

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
LAND QUALITY DIVISION**



**GUIDELINE No. 21**

**AREA BOND & ROUGH BACKFILL VERIFICATION  
PROCEDURES FOR 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 the 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 (LQD Coal R&R) and it contains statements of LQD policy and statements of LQD preferred procedures.

Permittees may propose alternative methods to achieve verifications within this guideline. If permittees propose alternative methods, the LQD District staff and Permittee should achieve basic agreement that the alternative methods are acceptable.

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 release process. This document provides guidance for technical and administrative procedures associated with the Area Bond including clarification of the distinctions between Area Bond Release achieved through the Bond Release process as described in Chapter 15 of the LQD Coal R&R and Rough Backfill Verification.

The Area Bond Release and Rough Backfill Verification processes apply to Categories 3, 4, and 5. Category 3 applies to 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. Category 4 applies to lands where coal was removed prior to May 3, 1978 but do not qualify for previous categories. Category 5 applies to lands where coal was not removed prior to May 3, 1978 or lands where structures were in mining related use on or after May 3, 1978. See Guideline No. 20 for more information on land Categories.

### A. Applicable LQD Coal R&R

Topic	Citation	Verification Requirements
Rough Backfill Verification	<b>Ch.4, Sec.2(b)(iii)</b> ; All affected lands shall be returned to their approximate original contour, except as authorized by a variance or exemption under Chapter 5, Sections 6 and 7, or Chapter 8, or Chapter 9.	Verified if the constructed PMT matches approved.

### B. Definitions

LQD Coal R&R, Chapter 1, Section 2 and W.S. §35-11-103 contain definitions and terms used in this guideline.

## II. AREA BOND AND ROUGH BACKFILL AS VERIFIED IN ANNUAL REPORT

### A. Area Bond

The Area Bond calculation during the Annual Report (AR) details the costs necessary to meet the applicable rough backfilling standards in Coal R&R Chapter 4, Section 2(b), including special reconstruction techniques when specifically approved. Regulations allow for bond adjustments where the bond amount is reduced for reasons other than reclamation completed. Any reduction in the dollar amount of the Area Bond based upon a decrease of the pit void due to the completion of reclamation must be handled through bond release procedures as described in Chapter 15 of the LQD Coal R&R and Guideline No. 20.

### B. Rough Backfill Verification (RBV)

The bonding system approved by the Office of Surface Mining Reclamation and Enforcement (OSMRE) allows the Wyoming LQD to reallocate the bond amount necessary to backfill the pit from the previous year to the new pit each year. RBV includes a compliance assessment demonstrating that backfilled areas have achieved the performance measures of “rough backfilling” as defined in Coal R&R, Chapter 1, in order for the area to be released from backfilling liability.

The Permittee is required to demonstrate that the area has achieved rough backfill before the associated backfilling liability amount may be reallocated to the new pit void. In this RBV process, monies associated with backfilling liability are not “released”; they are reallocated to the advancing pit.

Through this process, the Permittees’ Area Bond calculations submitted in the AR will not include the costs to backfill areas that have demonstrated RBV and no Area Bond costs are retained for the verified and approved backfilled unit.

#### 1. Rough Backfill Verification (RBV)

The information submitted in support of RBV should make the Permittees’ case that:

- a. The reclaimed acreage has been backfilled and rough graded to the approved PMT.
- b. Drainage divides match those of the approved PMT within normal mapping tolerances.
- c. Upland reclaimed elevations are consistently within  $\pm$  twenty (20) feet of the approved PMT elevations and that the distribution of elevations is not skewed. Vertical variations in upland areas of more than  $\pm$ 20 feet to as much as one bench or 50 feet, whichever is

smaller, is allowed, provided the corresponding “Performance Measures for PMT Flexibility” are included in the permit.

d. Rough graded hill slope grades and lengths of hill slopes meet the approved permit commitments and demonstrate a complex to concave hill slope profile.

e. Rough graded valley bottoms are acceptable in slope and alignment and are concave in longitudinal profile (generally flattening in downstream direction).

f. Construction verification data demonstrating that “special commitments” in the approved permit such as aquifer containment seals and alluvial valley floors (AVF) were properly constructed.

## 2. Submittal Requirements

A request for RBV should be clearly identified within the AR cover letter. The request should include:

a. Map(s) that:

1) Present the actual “as-built” contours of the backfilled area at the same scale as the approved post mine contour map in the permit. Providing an overlay comparison of “as-built” and approved contours is very helpful.

2) Identify all areas being requested for RBV as uniquely delineated polygons.

3) Identify all areas that have previously achieved RBV as uniquely delineated polygons.

4) A copy of all applicable map layers necessary to evaluate rough backfilling adequacy may be requested in electronic format from the Permittee. The LQD staff will coordinate with the Permittee regarding the required layers and acceptable formats of submittal.

b. Construction verification data for “special commitments” in the approved permit such as aquifer containment seals, reconstructed AVF, etc.

### **III. INDEPENDENT ROUGH BACKFILL VERIFICATION**

If a Permittee does not seek RBV via the AR process, the Permittee cannot roll the bond amount over to the new pit and must cumulatively carry Area Bond costs for both the old pit and the new in the bond calculation until RBV is approved for the backfilled areas and the bond is recalculated.

An Independent RBV submittal is required to verify the constructed PMT. Criteria and submittal requirements associated with an Independent RBV are essentially the same as with

RBV via the AR as described in Section II.

The LQD will process and review the Independent RBV outside the Coal R&R Chapter 15 process and will accept or deny the verification in writing. The Permittee would subsequently list one or more RBV verifications in a formal Chapter 15 Area Bond release request.

#### **IV. TRACKING OF VERIFICATION APPROVAL**

Specific approval of RBV should be stated in the LQD approval letter for the AR. In the case of an Independent RBV application an approval letter specific to that application will be written by the LQD. In instances where RBV were processed and no approval letter exists, the act of reallocating all or portions of the Area Bond to the advancing pit will be acceptable for RBV.

RBV will be tracked using:

##### **A. Bond Release Verification Volume**

The approval letter and appropriate elements of the application with an assigned verification number will be inserted into the Bond Release Verification Volume.

##### **OR additionally**

##### **B. Geographic Information System (GIS)**

Permit coordinators and Permittees who wish to support RBV through the use of GIS may coordinate regarding layers and acceptable formats of submittal.

#### **V. AREA BOND RELEASE REQUEST VIA CHAPTER 15**

In all but a few cases there is no formal Area Bond release. One exception is when the new pit void is smaller than the old pit void and the Permittee desires to have the bond reduced rather than carry the extra bond. The other occurs at the end of mining where there is no longer a new pit to roll the bond to. In these cases, the Permittee may request Area Bond Release through a Chapter 15 Bond Release Request to reduce the Area Bond amount.

A. The LQD Administrator declares that the Coal R&R Chapter 15 process is primarily administrative in nature. A Coal R&R Chapter 15 bond release request should contain no technical data. Verifications as listed in this guideline must be approved prior to submittal of the Bond Release Request.

B. See Guideline No. 20 for more information on requirements for submitting a Chapter 15 Bond Release Request.