



Virginia  
Regulatory  
Town Hall

## Final Regulation Agency Background Document

<b>Agency Name:</b>	Virginia Department of Mines, Minerals, and Energy
<b>VAC Chapter Number:</b>	4 VAC 25-31
<b>Regulation Title:</b>	Reclamation Regulations for Mineral Mining
<b>Action Title:</b>	Final
<b>Date:</b>	December 23, 2002

Please refer to the Administrative Process Act (§ 9-6.14:9.1 *et seq.* of the *Code of Virginia*), Executive Order Twenty-Five (98), Executive Order Fifty-Eight (99) , and the *Virginia Register Form, Style and Procedure Manual* for more information and other materials required to be submitted in the final regulatory action package.

### Summary

*Please provide a brief summary of the new regulation, amendments to an existing regulation, or the regulation being repealed. There is no need to state each provision or amendment; instead give a summary of the regulatory action. If applicable, generally describe the existing regulation. Do not restate the regulation or the purpose and intent of the regulation in the summary. Rather, alert the reader to all substantive matters or changes contained in the proposed new regulation, amendments to an existing regulation, or the regulation being repealed. Please briefly and generally summarize any substantive changes made since the proposed action was published.*

The Department of Mines Minerals and Energy is proposing the final Reclamation Regulations for Mineral Mining to ensure the most beneficial development of mineral resources and to minimize the effect of mining on the environment. This regulation (4 VAC 25-31) will replace the present reclamation regulations, 4 VAC 25-30 Minerals Other Than Coal Surface Mining Regulations.

The revision is necessary because of extensive formatting changes from the present regulatory requirements. The regulation addresses general requirements, permit standards, bonding, and general performance standards for surface mineral mining, and enforcement.

The final regulation was amended since the proposed regulation was published to address public comments, eliminate duplicative or nonessential requirements, and clarify and strengthen current

requirements. In the final regulation, the definition of “permitted area” was amended to clarify the use of “boundary” on the mine application map. In the section on mineral mining plans, a change was made to address public comments concerning potential impacts to the hydrologic balance. The section regarding permit notifications was amended to remove redundant statements and the section related to overburden, refuse, spoil, and waste fills was amended to account for size, location, and the hazard potential of the fill material.

The final regulation will help to ensure that surface mineral mines are reclaimed in a manner supportive of future use.

### Statement of Final Agency Action

*Please provide a statement of the final action taken by the agency: including the date the action was taken, the name of the agency taking the action, and the title of the regulation.*

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On December 23, 2002, the Director of the Department of Mines, Minerals and Energy adopted a final regulation entitled ‘Reclamation Regulations for Mineral Mining’ (4 VAC 25-31) and repealed the Minerals Other Than Coal Surface Mining Regulations (4 VAC 25-30).

### Basis

*Please identify the state and/or federal source of legal authority to promulgate the regulation. The discussion of this statutory authority should: 1) describe its scope and the extent to which it is mandatory or discretionary; and 2) include a brief statement relating the content of the statutory authority to the specific regulation. In addition, where applicable, please describe the extent to which proposed changes exceed federal minimum requirements. Full citations of legal authority and, if available, web site addresses for locating the text of the cited authority, shall be provided. If the final text differs from that of the proposed, please state that the Office of the Attorney General has certified that the agency has the statutory authority to promulgate the final regulation and that it comports with applicable state and/or federal law.*

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The DMME derives its authority to promulgate this regulation from Sections 45.1-161.3 and 45.1-180.3 of the Code of Virginia.

Section 45.1-161.3 gives DMME the authority to promulgate regulations necessary or incidental to the performance of duties or execution of powers conferred under Title 45.1 and other relevant chapters, which regulations shall be promulgated by the Department, the Chief, or the Director, as appropriate, in accordance with the provisions of Article 2 of the Administrative Process Act.

Section 45.1-180.3, Authority of the Director; states that the authority to promulgate rules and regulations to effectuate the provisions and the policy of the mineral mining reclamation law, Chapter 16 of Title 45.1, and the authority to adopt definitions for use in interpreting this chapter are vested in the Director.

Section 45.1 of the Code of Virginia may be viewed from <http://leg1.state.va.us>.

The Office of the Attorney General has certified that the agency has the statutory authority to promulgate the final regulation and that it comports with applicable state and/or federal law.

## Purpose

*Please provide a statement explaining the need for the new or amended regulation. This statement must include the rationale or justification of the final regulatory action and detail the specific reasons it is essential to protect the health, safety or welfare of citizens. A statement of a general nature is not acceptable, particular rationales must be explicitly discussed. Please include a discussion of the goals of the proposal and the problems the proposal is intended to solve.*

The purpose of this final regulation 4 VAC 25-31, Reclamation Regulations for Mineral Mining is to replace the present regulation 4 VAC 25-30, Minerals Other Than Coal Surface Mining Regulations. The regulation is being amended and updated to address general provisions, permitting requirements, permitting renewals and exemptions, mapping, bonding and surety adjustments, roads, operation and reclamation plans, drainage and sediment control, and revegetation.

The goals of the regulation are to provide agency customers with the proper guidance and information that is necessary to operate and reclaim mineral mine sites in a manner that is safe, productive, and beneficial to the public, the environment and for future use.

The final Reclamation Regulations for Mineral Mining define mineral mining industry terms that are used in the regulation. This helps to clarify regulatory requirements.

The body of the regulation emphasizes aspects of mineral mining reclamation requirements that are necessary to safely operate and reclaim mineral mine sites. For example, by having permit data and plans and performance criteria meet standards in Chapter 18.1 of Title 45.1 of the Code of Virginia for impoundments, the final regulation addresses problems associated with substandard design practices and engineering that may lead to potential impoundment releases or hazards. In addition, the regulation references the Mineral Mine Operator's Manual guidance information that should be used to control sedimentation and drainage at mineral mine sites.

Lastly, the regulation allows the operator flexibility to use acceptable procedures that can be more efficient to the particular design of the mining operation. This will enable more efficient reclamation that will provide for safely mined property that is of beneficial future use to the citizens of the Commonwealth.

## Substance

*Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. Please note that a more detailed discussion is required under the statement of the regulatory action's detail.*

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The Reclamation Regulations for Mineral Mining 4 VAC 25-31 replace the present regulation 4 VAC 25-30, Minerals Other Than Coal Surface Mining Regulations. Substantive changes to the regulation address general provisions, permitting requirements, permitting renewals and exemptions, mapping, bonding and surety adjustments. The most substantive changes were to sections on roads, operation and reclamation plans, drainage and sediment control, and revegetation. These changes resulted from updated guidance documents that provide general industry parameters used in mineral mining operations.

Amendments to the Reclamation Regulations for Mineral Mining were necessary to address industry changes and changes in technology, eliminate duplicative or nonessential requirements, clarify and strengthen current requirements and establish new requirements. A detail of changes to each individual section is listed in the Detail of Changes.

## Issues

*Please provide a statement identifying the issues associated with the final regulatory action. The term "issues" means: 1) the advantages and disadvantages to the public of implementing the new provisions; 2) the advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please include a sentence to that effect.*

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Through the regulatory process, the DMME has consistently asked for and received input and guidance from public and industry groups as well as agencies that may be affected by the regulation of operations on mineral mine sites. The result of the wide range of feedback was a regulation that provides consistent guidance to all types of mineral mine sites through the Commonwealth. The resulting advantage to the public is mined land that is reclaimed in a manner that is protective of public safety and beneficial to continued economic development.

An advantage to the DMME and the Commonwealth is a more efficient regulation that provides appropriate guidance for the reclamation of mine lands. This results in mine property that will provide an economic benefit to the Commonwealth.

Finally, the final regulation will enhance public health and safety, provide clear guidance for the mineral mining industry, and provide a more efficient regulation of mineral mine sites.

There are no disadvantages to this final regulation.

## Statement of Changes Made Since the Proposed Stage

*Please highlight any changes, other than strictly editorial changes, made to the text of the proposed regulation since its publication.*

**4 VAC 25-31-10 Definitions.** The definitions are amended for consistency and in response to public comment.

“Fifty-year [storm] flood” means the [storm] flood magnitude expected to be equaled or exceeded on the average of once in 50 years. It may also be expressed as a probability that there is a 2.0 % chance that the [storm] flood magnitude may be equaled or exceeded in any given year.

“One-hundred year [storm] flood” means the [storm] flood magnitude expected to be equaled or exceeded on the average of once in 100 years. It may also be expressed as a probability that there is a 1.0 % chance that the [storm] flood magnitude may be equaled or exceeded in any given year.

“Permitted area” means the ~~disturbed land area and areas used for access roads and other activity in the area approved for mining~~ within the [defined] boundary shown on the application map [including all disturbed land area, and areas used for access roads and other mining related activities].

**4 VAC 25-31-130 E, Mineral mining plans.** This is amended for clarity and to be consistent with VDOT terminology. It needs to read as follows:

A copy of the Virginia Department of Transportation [land use] ~~construction~~ permit[.] for roads that [This shall apply to mine road connections] ~~connect to public roads shall be included where applicable.~~

**4 VAC 25-31-130 F, Mineral mining plans.** This has been amended in response to public comment.

F. If mining below the water table is to take place, the following conditions apply:

[1. The application shall contain an assessment of the potential for impact on the overall hydrologic balance from the proposed operations to be conducted within the permitted area.]

[2.]~~4.~~ A plan for the minimization of adverse affects on water quality or quantity shall be [prepared based on the assessment in subsection F.1 of 4 VAC 25-31-130 and included in the application] ~~submitted and approved by the Director.~~

[3.] ~~2.~~ In no case shall lakes or ponds be created if they are less than four feet deep, except when creation of wetlands is approved as part of the post-mining land use.

**4 VAC 25-31-160 B, Legal right.** Part B is amended to be consistent with the Code of Virginia, Section 45.1-181. It should read:

B. On the permit application the applicant shall disclose [any type of] ~~all past mineral surface~~ mining permits, revocations, [security deposited in lieu of bond that has been revoked or forfeited,] and bond forfeitures in Virginia or any other state with which he or any individual, corporation, [trust,] partnership, association, or other legal entity with which he has or has had control or common control.

**4 VAC 25-31-170 A, B and E, Permit notifications.** This is being amended for clarity and in response to public comment. The amended language removes redundant statements.

A. The following shall be made with a new permit application:

1. Notification to property owners within 1,000 feet of the permit boundary by certified mail. A record shall be kept of:
  - a. The names and addresses of those notified, and
  - b. The certified mail return receipts used for the notification.
2. A statement as required by Section 45.1-184.1 of the Code of Virginia to property owners that requires land owners within 1,000 feet of the permit boundary to be notified that the operator is seeking a surface mining and reclamation permit from the Department of Mines, Minerals and Energy. The statement shall also include:
  - a. Company name;
  - b. Date;
  - c. Location;
  - d. Distance and direction of nearest town or other easily identified landmark;
  - e. City or county;
  - f. Tax map identification number; and
  - g. Requirements for:
    - 1.) regrading

2.) revegetation and

3.) erosion controls of mineral mine sites

[h. A notice that informs property owners that they have 10 days from receipt of the permit notification to specify written objections or request a hearing, and that their request shall be in writing and shall be sent to the Department of Mines, Minerals and Energy, Division of Mineral Mining, P.O. Box 3727, Charlottesville, Virginia 22903, 434-951-6310.]

B. A statement that property owners within 1,000 feet of the permit boundary have 10 days from receipt of the permit notification to specify written objections or request a hearing. This request shall be in writing and shall be sent to the Department of Mines, Minerals and Energy, Division of Mineral Mining, P.O. Box 3727, Charlottesville, Virginia 22903, 434-951-6310.

C. [B]....

[D.]E. Property owners within 1000 feet of the permit boundary have ten days from receipt of the notification of proposed mining to file objections with the director. No permit will be issued until at least 15 days after receipt of the application by the division. If all persons required to receive notice have issued a statement of no objection, the permit may be issued in less than 15 days.

**4 VAC 25-31-210 D, Annual Renewal.** The section is amended in response to public comment:

If in a given year there are no substantive changes. “Substantive” is struck from the language.

**4 VAC 25-31-350 B 2, Roads.** Part B 2 is amended for clarity, striking “surface” from the paragraph. It reads as follows:

“Drainage structures shall be required in order to cross a stream channel. Such structures shall be constructed with consideration for surrounding drainage acreage and culvert size, and slope so as not to restrict the flow of the stream, i.e., the bridge or culverts shall be of adequate size to permit stream flow throughout the seasonal periods during the life of the surface permit. Temporary stream crossings for pioneer roads shall be for infrequent use, stable, only used in low flow times, and shall not contribute to sedimentation off-site.

**4 VAC 25-31-400 D, Overburden, refuse, spoil and waste fills.** This is a change in response to public comment.

D. The plans and specifications for fills shall consist of [an] a detailed engineering design report that includes engineering calculations, drawings, and specifications. , with the following

as a minimum [These shall take into account the size, location, and hazard potential of the fill and will include the following as necessary]:

**4 VAC 25-31-500 A and A 1, Water impoundments.** The following is an editorial change:

Part A needs to change that contained within the parentheses as follows:

A. Structures that impound water or sediment to a height of five feet or more above the lowest natural ground area within the impoundment and have a storage volume of 50 acre-feet or more, or impound water or sediment to a height of 20 feet or more regardless of storage volume, shall meet the following criteria (noted in Chapter 18[.1] of Title 45.1 of the Code of Virginia):

Part A 1 needs to be changed in the final column of the chart under the heading Spillway Design Flood (SDF). All references in this column to 2 PMF should have been ½ PMF or 0.5 PMF. There are a total of 7 references being corrected.

**4 VAC 25-31-520, Revegetation.** The following is an editorial change:

Disturbed land shall be stabilized as quickly as possible after it has been disturbed with a permanent protective vegetative cover. The Mineral [Mine] Mining Operator's Manual provides guidance in the revegetation of surface mined areas. Exposed areas subject to erosion on an active mining site shall be protected by a vegetative cover or by other approved methods. Simultaneous revegetation shall be incorporated into the mineral mining plan. Reclamation shall be completed on areas where mining has ceased.

## Public Comment

*Please summarize all public comment received during the public comment period and provide the agency response. If no public comment was received, please include a statement indicating that fact.*

4 VAC 25-31-10, Definitions. Several comments were received regarding the definition of “Permitted area”. Commenters felt that the definition did not distinguish between the permit boundary and areas within the permit boundary that are approved for disturbance. They recommended an alternate definition of “Permit area means all property located internal of a defined boundary as shown on the application map. All disturbed land area, areas used for access roads and other mining related activities within this boundary are to be bonded in accordance with the attached standards.” One commenter stated that while a definition of “Permitted area” is given, other related terms such as “Permit boundary”, “Disturbed area”, and “Bonded area” should be clarified or defined. We agree that the permitted area is the area approved for mining within the defined boundary shown on the application map. The land that must be included within this boundary includes all disturbed land areas, and areas used for roads and other mining related activities. The definition has been revised to state that the permitted area is the area within the defined boundary shown on the application map. The definition concludes with an explanation of the areas that must be included within the permit boundary. A definition of “Disturbed land” is included in Section 45.1-180 (b) of the Code of Virginia. Also,



section 4 VAC 25-31-220 B requires all land disturbed by mining, plus the land estimated to be disturbed in the next year to be covered by bond. Therefore, no additional definitions for “Disturbed area” or “Bonded area” are needed in the regulation.

4 VAC 25-31-130, Mineral mining plans. Three commenters suggested replacing “...the conducting of reclamation simultaneously...” with “...reclamation concurrently...” in this section as well as throughout the proposed regulations for clarity. When planning for the operation of a mineral mine, the applicant shall make provision to assure that reclamation of the mined land takes place simultaneously with the mineral extraction. This requirement is contained in Section 45.1-182.1 B 2 of the Code of Virginia. The commenters are correct that the terms “simultaneously” and “concurrently” have the same meaning. We have elected to continue to use the same terminology as in the Code of Virginia, with the intent that reclamation of mined land shall take place at the same time as the mining. We therefore did not make this suggested change.

4 VAC 25-31-130, Mineral mining plans. One commenter inquired as to the meaning of the term “qualified person”, the person that is required to prepare designs for mining plans, and who will make the determination of a person’s qualifications. The intent of this requirement is for the person who prepares a permit application to be sufficiently skilled and capable of preparing mining plans so that the standards of these regulations are met and the resulting operations adequately protect the public and the environment. It is the responsibility of the permit applicant to ensure that a competent person prepares his applications. Where additional skill and experience are required, the regulations specify that skill, such as limiting the preparation of maps to professional engineers, licensed land surveyors, licensed geologists and standard mapping services in 4 VAC 25-31-150.B.1.

4 VAC 25-31-130, Mineral mining plans. A commenter suggested deleting the requirement that a copy of the Virginia Department of Transportation construction permit be included in permit applications for mine roads that connect to public roads. The commenter believes that the VDOT permit is a separate issue, and should not be a prerequisite to applying for or obtaining a state mining permit. We believe that how the mine roads intersect or access public roads is not a separate issue. Section 4 VAC 25-31-130 A requires that design and construction plans shall be included in the permit application. These plans must include the designs for mine roads that intersect with public roads. In order to protect the safety of the public on roads where trucks and other mine traffic enters and exits, special minimum standards have been established by the Virginia Department of Transportation for these entrances. We have elected to accept the VDOT entrance standards for mine access roads to avoid duplication and possible inconsistencies for the regulated community. Therefore, permit applicants must demonstrate that their road designs meet the standards for public protection by including a copy of the VDOT construction permit with the application. DMME will not approve the entrance road construction portion of a mine permit application until the applicant provides the VDOT permit.

4 VAC 25-31-130, Mineral mining plans. Several commenters expressed concern that the proposed regulations would require a plan for minimization of adverse effects from mining on water quality or quantity in all cases where mining is proposed to take place below the groundwater table. Commenters suggested language that would make it clear that an assessment

of the potential for mining impacts should be done initially, and take into account such factors as the mine location, type of mining operation to be conducted, surrounding properties and water resources. If the potential for adverse impacts on water quality and quantity are identified in this assessment, then a plan to minimize those effects should be prepared and included in the permit application. We agree that before any plan for the minimization of adverse affects of mining on water resources can be prepared, an initial assessment of the surface and ground water systems around the proposed mine must completed, and an estimate of the probable impacts of the proposed mining on those systems should be prepared. Additional language has been included in the rule to clarify that this initial assessment should be completed, and should be the basis for the plan to minimize the adverse affects of mining on surface and ground water resources.

Commenters also felt that the regulation regarding the protection of water resources should be limited to sand and gravel operations. Commenters referenced the current rule 4 VAC 25-30-340 A as support for this position. The commenters are correct that 4 VAC 25-30-340 A applies to sand and gravel mining below the water table. It is not correct, however, to apply the regulations to only sand and gravel mineral mines as the commenters suggest. Mining of all types can have adverse effects on water quality and quantity. One of the purposes of these revised rules is to consolidate and simplify the rules. Specifically, standards that have been located in several parts of the current rules have been brought together in a single section. In this case, ground water protection requirements that apply to mineral mines in general have been located in the Mineral Mining Manual Drainage Handbook. The purpose of these rule changes, which is to present all the regulatory requirements in a clear, concise format, will help prevent future confusion such as this.

4 VAC 25-31-140 A, Marking of permit boundaries. A commenter suggested that either a definition of “Permit boundary” be included in the regulations, or that subsection A. should be rewritten to exclude the marking of permit boundaries when the adjacent property is also owned or controlled by the permit applicant. In response to comments identifying the need to clarify the definition of “Permitted area” in 4 VAC 25-31-10, we have revised the definition to specify that the permitted area is the area within a defined boundary shown on the application map. This defined boundary should be able to be located at the proposed mine site. The permit boundary defines the area in which the mine operator may conduct his approved mining activities. The permit boundary also defines the adjacent property owners who receive notification of the permit application and who can make objections to it. The records of the Department, and the calculation of permit fees depend on the accurate location of the permit boundary. For these reasons, the permit boundary must be a defined boundary in the permit application, and must be able to be clearly determined during the mining activities. The commenter’s suggestion that the marking of the permit boundary at the mine should be limited to locations where the operator does not own or control the adjacent land does not allow these purposes to be fulfilled. We therefore are keeping the proposed language and are not making the suggested change.

4 VAC 25-31-150 B 4, Maps. One commenter suggested that the distance from the proposed permit boundary in which sensitive features (such as cemeteries, oil and gas wells, underground mine workings, streams, creeks and other bodies of public water, public utilities and utility lines, public buildings, public roads, churches, and occupied dwellings) are shown, should be reduced from 1000 feet to 500 feet. The commenter referenced Section 45.1-181 (e) of the Code of

Virginia that states that maps shall show streams, creeks and other bodies of public water that are within 500 feet of the proposed permit area. The commenter is correct that Section 45.1-181 (e) of the Code of Virginia requires the application map to show streams, creeks and other public water bodies if they are within 500 feet of the proposed mine boundary. Other features, such as adjacent deep mining and surface property boundaries, are required to be shown by that Section, but no distance is given. 4 VAC 25-31-330 requires mining activities to be conducted in such a manner that protects cemeteries, public utilities, public buildings, public roads, churches, and occupied dwellings. 4 VAC 25-31-360 C requires mining activities to be conducted so that the impact on water quantity and quality are minimized. Also, 4 VAC 25-31-420 requires mines to be screened from public roads, public buildings, recreation areas, and occupied dwellings. The location of the features on permit maps is necessary in order to adequately plan the mining activities to ensure their protection, and is necessary to allow the Department to evaluate the mining application for compliance with these rules. While the protection standards are not limited to finite distances from the mine, and may extend beyond 1000 feet, we have found that locating these features only up to 500 feet from the mine boundary is inadequate to evaluate possible effects of the proposed mine, and have therefore adopted the 1000 feet distance as proposed.

4 VAC 25-31-160 A, Legal right. A commenter stated that it is often difficult to provide proof of right of entry to the land covered in the mining permit application, consisting of a copy of the lease or deed, or the names of the parties to the lease or deed, date of execution, and the recording information. The commenter suggested that an alternative to the lease or deed could be developed, which would be an agreement for the applicant to enter the property that requires only the signature of both parties and a description of the property. Section 45.1-181 of the Code of Virginia requires permit applications to include the source of the operator's legal right to enter and conduct operations on the land that will be covered by the permit. Section 45.1-188 of the Code of Virginia makes it unlawful for any landowner to interfere with the operator in completing his obligations to reclaim mined land. Finally, Section 45.1-180.2 E states that nothing in the Mining Act creates or otherwise affects property rights. For these reasons, we are requiring that proof of right of entry consisting of a lease or deed be included in the permit application. If the operator possesses a source of legal right other than lease or deed, it may be submitted for consideration.

4 VAC 25-31-170 B and E, Permit notifications. One commenter suggested that these two subsections are redundant and should be combined. To clarify this requirement, the address of the DMME's Division of Mineral Mining has been added to 4 VAC 25-31-170 A, 4 VAC 25-31-170 B has been eliminated, and the remaining subsections have been edited and renumbered to reflect this deletion.

4 VAC 25-31-210 D, Annual renewal. This subsection allows a certification statement instead of a new map to be submitted at annual renewal, if no substantive changes have been made in the map. A commenter suggested that the statement that may be submitted in lieu of the new map at renewal should contain a certification that no "substantive" changes have been made in the map, to be consistent with the introductory sentence to this subsection. The commenter is correct that the rule as proposed is inconsistent in stating that no new map is required at annual renewal if no substantive changes have been made to it. Because maps must be accurate and reflect the

progress of mining activities, any changes in the information that must be shown on maps should result in a new map being submitted to the Department. The final rule has been revised to provide that a statement may be submitted at renewal in lieu of a new map only if no changes have occurred in the map.

4 VAC 25-31-290, Intensive agricultural use. A commenter recommended that the harvesting of a normal crop yield not be required for proving the success of reclamation for mined land that has been returned to an intensive agricultural post-mining land use. The commenter recommended that the success standard should be that the land be planted at standard rates and that agricultural best management practices are employed. The commenter also recommended that the landowner should provide a written assurance that the land will be planted for agricultural use. The commenter felt that the mine operator has no control over the land once it is returned to the landowner. Section 45.1-182.1 of the Code of Virginia specifies that permit applications shall include specifications for returning mined land to a condition that is suitable for its proposed use after reclamation. The permit application must include the actions the operator will take to assure suitable reclamation is completed so that the land use can be achieved as an integral part of the mining operation. Also, agricultural uses are among the land uses that the Code of Virginia encourages. To determine the success of reclamation in order to achieve the planned post mining use, we are adopting performance standards for the various land uses. The minimum standard of performance for intensive agricultural land uses is the harvesting of a normal yield for a crop from the reclaimed land. While we recognize that a mine operator may have to work with the landowner to achieve a normal crop yield, the standard recommended by the commenter that agricultural land would be considered adequately reclaimed based on the planting of crops, and not the harvesting would not demonstrate that reclamation is completed. Therefore, the requested change was not made.

4 VAC 25-31-360 A and B, Operation and reclamation. A commenter suggested the term “conducted simultaneously” be replaced with the term “conducted concurrently” in both subsections. This comment is similar to comments discussed earlier for 4 VAC 25-31-130. Mineral mining plans. Section 45.1-182.1 B 2 of the Code of Virginia requires that reclamation of mined land take place simultaneously with the mineral extraction. While the terms “simultaneously” and “concurrently” have the same meaning, we have elected to use the same terminology as the Code of Virginia, with the intent that reclamation of mined land shall take place at the same time as the mining.

4 VAC 25-31-360 C, Operation and reclamation. One commenter recommended that the proposed performance standard that mining activities should be conducted to minimize their impact on water quality and quantity be limited so that only “any significant adverse impact” to water quality and quantity are minimized. The intent of the Mining Act as stated in Section 45.1-180.2 of the Code of Virginia is to minimize the effects of mining on the environment. Adverse affects, including the disruption of drainage patterns, the increased siltation of streams and other forms of pollution are to be avoided. The Code of Virginia does not limit its scope to the control of only significant adverse impacts. Therefore, the requirement that mining operations shall be conducted to minimize the impact on water quality and quantity is adopted in the final regulation as was proposed.

4 VAC 25-31-360 H, Operation and reclamation. A commenter believed that this subsection is too restrictive and may unnecessarily restrict post-mining land use development opportunities. The commenter felt that ensuring the reclamation of mined land results in a post mining use that is compatible with the surrounding land is a zoning/land use determination and not a reclamation regulation issue. The commenter went on to state that zoning has been kept separate from mine permitting, and that as long as the mine operator returns mined land to a beneficial use, the decision on the use should be that of the operator and the land owner. Section 45.1-180.2 B of the Code of Virginia finds that both the mining of minerals and the rehabilitation of mined land will be assured through proper planning and consideration of the impact of mining on the environment as well as the land use of surrounding areas. To achieve these purposes, we have adopted the standard as proposed that after reclamation the post mining land use shall be achievable and compatible with the surrounding land use. Before a land use is implemented, any other permits and approvals must be obtained. The commenter’s assertion that reclamation permitting and land use regulation are separate actions is correct. However, each will play a role in the restoration of mined land in order to achieve land uses that are compatible with the uses of property around the mine site.

4 VAC 25-31-400 D, Overburden, Refuse, Spoils, and Waste Fills. One commenter felt that the standards for the plans and specifications for fills that do not have the capability to impound water or other liquid or semi-liquid materials were not performance standards that should be included in this Part, but were requirements for information that should be submitted in a permit application. The commenter felt that use of the mandatory term “shall” in the subsection limited the ability of the Department to accept plans and specifications that may vary in scope and detail commensurate with the size, location and hazard potential for the fill. Also, the proposed regulations should be limited to standards for the ultimate performance of fills, and should not be prescriptive in nature. The commenter is correct that one of the intents of these regulations is to adopt standards that are performance based, rather than design based. This should allow applicants to design mine plans to better suit individual site conditions, and to operate mines in a more cost effective manner. Where necessary, we have included in the rules sufficient detail to provide direction to the regulated community, and to allow the efficient administration of the program by the agency. We also recognize that there are areas on mine sites where fill material is placed that does not warrant an engineering design of the scope and detail of other more substantial placement structures. The language of the proposed rule was thought to be broad enough to allow for engineering details and design drawings that are appropriate for the size of the fill, its location, and the hazard potential. To clarify this intent, we have revised this section

to require an engineering design report as necessary, for fills that do not have the capability to impound water or other liquid or semi-liquid materials, which shall be appropriate for the size of the fill, its location, and the hazard potential.

4 VAC 25-31-420 A, Screening. A commenter suggested that screening should only be provided “where feasible and practicable”, and that references to the use of screening “to improve the appearance of the mining site” should be eliminated. The commenter felt that achieving improvements in the appearance of mines is too subjective, based on personal preferences and the proposed regulation is not complimentary to the mining industry. We understand that what is considered a pleasing appearance varies for individuals. We also have received concerns from the public and those who live and travel near mines about the appearance of some sites. Section 45.1-180.2 A of the Code of Virginia finds that mining can temporarily and in some cases permanently destroy scenic beauty. Screening of mine sites is standard industry practice and can be very effective in meeting these needs. For these reasons the recommendation of the commenter is not accepted and the rule is adopted as proposed.

4 VAC 25-31-420 B, Screening. The same commenter recommended that the minimum width of undisturbed forest that must be left if no other screening is provided should be reduced from 100 feet to 50 feet. The commenter believed that 100 feet of forest is excessive and restricts development of the site. The commenter may be correct in his belief that adequate visual screening may be provided with less than 100 feet of trees, in some circumstances. The commenter also correctly observes that most mines are screened by constructed berms with planted trees. In the case of constructed berms, the requirement that 100 feet of trees be provided does not apply. In cases where undisturbed forest is the only screening provided, 100 feet is recommended in the Mineral Mining Revegetation Guidelines, Table 12, for noise control. These guidelines were prepared with input from the Virginia Department of Forestry, the Virginia Tech Departments of Agronomy, Forestry, and Fisheries and Wildlife, and the U.S. Natural Resources Conservation Service. Based on the recommendations of these organizations the 100 feet screening distance for undisturbed forested buffers is necessary for screening.

4 VAC 25-31-430 B 1, Completion of active mining. A commenter recommended that one of the conditions that would need to be met for a mine to remain under permit but inactive should be that all disturbed areas are stabilized, instead of the proposed requirement that all disturbed areas are reclaimed. It is not the intent of this regulation to require the final reclamation of a site that is approved to remain inactive for more than one year, but still under permit. The rule allows culverts and drainage controls to remain in place, and improvements such as machinery and equipment to be maintained on site. The intent of the rule is for all disturbed areas to be regraded and revegetated in accordance with the mining plans, including conducting reclamation simultaneously with the mining operation. For this reason, the requirement that mined areas be reclaimed to prevent erosion and sedimentation on sites that will be inactive for more than one year is adopted.

4 VAC 25-31-450, Sediment basins. Commenters agreed with the proposed rule that the ability to use alternate sediment control measures that are as effective as sediment basins, including reduced basin storage capacity for small short term disturbances, would provide necessary protection of surface water resources while allowing flexibility for site-specific conditions. The

commenters suggested, however, that further guidance should be included to give additional assistance to operators, inspectors and permit reviewers in designing and evaluating these measures. We have considered these comments and believe the rule as proposed provides proper guidance. The sediment storage standard for drainage control on mine sites is 0.125 acre feet of storage capacity per acre of disturbed land draining into the sediment basin. Designers should use this standard as guidance for their designs. In situations where this standard cannot be met, or in the case of small, short-term disturbances, the sediment control structure that is proposed can be evaluated against the specific site conditions. We also believe it would be confusing to incorporate other standards from which to choose. For these reasons, we believe that the rule gives the commenter the needed flexibility and have adopted the rule as proposed.

### Detail of Changes

*Please detail any changes, other than strictly editorial changes, that are being proposed. Please detail new substantive provisions, all substantive changes to existing sections, or both where appropriate. This statement should provide a section-by-section description - or crosswalk - of changes implemented by the proposed regulatory action. Include citations to the specific sections of an existing regulation being amended and explain the consequences of the changes.*

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4 VAC 25-31-10, Definitions, (old Section 4 VAC 25-30-10 through 20). The new section eliminates terms defined in the Code of Virginia, Section 45.1-180, clarifies old terms and updates terms to match changes in the law. Minor edits were made in the final regulation to “flood” and “permitted area”.

4 VAC 25-31-20, Scope, (old Section 4 VAC 25-30-30). The wording was clarified.

4 VAC 25-31-30, Permittee, (old Section 4 VAC 25-30-40). This clarifies the purpose of the regulation. It was unnecessary to state why the regulation was promulgated.

4 VAC 25-31-40, Modifications (old Section 4 VAC 25-30-70). No significant changes.

4 VAC 25-31-50, Mineral Mine Operator’s Manual, (old Sections 4 VAC 25-30-100 Drainage and Sediment Control Handbook and 4 VAC 25-30-110, Revegetation Guidelines). The requirements for drainage, sediment control, and revegetation that are not covered in the regulation are addressed in the Operator’s Manual.

4 VAC 25-31-60, Other governmental agencies and laws, (old Sections 4 VAC 25-30-580 through 590). This updates code changes.

4 VAC 25-31-70, Exemptions, (new section). This section outlines what the regulation does not apply to and what does not constitute mineral mining.

4 VAC 25-31-80, Contiguous Area, (old Section 4 VAC 25-30-120). No significant changes.

4 VAC 25-31-90, Operator Conference with the Operator, (old Section 4 VAC 25-30-140). Clarified to allow the operator conference prior to approval rather than prior to submittal of the permit application.

4 VAC 25-31-100, Mineral Mining Permits, (old Section 4 VAC 25-30-150). Updated to reflect changes in the regulation and code. The regulation now allows permits to be transferred.

4 VAC 25-31-110, Permit Application, (old Section 4 VAC 25-30-160). Updated to reflect changes in the regulation and code. The regulation does not require the application to be notarized.

4 VAC 25-31-120, Permit fees and Bonds, (from old Section 4 VAC 25-30-170 (1)). The section has no significant changes. It has been updated to match the Code of Virginia and the language has been clarified to provide bonding acceptable to the Director needs only to be submitted once the permit application is deemed complete. Bonding requirements were moved to their own section (4 VAC 25-31-220 through 320).

4 VAC 25-31-130, Mineral Mining Plans, (from old Section 4 VAC 25-30-170 (4)). The section has been amended to address potential impact to groundwater. The section now requires an assessment of the groundwater impact to be a part of the permit application. More detailed requirements for mine plans are outlined in 4 VAC 25-31-330 through 550.

4 VAC 25-31-140, Marking of Permit Boundaries, (new section). This requires the permit boundary to be marked, if natural features are not readily identifiable, when mine activities are within 100 feet of the permit boundary. Part B was edited for clarity .

4 VAC 25-31-150, Maps, (from old Section 4 VAC 25-30-170 (4) through (230)). No significant changes.

4 VAC 25-31-160, Legal Right, (old section 4 VAC 25-30-170 (5 and 6)). This section is updated to be consistent with the Code of Virginia. Part B was edited for clarity.

4 VAC 25-31-170, Permit Notifications, (old section 4 VAC 25-30-170 (7 and 8)). The section has been amended to clarify notification requirements as well as to be consistent with regulatory changes. In addition, the final regulation was amended in response to public comment and to eliminate redundant language.

4 VAC 25-31-180, Impoundments, (old Section 4 VAC 25-30-470). The section was amended to meet code changes. The section requires a professional engineer to certify construction plans and specifications for impoundments rather than a "qualified" engineer. Specific requirements are outlined for design and construction specifications, examination and monitoring, emergency procedures, and closure and abandonment plans. 4 VAC 25-31-500 includes detailed engineering and safety requirements.

4 VAC 25-31-190, Availability of Permits, (new section). Requires permits and a copy of the permit application to be kept on the mine site.



4 VAC 25-31-200, Exemption of Restricted Mining, (old Section 4 VAC 25-30-180). The section was amended to clarify regulatory requirements, i.e. less than a “total” of one acre as opposed to less than one acre disturbed. The amended language removes “restricted” from the description of the mine operator.

4 VAC 25-31-210 A., Annual Renewal, (old Section 4 VAC 25-30-250). The language was clarified to state that the annual renewal would occur within 10 days of the renewal date as opposed to 10 days following the renewal date. It also removed the language requiring a renewal progress report and maps to be received by the anniversary date.

4 VAC 25-31-210 B., Annual renewal, (old Section 4 VAC 25-30-260). The language was clarified to state that the renewal fee is to be submitted with the permit renewal as opposed to submitting the fee with the progress report.

4 VAC 25-31-210 C., Annual Renewal, (old Section 4 VAC 25-30-270). The language was amended for clarity.

4 VAC 25-31-210 D., Annual Renewal, (old Section 4 VAC 25-30-240). The language was amended for clarity. The requirement for a notarized signature was removed. In the final regulation, the term “substantive” was removed to address changes to mine maps.

4 VAC 25-31-210 E., Annual Renewal, (old Section 4 VAC 25-30-280), The language was amended for clarity. The 30 day submittal requirement was removed and the section was amended to reference the bonding requirements in Section 4 VAC 25-31-220 through 270.

4 VAC 25-31-220 A through E, Requirements for Bonding of Mineral Mines, (parts of old Section 4 VAC 25-30-170). This requires the bond be submitted once the permit is deemed complete, consistent with 4 VAC 25-31-120. The old language taken from Section 4 VAC 25-30-170 was amended to be consistent with the code. Also, language was added to incorporate the bonding requirements of Chapter 16, Title 45.1 of the Code of Virginia.

4 VAC 25-31-230, Period of Liability, (old Section 4 VAC 25-30-170, (3a)). The language was amended for clarity.

4 VAC 25-31-240, Bond Amount, (old Section 4 VAC 25-30-170, (2a) and (2c)). The language was amended for clarity.

4 VAC 25-31-250, General Terms and Conditions of Bond, (old Section 4 VAC 25-30-170, (2a)). The language was amended for clarity.

4 VAC 25-31-260, Form of Performance Bond, (old Section 4 VAC 25-30-170 (2b)). The language was amended for clarity.

4 VAC 25-31-270, Replacement of Bonds, (new section). This section states that the operator may replace a bond with bonds of equal coverage and the division will not release a bond until the replacement bond is found to be an acceptable replacement.

4 VAC 25-31-280, Release of Bond,(new section). The language was amended for clarity and to be consistent with Chapter 16, Title 45.1 of the Code of Virginia. The language ensures that the bond is not to be released until mine land reclamation is completed and meets post mine land use requirements.

4 VAC 25-31-290, Intensive Agricultural Use, (old Section 4 VAC 25-30-560). The language was amended for clarity. The normal crop yield requirement was amended to equal the five year average of the county rather than the Commonwealth.

4 VAC 25-31-300, Inspections for Adequacy of Vegetation and Bond Release, (old Section 4 VAC 25-30-570). The language was amended to clarify post mine land reclamation inspection requirements and to be consistent with Chapter 16, Title 45.1 of the Code of Virginia. Terminology was edited in the final regulation for consistency.

4 VAC 25-31-310, Bond Forfeiture, (new section). The language was amended to clarify circumstances where bond forfeitures are applicable (i.e., reclamation, permit non-compliance) and to be consistent with Chapter 16, Title 45.1 of the Code of Virginia.

4 VAC 25-31-320, Minerals Reclamation Fund, (old Section 4 VAC 25-30-170 (3a)). The language was amended to clarify how the operator pays on estimated acreage when making the annual payments into the Fund. The section also outlines how payments are returned to the operator as reclamation of the mine land proceeds to completion.

4 VAC 25-31-330, Protected Structures and Sensitive Features, (old Section 4 VAC 25-30-210). The language was amended for clarity. This provides additional protection to structures outside of the mine area that may be impacted. The section adds churches to the description of protected structures.

4 VAC 25-31-340, Signs, (old Section 4 VAC 25-30-130). The language was amended for clarity.

4 VAC 25-31-350, Roads, (old Section 4 VAC 25-30-300 B through 350). The section was amended for clarity. It now includes a previous section on Construction Standards. Subsection B 2 was edited in the final regulation for regulatory consistency.

4 VAC 25-31-360, Operation and Reclamation, (old Section 4 VAC 25-30-340). The language was amended to be consistent with the Code of Virginia and for clarity.

4 VAC 25-31-370, Slopes, (old Section 4 VAC 25-30-350). The language was amended for clarity.

4 VAC 25-31-380, Treatment of Acid Material, (old Section 4 VAC 25-30-350). The language was amended for clarity.

4 VAC 25-31-390, Handling of Spoil piles and Stockpiles of Minerals, (old Section 4 VAC 25-30-350). The language was amended for clarity.

4 VAC 25-31-400, Overburden, refuse, spoil, and waste fills, (new section). The language incorporates requirements from the Sediment and Drainage Control Handbook, is amended to be consistent with the Code of Virginia, and for clarity. Part D was edited in the final regulation to make it clear that designs for fills must account for local site conditions.

4 VAC 25-31-410, Storage of Top soil, (old Section 4 VAC 25-30-380). No changes.

4 VAC 25-31-420, Screening, (old Section 4 VAC 25-30-390). No significant changes.

4 VAC 25-31-430, Completion of Active Mining, (old Section 4 VAC 25-30-400). The language was amended for clarity. The reference to the director was changed to “in accordance with mining plans and proper engineering practices”.

4 VAC 25-31-440, Drainage and Sediment Control, (old Section 4 VAC 25-30-410). The language was amended for clarity.

4 VAC 25-31-450, Sediment Basins, (old Section 4 VAC 25-30-420). The language was amended for clarity. Substantive changes include a basin size requirement to correlate with the drainage area, required cleaning to prevent uncontrolled release of sediment, and providing for alternative measures of sediment control.

4 VAC 25-31-460, Intermittent or Perennial Streams, (old Section 4 VAC 25-30-430 and 440). The language was amended for clarity and to incorporate the use of diversion structures to divert extreme runoff during periods such as heavy storms.

4 VAC 25-31-470, Natural Drainageways, (old Section 4 VAC 25-30-450). The language was amended for clarity. The proposed language omits the reference to the drainage handbook.

4 VAC 25-31-480, Diversions, (old Section 4 VAC 25-30-430). The language was amended for clarity. The proposed language incorporates the requirement for diversions to be able to handle peak runoff from one or ten year storms.

4 VAC 25-31-490, Water Quality, (old Section 4 VAC 25-30-460). No substantive changes.

4 VAC 25-31-500, Water Impoundments, (old Sections 4 VAC 25-30-180,470, 490, and 500). The language was amended to be consistent with the Chapter 18.1 of 45.1 of the Code of Virginia and for clarity. The section incorporates Code requirements to conform to proper engineering standards for impoundments and allows flexible use of guidance documents from the Corps of Engineers, US Department of Agriculture, US Department of Interior, the US

Department of Commerce and others as approved by the Director. The chart was edited in the final version to make corrections to errors found in the proposed regulation.

4 VAC 25-31-510, Alternative Methods of Stabilization, (old Section 4 VAC 25-30-510). The language was amended to add the option of the operator to use gabions, shotcrete and concrete in addition to riprap.

4 VAC 25-31-520, Revegetation, (old Section 4 VAC 25-520). The language was amended for clarity. The section eliminates the reference to the Revegetation Guidelines and incorporates the reference to the Mineral Mine Operator's Manual.

4 VAC 25-31-530, Process in Revegetation, (old Section 4 VAC 25-30-530 and 570 B). The language was amended for clarity. Part D was amended to state actual application rates for mulching as opposed to referencing the revegetation guidelines.

4 VAC 25-31-540, Trees and Shrubs, (old Section 4 VAC 25-30-540). The language was amended for clarity. It was felt that it was more beneficial to state specific revegetation requirements in the section rather than referencing the revegetation guidelines.

4 VAC 25-31-550, Intensive Agricultural Use, (old Section 4 VAC 25-30-560). The language was amended for clarity. The normal crop yield requirements were changed to match the county as opposed to the Commonwealth.

4 VAC 25-31-550, Informal review, (new section). The section references the Code of Virginia, Section 9-6.14:11 for informal review guidance.

4 VAC 25-31-560, Formal Review, (new section). The section references Section 45.1-194 of the Code of Virginia, Appeals to the Board of Surface Mining Review, and incorporates guidance for formal review

### Family Impact Statement

*Please provide an analysis of the regulatory action that assesses the impact on the institution of the family and family stability including the extent to which the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.*

The purpose of the promulgation of this final regulation, Reclamation Regulations for Mineral Mining, 4 VAC 25-31, is to update regulatory requirements with present industry standards. In doing this it was necessary to replace the Minerals Other Than Coal Surface Mining Regulations, 4 VAC 25-30 with a similar but new regulation that sets forth current industry standards and practices. This action will not have a negative impact on the institution of the family or on family stability. Ensuring that mine land is properly reclaimed and returned to beneficial use should have a positive effect on the family by protecting the environment in the areas around mine sites.