

**DEPARTMENT OF ENVIRONMENTAL QUALITY
LAND QUALITY DIVISION**



GUIDELINE NO. 23

**VERIFICATION AND COMPLIANCE
STANDARDS FOR PHASE 2 BOND RELEASE ON
COAL MINES**

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I. INTRODUCTION

This document is a guideline only. Its contents should not be interpreted by applicants, permittees, interested members of the public or organizations or Department of Environmental Quality, Land Quality Division (LQD) staff, or other local, state or federal governmental agency staff as mandatory. Except for specifically referenced regulations, this document has not been subject to rulemaking procedures and the contents are not to be interpreted as regulatory requirements. This guideline is based upon applicable provisions of the Wyoming Environmental Quality Act (WEQA) and LQD Coal Rules and Regulations, and it contains statements of LQD policy and statements of LQD preferred procedures.

The LQD emphasizes that preliminary meetings and exchanges of information are crucial to achieving mutual agreement on the request components and to the timely coordination and execution of all steps in the bond release process.

The Sediment Control Release and Phase 2 Partial Incremental (hereafter termed Phase 2) Bond Release process applies to Category 5 lands, i.e., lands where coal was not removed prior to May 3, 1978, or any lands and structures that were in use on or after May 3, 1978. In addition, requirements for retaining permanent postmine impoundments apply to Category 3 and Category 4 lands. Category 3 and 4 are any lands supporting operations which were not completed or substantially completed prior to July 1, 1973 and any affected lands or structures taken out of use between July 1, 1973 and May 25, 1975.

Applicable current Coal Rule & Regulations (Coal R&R):

1. Under provisions of Coal R&R Chapter 4, Section 2(f)(vi): "Sediment ponds shall be maintained until removal is authorized by the Division and the affected lands have been stabilized and initial vegetation established in accordance with the approved reclamation plan and the requirements of this Chapter. In no case shall sediment ponds treating reclaimed lands be removed sooner than two years after the last augmented seeding".
2. Under provisions of Coal R&R Chapter 15, Section 5(a)(ii)(A): "After vegetation is established whose species composition is commensurate with that of the seed mix(es) of the approved reclamation plan and the species composition required by Chapter 4, Section 2.(d)(x), the amount of bond to be released shall be determined by: The amount the Director determines must be retained for the permit area which would be sufficient for a third party to cover the cost of reestablishing vegetation so as to comply with the Act and rules and regulations promulgated thereunder."
3. Under provisions of Coal R&R Chapter 15, Section 5(a)(ii)(B)(I): "No part of the remaining bond or deposit shall be released... So long as the lands to which the release would be applicable are contributing suspended solids to streamflow or runoff outside the permit area in excess of premining concentrations of receiving waters."
4. Under provisions of Coal R&R Chapter 15, Section 5(a)(ii)(B)(III): "Where a permanent impoundment is involved, this portion (B) of the bond may be released only after any

renovation which may be required to meet the regulations and the permit has been completed and the State Engineer has approved the impoundment for its intended use.”

II. VERIFICATIONS FOR PHASE 2 BOND RELEASE

There are three Phase 2 verifications; vegetation establishment, sediment control release, and permanent impoundments. In addition to these verifications, Rough Backfill verification (RBV) and Phase 1 verifications must be approved by LQD before a request for Phase 2 bond release may be submitted through the Coal R&R Chapter 15 process. Since Coal R&R Chapter 15 is administrative, no verifications will be approved as part of a bond release request. All verifications covered in this guideline must be submitted as stand-alone documents, not as part of an annual report.

Details regarding the RBV process, including applicable performance standards are discussed in LQD Guideline 21: *Rough Backfill Verification and Area Bond for Coal Mines*. Details regarding the four verifications associated with Phase 1 are discussed in LQD Guideline 22: *Verification and Compliance Standards for Phase 1 Incremental Bond Release*.

A. Vegetation Establishment Verification

The applicant must submit a demonstration that the revegetated species composition is commensurate with that of the approved reclamation plan seed mix(es), and that species diversity and composition are suitable for the designated postmine land use.

1. A request for Vegetation Establishment Verification (VEV) is an independent submittal. The submittal should be a complete package, including a cover letter that clearly requests VEV, identifies required information, and summarizes the content of the submittal.
2. Submittal Requirements
 - a. Documentation that the area(s) being requested for VEV has experienced at least two complete growing seasons. The date of permanent seeding and the actual seed mix for each VEV unit must also be included.
 - b. Interim vegetation monitoring data or a precise reference to applicable documents previously on file with the LQD. Quantitative statistical analysis of the submitted data are not required, however, discussion of how the data shows the vegetation to be “commensurate” with the approved seed mix should be provided.
 - c. A current topographic map showing the location and areal extent of each VEV unit and identifying each unit using unique identification nomenclature. Generally, the VEV units follow the units selected for Sediment Control Release Verification (SCRV). If the identification nomenclature of the VEV unit differs from that used for reclaimed units in the Annual Report (AR), the VEV application shall provide a cross-reference for the AR.

The map should be from the approved permit; the most recent AR, or the most recent Reclamation History (e.g, the map should illustrate “as-built” topography on the reclamation units). The scale must be the same as the approved postmining topography map. The LQD strongly encourages the submission of digital/electronic spatial data such as Geographical Information System (GIS) format maps. The data format utilized must meet LQD standards for spatial data.

3. LQD personnel in conjunction with mine personnel will conduct an ocular survey to determine whether the provisions in Coal R&R Chapter 15 Section 5(a)(ii) have been met.

B. Sediment Control Release Verification

A SCRIV is a demonstration that the land is no longer contributing suspended solids to streamflow or runoff in excess of premining conditions.

1. A request for SCRIV is an independent submittal. The submittal should be a complete package, including a cover letter that clearly requests SCRIV, identifies required information, and summarizes the content of the submittal.
2. Submittal Requirements
 - a. The SCRIV application must tabulate the approved sediment control structures, including Alternative Sediment Control Measures (ASCMs), which are eligible for removal after the SCRIV application is approved. A brief narrative should accompany the application that designates each structure as either permanent or temporary and demonstrates why each structure is no longer needed for sediment control. For all structures designated as permanent, an acceptance form signed by the landowner must be provided.
 - b. A current topographic map, showing:
 - i. the location and areal extent of each SCRIV unit and identify each unit using a unique identification nomenclature. If the identification nomenclature of the SCRIV unit differs from that used for reclaimed units in the AR, the SCRIV application shall provide a cross-reference for the AR. The date(s) of permanent seeding for each SCRIV unit must also be included;
 - ii. the approved sediment control structure(s) which service each SCRIV unit and delineate the current (postmining) drainage basin for each sediment control structure;
 - iii. the respective areal extent of native land, permanently reclaimed land, and affected/unreclaimed land within each SCRIV unit, and;

- iv. if reference units are employed, identify the location of the native ground unit(s) chosen as the SCR/V reference unit(s). Alternately, if premine data are used in the calculations, the data should be supplied or specify its' location within the permit.

The map should be from the approved permit, the most recent AR, or the most recent Reclamation History (e.g, the map should illustrate "as-built" topography on the reclamation units). The scale must be the same as the approved postmining topography map. The LQD strongly encourages the submission of digital/electronic spatial data such as GIS format maps. The data format utilized must meet LQD standards for spatial data.

c. Demonstration Of Adequate Surficial Stability

- i. The SCR/V application must show that each SCR/V unit has attained the provisions of Coal R&R Chapter 15, Section 5(a)(ii)(B)(I). The LQD and permittee must agree on the demonstration method prior to submitting a SCR/V application, including documentation that all criteria for Phase 1 release have been achieved.
 - ii. Revised Universal Soil Loss Equation (RUSLE): The LQD strongly encourages use of Version 1.06 of the RUSLE erosion prediction model to demonstrate that each SCR/V unit is sufficiently stable and that it is not contributing additional sediment to runoff and streamflow outside the affected land. The SCR/V request must include a tabulation using the actual R, K, LS, C and P factors for the reclaimed unit(s). A comparison between premine (native) and postmine values must be included in the SCR/V application. The permittee must derive each factor using the standard methods specified for RUSLE in Renard et al., (1997) and expanded upon in Toy et. al., (1998). The SCR/V request must fully explain how each factor was determined for the SCR/V unit and native land. The calculations used to determine each factor must be presented in the SCR/V application. The permittee must reach agreement with the LQD District Office concerning the number and location of field sampling sites for appropriate factors. The LQD encourages clear agreement on all factors prior to submittal of the SCR/V request. The SCR/V request must also present and discuss the RUSLE output values for the SCR/V unit in comparison to native or premining values.
 - iii. Acceptable Alternative Demonstrations of Surficial Stability: LQD will work with operators who wish to use other methods to demonstrate the surficial stability of an SCR/V unit. However, any other method must satisfy the same performance standards of Coal R&R Chapter 15, Section 5(a)(ii)(B)(I). Other methods meeting the performance standards for SCR/V may include actual field measurements of sediment yield and SEDCAD modeling.
3. LQD personnel in conjunction with mine personnel will conduct an ocular survey to determine whether the provisions in Coal R&R Chapter 15 Section 5(a)(ii)(B)(I) have been met.

4. If a permittee does not request Phase 2 Bond Release, then a SCR/V approval must be obtained a *minimum* of two (2) years prior to Phase 3 Final Bond Release request.

C. Permanent Impoundment Construction/Renovation Verification

A Permanent Impoundment Verification must be obtained prior to a Phase 2 Bond Release request for category 5 lands, and at least two years prior to a Phase 3 bond release request for Categories 3, 4 and 5. All construction/renovations must be complete and a permit approved by the State Engineer's Office (SEO) for the impoundments intended use.

1. A request for Permanent Impoundment Construction/Renovation Verification (PIV) is an independent submittal. The submittal should be a complete package, including a cover letter that clearly requests PIV, identifies required information, and summarizes the content of the submittal.
2. Submittal Requirements
 - a. Provide an as-built design, including location map, which demonstrates the permanent structure has been constructed/renovated to comply with the approved permit and meets Coal R&R's.
 - b. Provide a copy of the SEO approved permit for each proposed permanent impoundment with a volume greater than one-half of an acre-foot.
 - c. Provide water quality and quantity data, as described in Guideline 17, that demonstrates the appropriateness of the structure as a permanent feature in the postmine environment.
 - d. Provide a landowner statement accepting the postmine impoundment.
3. LQD personnel in conjunction with mine personnel will conduct an ocular survey to determine whether the provisions in Coal R&R Chapter 15 Section 5(a)(ii)(B)(III) have been met.
4. If a permittee does not request Phase 2 Bond Release, then permanent postmine impoundment approval must be obtained a *minimum* of two (2) years prior to Phase 3 Bond Release request.

III. TRACKING OF VERIFICATION APPROVAL

Specific approval of all Phase 2 verifications must be stated by LQD in the approval letter.

In instances where a Phase 2 verification was processed via the AR prior to the finalization date of this document, and there is no documentation of approval supporting the verifications detailed above, the referenced AR may be revisited and handled on a case-specific basis. LQD District

Supervisors will have the discretion to require operators to submit additional Phase 2 verification information if they feel information in the referenced AR is inadequate or missing.

Approvals for all Phase 2 verifications described in this document will be tracked using:

A. Annual Report

The cumulative inventory of all areas that have achieved Phase 2 verification(s) must be included in the most current AR as a map that identifies all areas that have been previously approved for Phase 2 verification(s) using uniquely delineated polygons.

B. Stand Alone Bond Release Verification Volume

1. All individual submittal packages will be contained within the stand alone Bond Release Verification Volume with the accompanying approval letter. If Phase 2 verifications were processed via the Annual Report prior to finalizing this guideline, at a minimum a copy of the Annual Report acceptance letter stating approval of the verifications should be inserted into the Verification Volume.
2. GIS Geodatabase: Permit coordinators who wish to support Phase 2 Verifications through the use of GIS may require applicable layers from operators. The reviewer will coordinate with the operator regarding the required layers and acceptable formats of submittal.

IV. REMOVAL OF TEMPORARY SEDIMENT CONTROL MEASURES AFTER SEDIMENT CONTROL RELEASE APPROVAL

All applicable temporary sediment control structures [Ponds and ASCM's] that were approved for removal by LQD must be reclaimed a minimum of two years prior to requesting Phase 3 Bond Release with the intent of meeting the following criteria:

- A. Grading to restore drainage and blend with surrounding terrain
- B. Suitable surrounding slopes not exceeding 3(h):1(v);
- C. Suitable tie in with reclaimed or native drainage, with no visible head cuts;
- D. Replacement of topsoil if salvaged during pond construction; and,
- E. Establishment of revegetation.

V. SUBMITTING A PHASE 2 BOND RELEASE REQUEST AFTER PHASE 2 VERIFICATION APPROVAL

The Phase 2 Bond Release request should contain the following information and Operators should also reference LQD Coal R&R Chapter 15, Section 1(b).

- A. Identification of the reclaimed units by legal subdivision (section, township, range, county). The LQD suggests that the section notation include no more than a ¼ ¼ description. The LQD will accept a metes-and-bounds description of reclaimed lands.
- B. Tabulation of the number of acres.
- C. Statement of the current permit number and term designation and the date of original permit approval and date of the current term approval.
- D. The type and amount of bond, and type and portion sought to be released.
- E. A map that shows the location of the reclaimed land for which the Phase 2 release is requested. The LQD prefers that this map illustrate the postmining topography.
- F. Current Names and Addresses of all specific parties that require LQD Coal R&R notification of the bond release request. The request should contain the names and mailing addresses for the following:
 - 1. Overlying and adjoining surface owners of record [NOTE: THE LQD ADMINISTRATOR INTERPRETS ADJOINING TO MEAN OWNERS WHOSE LAND ABUT (I.E., ARE CONTIGUOUS TO) THE RECLAIMED LANDS IN THE REQUEST. SURFACE OWNERS OF RECORD INCLUDE ONLY THE PROPERTY OWNER AND/OR AUTHORIZED AGENT AND SURFACE LESSEE LIST IN COUNTY COURTHOUSE.]
 - 2. Any incorporated municipality within 5 miles of the permit area.
 - 3. The County Commissioners for the counties which encompass the reclaimed lands.
 - 4. The Wyoming Business Council (which has statutorily replaced the Economic Development and Stabilization Board).
 - 5. Each sewage treatment authority, water treatment authority and water company in the locality of the permit area. (NOTE: THE LQD ADMINISTRATOR INTERPRETS LOCALITY TO MEAN WITHIN 0.5 MILE OF THE PERMIT AREA BOUNDARY.)
- G. Provide the date(s) and approval letter copies or references for Area and Phase 1 bond releases for the land being considered for Phase 2 Incremental Bond Release. Alternatively, provide dates and approval letters for verifications required for Area and Phase 1 bond release.
- H. Provide copies of or make specific reference to the dates and location(s) of the approval letters concerning VEV, SCR, and PIV for the lands being considered for Phase 2 Incremental Bond Release.

VI. BOND RELEASE FUNDS

The amount of money to be released, assuming Phase 2 Incremental Bond Release is granted, will be calculated on a unit area basis. Sufficient funds will be retained to meet the requirements of LQD Coal R&R Chapter 15 Section 5(a)(ii). LQD Coal R&R Chapter 15, Section 1(b)(iv) requires the operator to specify the type and amount of bond, and type and portion sought to be released; the specification should contain supporting calculations. Assuming Phase 1 release was granted, which allows for release of 60% of the reclamation bond associated with a given reclamation unit, the Phase 2 release request should be for an amount equal to or less than 15% of the original reclamation bond associated with the reclamation unit in question. The amount of the request must not exceed this percentage to be in compliance with W.S. §35-11-417(e).