-acre operation from that point that they provide exclusive service and shall be covered by a reclamation bond.

(vii) The operator shall provide a description of the proposed mining operation. This description shall include:

- (A) Number of acres to be affected.
- (B) Maximum depth to which mining will occur.
- (C) Depth to groundwater where known.
- (D) Brief description of the mining operation(s) and methods.
- (E) The premining and proposed postmining land use.

(viii) A sworn statement that all information contained in the notification is true and correct to the best knowledge of the operator.

Section 2. Bond.

The operator shall file a bond pursuant to W.S. § 35-11-401(e)(vii).

Section 3. Annual Reports.

The operator shall file annual reports pursuant to W.S. § 35-11-401(k).

Section 4. Operation.

(a) A sign shall be posted and maintained at the entrance of the operation that, at a minimum, clearly shows:

- (i) The name, address, and telephone number of the operator;
- (ii) The name of the operator's local authorized agent; and
- (iii) The LQD limited mining operation number.

(b) All topsoil from affected lands shall be saved and stockpiled in such a manner to minimize wind and water erosion. Such stockpiles shall be clearly identified by a sign.

(c) In no case shall any materials be pushed or dumped over natural escarpments.

Section 5. Reclamation.

(a) After the mining operations have ceased or within 30 days after the abandonment of the mining operation, the operator shall notify the Administrator of such fact and commence reclamation and restoration. Provided however, that immediate reclamation will not be required if the landowner advises the Department in writing of his intent to further utilize the product of the mine, and if he assumes the obligation of reclamation and furnishes an appropriate bond to the Administrator.

(i) The operation will be considered to be abandoned if any of the following occur:

(A) The individual, partnership, or corporation conducting the operation goes out of business.

(B) No further mining or reclamation work has been done from one annual report to the next.

(C) The mineral being mined has been exhausted.

(D) The period of time for which the surface owner (or lessee) gave permission has expired and a written extension has not been obtained.

(b) The reclamation of the affected lands shall be in accordance with the following:

(i) Reclamation shall be consistent with the proposed postmining land use.

(ii) On commencement of reclamation the topsoil shall be redistributed evenly over the affected area.

(iii) The affected land shall be reclaimed using sound agricultural practices. Surface preparation of affected areas to be seeded, seed types, amounts, methods of seeding and time shall be subjected to approval by the Division prior to seeding.

(iv) Mulching and/or fertilization may be required at the Administrator's discretion to ensure revegetation.

(v) Petroleum wastes and other toxic materials shall be disposed of by methods which ensure that topsoil, vegetation, surface water and groundwater are not contaminated.

(vi) For soft rock operations, final slopes shall be gentle enough to allow for contour seeding and final topography shall be approved by the Division, provided that the final slope shall not be greater than a ratio of 3:1.

(vii) For hard rock operations, whenever possible, the highwall shall be reduced to no greater than a 3:1 slope. The operator must demonstrate the stability of any steeper slope or of any remaining highwall, so that the reclaimed area is left in a condition so as not to create a potential erosion problem or safety hazard to the public or wildlife. Slopes, including any remaining highwall, shall be modified to blend as much as possible to the native landscape.

Section 6. Transfers

The right to operate under a limited mining exemption may be transferred to a new operator with written approval of the existing operator and written acceptance by the Administrator, provided the new operator submits a new Form 10 and bond required for the new operation and assumes the reclamation liability of the existing operator and does not violate the limitations provided in Section 8 below.

Section 7. Release of Bonds and Forfeiture of Bonds.

Bond release. Forfeiture and cancellation shall be handled as provided in W.S. §§ 35-11-417 through 35-11-424.

Section 8. Limitation of Operations.

(a) The operator will not be allowed to:

(i) Conduct more than one operation under W.S. § 35-11-401(e)(vi) within adjacent areas when the operations are to mine the same minerals, or

(ii) Conduct more than one operation of ten acres or less within any six-mile radius when the two operations are to mine the same mineral, so as to circumvent the general requirements of the Environmental Quality Act. The Administrator may allow two operations for the same mineral within the six-mile radius if one of the operations has completed reclamation work and is awaiting bond release. Complete reclamation for the purposes of this section means backfilling, grading, topsoil application and final seeding activities have been completed.

**BEFORE THE
ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING**

July 13, 2012

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| IN THE MATTER OF THE PROPOSED REVISION OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY LAND QUALITY DIVISION NONCOAL RULES AND REGULATIONS |) | LAND QUALITY DIVISION ANALYSIS OF COMMENTS |
| |) | DOCKET NO. 12- 4101 |
| |) | |

NONCOAL – Chapters 8, 9 & 10

Noncoal Rule Package – Well Abandonment, Small Mines and Limited Mining Operations

The following is an analysis of the comments received on Noncoal Rule Package, Chapters 8, 9 and 10. The Land Quality Division (LQD) received three (3) sets of comments on the proposed rules during the public comment period which ran from May 26, 2012 until July 10, 2012. Most of the substantive commentary focused on changes to Chapter 9 of the Noncoal Rules and Regulations and will be discussed separately. The Environmental Quality Council was provided with all of the comments prior to the hearing and no changes were made to the rules as proposed. All comments received are discussed in more detail below.

Wyoming Game & Fish Department

The Game and Fish Department commented that they were in favor of the proposed changes in general and did not provide any specific comments on rule language that required further revision.

Powder River Basin Resource Council (PRBRC)

CHAPTER 10 Comments – PRBRC commented generally on the proposed changes to Chapter 10 which details the requirements related to Limited Mining Operations (LMO). First PRBRC stated that LMO's should be limited to non-commercial operations, however the enabling legislation at W.S. 35-11-401(e)(vi) clearly states that these types of operations may be "commercial or noncommercial". PRBRC also stated that further clarification was needed to better define what "same mineral" means in Section 8(a)(ii) of Chapter 10. The above referenced subsection of the Environmental Quality Act references a list of minerals that may be removed in a LMO, the LQD does not believe further revision is necessary. PRBRC also questioned the limitations on multiple operations in Section 8(a)(ii). It is the LQD's position that the proposed rules clearly state that each operation requires that only one operator is allowed to conduct the mining activity covered by the LQD's authorization and that authorization procedures will be able to accurately identify those operators. Finally, PRBRC stated that the limitations on multiple

operations within a six-mile radius should be applied to small mines as well. The LQD considers the application process for small mines more detailed and inclusive and therefore this limitation is not necessary.

CHAPTER 9 Comments – PRBRC provided several comments on specific rule language proposed in Chapter 9 and the LQD’s response to these comments is provided below.

2. Chapter 9, Section 4(a)(v) A plan for ensuring that all acid forming, or toxic material, or materials constituting a fire, health or safety hazard uncovered during or created by the mining process are promptly treated or disposed of during the mining process in a manner designed to prevent pollution of surface or subsurface water or threats to human or animal health and safety. Such method may include, but not limited to covering, burying, impounding or otherwise containing or disposing of the acid, toxic, radioactive or otherwise dangerous material;

Comment – PRBRC requests that the last sentence be deleted because the methods listed may not be appropriate for some types of waste.

Response – The above language merely restates subsection W.S. 35-11-406(b)(ix) and therefore no changes are necessary.

3. Chapter 9, Section 4(a)(viii) The methods of diverting surface water around the affected lands where necessary to effectively control pollution or unnecessary erosion.

Comment – PRBRC suggested additional detail of methods of control be added.

Response – Again the rule language is restating language contained in W.S. 35-11-406(b)(xiv), and therefore the LQD does not believe any revision is necessary.

4. Chapter 9, Section 5 Reclamation Plan

(a) The application shall include a reclamation plan describing the proposed future land use or uses and a plan whereby the applicant will reclaim all of the affected lands to the proposed future use or uses. The reclamation plan shall include the following:

(i) A statement of the proposed uses of the land by the landowner after reclamation;

Comment – PRBRC questioned what mechanisms are in place to ensure complete reclamation.

Response – W.S. 35-11-103 defines “[r]eclamation” as the process of reclaiming an area of land affected by mining to use for an equal or greater value and further details further processes which may be considered during a review of an application for a permit including methods for erosion control and pollution control.

5. Chapter 9, Section 5 Reclamation Plan

(a) The application shall include a reclamation plan describing the proposed future land use or uses and a plan whereby the applicant will reclaim all of the affected lands to the proposed future use or uses. The reclamation plan shall include the following:

(iv) The methods of reclamation for effective control of erosion, siltation and pollution of affected stream channels and stream banks by the mining operations;

Comment – PRBRC suggested further revision should be added to the language above. PRBRC stated that further revision was necessary to clearly indicate the methods for controlling runoff and erosion of mine lands.

Response – The LQD believes that the review process will clearly indicate what measures are proposed to control erosion and runoff and that the statutory language provides the necessary framework to require that information.

6. Chapter 9, Section 7 Conversion of Small Mine Permit to Standard Mine

Comment – PRBRC commented that there was insufficient detail what is required to convert a small mining operation to a regular mine and suggested that specific detail be provided with in that section.

Response – The LQD would require an applicant to provide revised mine and reclamation plans and environmental data as necessary in compliance with Chapter 2 of the LQD's Noncoal Rules and Regulations so the LQD can adequately require an accurate bond amount and review the mining and reclamation plans as we would with any regular mining operation.

Bob Guirgevich – Sheridan, WY

Mr. Guirgevich provided comments on the proposed rules which requested further revision of Chapter 9. In his comments he provided suggested changes to language as well as brief discussion on the proposed language. The LQD has reviewed the suggested changes and concluded that no changes are necessary to the rules as approved by the Environmental Quality Council. Many of the comments suggest language that is intended to clarify the regulations, however it is the LQD's belief that many of the proposed changes are editorial in nature and restate statutory language in a different form. In general the LQD believes that the level of detail suggested in the comments does not allow for the flexibility which is provided for in the Environmental Quality Act. The LQD merely restated statutory language in many instances which was intended to make the chapter more readable and remove citations within the chapter.

The rules as proposed were drafted in response to Mr. Guirgevich's comments during an Advisory Board meeting the first time the rules were brought before the Advisory Board and prior to the second meeting held on the rules. The rules presented in this rule package were substantially rewritten and provide a much greater level of detail than the original draft. It is the LQD's belief that the revisions and drafts made in response to Mr. Guirgevich's original comments provide the level of detail necessary to effectively regulate small mining operations and provide the flexibility necessary to address the varying circumstances that individual operations encounter on the land.

Revegetation Success Evaluation

Both PRBRC and Mr. Guirgevich commented on the inclusion of a qualitative evaluation of revegetation success found in Chapter 9 for small mining operations. Both commenter's stated that the evaluation was too ambiguous to adequately evaluate the reclamation. The LQD believes however that it has the expertise, experience and personnel to effectively evaluate the revegetation success on reclaimed small mine operations. Additionally it should be noted that in the event that an operator or landowner disagreed with the evaluation of the reclamation further information could be gathered that required more

quantifiable data collection if necessary. It is believed that the rules as drafted provide adequate protection to the landowner and the citizens of Wyoming.

The rules as drafted require that revegetation be self-renewing, provide total vegetative cover of perennial species excluding noxious weeds to be equal or greater to the cover present before mining activities, and that the species diversity and composition are suitable for the post-mining land use. These standards provide adequate tools for the LQD to inspect and review reclamation efforts.